

## Draft Compatibility Determination

### Title

Draft Compatibility Determination for Big Game Hunting, Southern Maryland Woodlands National Wildlife Refuge.

### Refuge Use Category

Hunting

### Refuge Use Type(s)

Hunting (big game)

### Refuge

Southern Maryland Woodlands National Wildlife Refuge

### Refuge Purpose(s) and Establishing and Acquisition Authority(ies)

- “for use as an inviolate sanctuary, or for any other management purpose, for migratory birds....” 16 U.S.C. § 7J5d (Migratory Bird Conservation Act of 1929).
- “to conserve (A) fish or wildlife which are listed as endangered species or threatened species...or (B) plants...” 16 U.S.C. § 1534 (Endangered Species Act of 1973).
- “for incidental fish and wildlife-oriented recreation; the protection of natural resources; and the conservation of endangered species or threatened species...” 16 U.S.C. § 460K-1 (Refuge Recreation Act of 1962).

### National Wildlife Refuge System Mission

The mission of the National Wildlife Refuge System (NWRS), otherwise known as Refuge System, is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans (Pub. L. 105-57; 111 Stat. 1252).

### Description of Use

Is this an existing use?

No

This compatibility determination analyzes and establishes compatibility of big game hunting on the refuge.

### What is the use?

The use is public hunting of white-tailed deer and wild turkey on Southern Maryland Woodlands NWR. Hunting was identified as one of six priority public uses of the Refuge System by the National Wildlife Refuge System Administration Act (NWRSA) of 1966, as amended by the Refuge System Improvement Act of 1997 (Public Law 105-57), when found to be compatible.

### Is the use a priority public use?

Yes

### Where would the use be conducted?

Hunting would occur on the current extent of the refuge (31-acres) on the Nanjemoy-Mattawoman Unit. Additional areas will be evaluated for compatibility as units are acquired as part of the refuge in the future.

### When would the use be conducted?

Big game hunting on the refuge will generally take place within the season dates established by the State of Maryland. White-tailed deer hunting is normally between September and late January. Hunters can access the refuge up to 2 hours before legal sunrise and must exit within 1 hour after legal sunset. Shooting hours follow the State regulations of one-half hour before sunrise and one half hour after sunset. Hunting for wild turkeys will be during the State Spring season, April through May, and brief winter season in January on designated hunt days and will follow the State shooting hours. Specific regulations for each hunt will be published by the refuge in advance of the hunt seasons on the website.

### How would the use be conducted?

Hunters may access the refuge by walking in from the one existing main access point (Figure 1). Hunters must follow state regulations and maintain appropriate distance from structures and houses while hunting. The hunting program will be reviewed annually or as needed in consultation with Maryland DNR to assess its effectiveness and ensure wildlife populations and habitat quality are managed appropriately. In addition, refuge-specific regulations listed under "Stipulations Necessary to Ensure Compatibility" will apply.

### Why is this use being proposed or reevaluated?

Hunting is a healthy, traditional recreational use of renewable natural resources deeply rooted in America's heritage and can be an important wildlife management

tool. At Southern Maryland Woodlands NWR, hunting will serve as a useful habitat management tool.

Furthermore, Department of the Interior Secretarial Order 3356 directs the Service to enhance and expand public access to lands and waters on NWRs for hunting, fishing, recreational shooting, and other forms of outdoor recreation. The proposed action promotes one of the priority public uses of the Refuge System and provides opportunities to promote stewardship of our natural resources and increase public appreciation and support for the refuge.

### **Availability of Resources**

The resources necessary to provide and administer this use are available within current and anticipated regional refuge resources and budgets. Staff time associated with administration of these uses will include a combination of support from regional staff and nearby refuge staff. Funds are needed for staff time for planning and annual program preparation, outreach and public relations, enforcement, and boundary and sign posting.

### **Anticipated Impacts of the Use**

#### **Potential impacts of a proposed use on the refuge's purpose(s) and the Refuge System mission**

The effects and impacts of the proposed use to refuge resources, whether adverse or beneficial, are those that are reasonably foreseeable and have a reasonably close causal relationship to the proposed use of Hunting. This CD includes the written analyses of the environmental consequences on a resource only when the impacts on that resource could be more than negligible and therefore considered an “affected resource.” Resources that will not be more than negligibly impacted by the action, including geology, hydrology, air and water quality, threatened and endangered species, cultural resources, and socioeconomics, have been dismissed from further analyses. The overall impacts of this use are fully reviewed and discussed in the Southern Maryland Woodlands NWR Hunting Environmental Assessment.

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

White-tailed deer are common and widespread in Region B (Central, Southern and Eastern Maryland) of the State, where habitat quality is considered good, the population was estimated at about 205,000 deer in 1998. The population increased

slightly, to approximately 238,000 deer in 2002. Since 2013, the Region B deer population has remained stable up to 2018 (MDDNR 2020).

Maryland annually monitors deer abundance using harvest estimates and age structure of the deer herd to inform management decisions.

The MDDNR conducts an annual observation survey for wild turkey during the months of July and August of wild turkey reproductive success since 1993. The primary purpose of this long-term survey is to estimate reproductive success. The Southern Region (Prince George, Calvert, Charles, and St. Mary's Counties) had the highest poult per hen ratio in the state at 3.0 poults per hen (MDDNR, 2024). Short-term impacts resulting from anthropogenic disturbance from visitors engaging in hunting activities may include changes in wildlife behavior, distribution or abundance (Leblond et al. 2013). For example, Gutzwiller et al. (1994) found that the singing behavior of some species of songbirds were altered by low levels of human intrusion.

Competition between target species and other wildlife is primarily associated with crop depredation by white-tailed deer in moist soil impoundments and agricultural fields, both on the refuge, as well as adjacent private land. This depredation can drastically reduce the energetic carrying capacity provided by these habitat management actions for waterfowl. In addition, over-browsing of forest understory can have a negative effect on nesting passerines (Chollet and Martin 2013; Tymkiw et al. 2013).

In general, the presence of humans will disturb most animals, which typically results in short-term adverse impacts without long-term effects on individuals and populations. Because of the low-density, dispersed nature of people hunting on the refuges, chronic adverse impacts on wildlife populations from hunting-related disturbances would be negligible in most instances. Areas of known communal eagle roosts, waterfowl concentrations, or other sensitive areas are typically closed to most hunting activity.

The physical effects on vegetation from hunting are expected to be minimal, as hunters tend to travel on existing roads and game trails. Some off-trail hiking is anticipated, but it will generally be dispersed over large areas. Possible negative cumulative impacts of recreational hunting include temporary trampling of vegetation and light soil erosion. Spring turkey season could cause some trampling effects to growing plants, especially in wet areas; however, we do not expect these impacts to be substantial, because turkey hunter density is expected to be low and dispersed. Most hunting occurs during the fall, but hunters tend to disperse when in the woods; as a result, we do not anticipate substantial impacts to habitats. Some

hunt seasons extend into winter when the ground is either frozen, covered in snow, and/or when plants are dormant. Hunters will have little impact on plants during this period. For these reasons, cumulative impacts to plant communities and soils are not likely to be significant during the fall, winter, or spring hunting seasons. The impacts of the existing deer herd on vegetation on the refuge, particularly agricultural crops, are striking. Excessive white-tailed deer herbivory has negative impacts on the refuge farm program. The herd's impacts to forest resources are more subtle.

Positive effects on vegetation may result from maintaining white-tailed deer populations at levels commensurate with the carrying capacity of available habitat. The impacts of dense deer populations on forest regeneration and the composition and diversity of the herbaceous understory have been well-documented (Behrend et al. 1970; Côté et al. 2004; Tierson et al. 1966; Tilghman 1989; White 2012). Disturbances that typically promote forest diversity, such as fire and small canopy gaps, may not have the desired benefits if browsers are overabundant (Nuttall et al. 2013). An overabundance of deer can suppress native vegetation, facilitating the success of invasive species in forested habitats (Knight et al. 2009). Lessening the impact of excessive deer herbivory is a key forest management strategy (Nuttall et al. 2013; White 2012) and will likely become even more important as the climate warms (Galatowitsch et al. 2009).

Well-managed hunting has the potential to effectively control deer populations (Brown et al. 2000; Oyer and Porter 2004). The net impact of deer hunting on vegetation should be positive, and result in better regeneration of forest canopy species and an increase in the diversity of the herbaceous understory.

### Long-term impacts

In general, the presence of humans will disturb most animals, which typically results in only brief, short-term impacts without long-term effects on individuals and populations. Because of the low-density, dispersed nature of hunters on the refuge, chronic adverse impacts on wildlife populations from hunting-related disturbances would be negligible in most instances. Areas of known communal eagle roosts, waterfowl concentrations, or other sensitive areas are typically closed to most hunting activity.

We anticipate positive long-term impacts from visitors having the opportunity to gain an appreciation for the refuge while hunting. Hunters have a long-standing tradition in wildlife conservation and allowing this use will encourage new hunters to learn about the tradition of hunting and the value of our national wildlife refuges.

## Public Review and Comment

The draft compatibility determination will be available for public review and comment for 14 days. The public will be made aware of this comment opportunity through posting on the Patuxent Research Refuge website. State and Tribes have been asked to review and comment on the draft compatibility determination. A hard copy of this document will be posted at the Patuxent Refuge Headquarters or Visitor Center located at Laurel, MD. It will be made available electronically on the refuge website: [www.fws.gov/southern-maryland-woodlands-national-wildlife-refuge](http://www.fws.gov/southern-maryland-woodlands-national-wildlife-refuge). Please contact the Refuge Manager if you need the documents made available in an alternative format. Concerns expressed during the public comment period will be addressed in the final document.

## Determination

Is the use compatible?

Yes

## Stipulations Necessary to Ensure Compatibility

To ensure compatibility with refuge purpose(s) and Refuge System mission, hunting can occur on the Southern Maryland Woodlands NWR in accordance with State and Federal regulations and special refuge-specific restrictions to ensure that wildlife and habitat management goals are achieved and that the program is providing a safe, high quality hunting experience for participants. This hunting program will be monitored and potentially modified or eliminated if any of the program's components are found not compatible. The following stipulations are necessary to ensure compatibility:

1. We only authorize the use of archery equipment for hunting at this time.

## Justification

The stipulations outlined above would help ensure that the use is compatible at Southern Maryland Woodlands NWR. Hunting is a priority wildlife-dependent use for the Refuge System through which the public can develop an appreciation for fish and wildlife. Service policy is to provide expanded opportunities for wildlife-dependent uses when compatible and consistent with sound fish and wildlife management and ensure that they receive enhanced attention during planning and management. Hunting satisfies a recreational need but hunting on national wildlife refuges can be an important, proactive management action that can prevent overpopulation and the deterioration of habitat. Disturbance to other species

would occur, but this disturbance is generally short-term. Suitable habitat exists on refuge lands to support hunting as proposed.

Additionally, hunting provides wildlife-dependent recreation to the public in a region where these opportunities are limited by private land ownership and development. Most private lands are posted as “No Trespassing,” and this limits hunting opportunities for hunters without the agreement of private landowners. The refuge provides a low-cost, safe, and enjoyable option.

This activity would not conflict with any of the other priority public uses or adversely affect biological resources. Therefore, through this planning process, we have determined that hunting on Southern Maryland Woodlands NWR, in accordance with the stipulations provided above, is a compatible use that will not materially interfere with, or detract from, the fulfillment of the Refuge System mission or the purpose(s) of the refuge. These priority public uses identified by Executive Order 12996 (March 25, 1996) and legislatively mandated by the Refuge System Administration Act of 1966 (16 U.S.C. sections 668dd-668ee), as amended by the Refuge System Improvement Act of 1997 (Public Law 105-57), have been found appropriate and compatible, and will provide opportunities through which the American public can develop an appreciation for fish and wildlife and contribute to achieving the mission of the NWRS.

### **Signature of Determination**

Refuge Manager Signature and Date

### **Signature of Concurrence**

Assistant Regional Director Signature and Date

### **Mandatory Reevaluation Date**

2040

## Literature Cited/References

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Figure(s)

