

U.S. Fish and Wildlife Service

Eastern Virginia Rivers National Wildlife Refuge Complex Hunting and Fishing Plan August 2026



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**Eastern Virginia Rivers
National Wildlife Refuge Complex
Hunting and Fishing Plan**

August 2026

U.S. Fish and Wildlife Service

**James River National Wildlife Refuge
Plum Tree Island National Wildlife Refuge
Presquile National Wildlife Refuge
Rappahannock River Valley National Wildlife Refuge**

**Headquartered at
336 Wilna Drive
Warsaw, Virginia 22572**

Submitted By:

Refuge Manager

**MARCIE
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Concurrence:

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Approved:

Refuge Chief, Northeast Region

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I. Introduction

National wildlife refuges are guided by the mission and goals of the National Wildlife Refuge System (Refuge System), the purposes of an individual refuge, U.S. Fish and Wildlife Service (FWS) policy, and laws and international treaties. Relevant guidance includes the National Wildlife Refuge System Administration Act (NWRSA) of 1966, as amended by the Refuge System Improvement Act of 1997, Refuge Recreation Act of 1962, and selected portions of the Code of Federal Regulations and Fish and Wildlife Service Manual.

The Eastern Virginia Rivers National Wildlife Refuge Complex (NWRC, Complex) is comprised of four individual refuges. Each refuge is established under specific legislation. Similarly, each refuge has one or more specific legal purposes for which it was established. The establishing legislation and purposes for the four refuges covered in this plan are given below.

Table 1. Refuge Purposes and Establishing Authorities

Refuge	Establishing Authorities	Refuge Purposes
James River NWR	...was established in March 1991 under authority of the Endangered Species Act.	“...to conserve...fish or wildlife which are listed as endangered species or threatened species” (Endangered Species Act of 1973, 16 U.S.C. 1534).
Plum Tree Island NWR	...was established in 1972 under authority of the Migratory Bird Conservation Act (16 U.S.C. § 715d), the Fish and Wildlife Act of 1956 (16 U.S.C. 742f(a)(4) and (b)(1)), and the Transfer of Certain Real Property for Wildlife, or other Purposes (16 U.S.C. 667b).	“...for use as an inviolate sanctuary, or for any other management purpose, for migratory birds” (Migratory Bird Conservation Act, 16 U.S.C. § 715d)); “...for the development, advancement, management, conservation, and protection of fish and wildlife resources...” (Fish and Wildlife Act of 1956, 16 U.S.C. 742f(a)(4)); and with “... particular value in

Refuge	Establishing Authorities	Refuge Purposes
		carrying out the national migratory bird management program” (16 U.S.C. 667b).
Presquile NWR	...was established in 1953 under authority of the Migratory Bird Conservation Act and Refuge Recreation Act (16 U.S.C. § 460k-1).	“for use as an inviolate sanctuary, or for any other management purpose, for migratory birds” (Migratory Bird Conservation Act, 16 U.S.C. § 715d). “... suitable for – (1) incidental fish and wildlife-oriented recreational development, (2) the protection of natural resources, (3) the conservation of endangered species or threatened species ...” (Refuge Recreation Act, 16 U.S.C. § 460k-1).
Rappahannock River Valley NWR	...was established in 1996 under authority of the Fish and Wildlife Act, the Emergency Wetlands Resources Act (16 U.S.C. §3901(b), 100 Stat. 3583), the Endangered Species Act, and the Migratory Bird Conservation Act.	“...for the development, advancement, management, conservation, and protection of fish and wildlife resources...” (Fish and Wildlife Act of 1956, 16 U.S.C. 742f(a)(4)) “...the conservation of the wetlands of the Nation in order to maintain the public benefits they provide and to help fulfill international obligations...” 16 U.S.C. §3901(b), 100 Stat. 3583 (Emergency Wetlands Resources Act of 1986) “to conserve...fish or wildlife which are listed as endangered species or threatened species” 16 U.S.C. §1534 (Endangered Species

Refuge	Establishing Authorities	Refuge Purposes
		Act of 1973), and “...for use as an inviolate sanctuary, or for any other management purpose, for migratory birds....” 16 U.S.C. §715d (Migratory Bird Conservation Act).

James River National Wildlife Refuge (NWR) is located in Prince George County, Virginia, along the south bank of the Lower James River. The refuge is approximately six (6) miles east of the City of Hopewell. The refuge encompasses 4,700 acres of pine-dominated, moist hardwood and floodplain forests, freshwater marsh and shrub swamp, aquatic habitats, erosional bluffs, and non-forested upland. The refuge is within the James River watershed and the Chesapeake Bay Estuary. James River NWR was established specifically for the protection of bald eagles.

Plum Tree Island NWR is located in the City of Poquoson, York County, Virginia. The refuge is approximately seven (7) miles north of the City of Hampton. The refuge encompasses 3,502 acres of salt marsh, marine shrubland and dune, sandy beaches and mudflats, and estuarine habitats in the lower Chesapeake Bay, near the mouth of the York River. The refuge is bordered by the Poquoson River to the north, lower Chesapeake Bay to the east, Back River to the south, and an undeveloped privately owned salt marsh to the southwest. The refuge was established for use as an inviolate sanctuary, for the benefit of the U.S. Fish and Wildlife Service, for the conservation of fish and wildlife resources, and to support the migratory bird management program.

Presquile NWR is an island located in Chester, Chesterfield County, Virginia near the City of Hopewell and approximately twenty (20) miles southeast of Richmond, the state capital. The refuge encompasses 1,329 acres of tidal swamp forest, open waters, tidal freshwater marshes, grasslands, mixed mesic forest (transitional and mature), and river escarpment. The refuge is located within the James River watershed and Chesapeake Bay Estuary. The refuge serves as an important stopover site for migratory birds, crucial in the Lower James River Important Bird Area. The refuge was established for use as an inviolate sanctuary for migratory birds.

Rappahannock River Valley NWR contains multiple units along the Rappahannock

River, from the area around Port Royal, Virginia to southeast of Warsaw, Virginia. The refuge encompasses 12,181 acres of agricultural lands, early successional habitat, mixed forests, tidal marsh, wooded swamp, open water and coastal plains. The refuge is located within the Chesapeake Bay Estuary. The refuge was established to conserve and protect fish and wildlife resources, including endangered and threatened species and wetlands.

The four (4) refuges of the Complex are managed as part of the Refuge System. The mission of the Refuge System, as outlined by NWRSA and amended by the Refuge System Improvement Act (16 U.S.C. 668dd et seq.), 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.”

The NWRSA mandates the Secretary of the Interior in administering the Refuge System to (16 U.S.C. 668dd(a)(4):

- Provide for the conservation of fish, wildlife, and plants, and their habitats within the Refuge System;
- Ensure that the biological integrity, diversity, and environmental health of the Refuge System are maintained for the benefit of present and future generations of Americans;
- Ensure that the mission of the Refuge System described at 16 U.S.C. 668dd(a)(2) and the purposes of each refuge are carried out;
- Ensure effective coordination, interaction, and cooperation with owners of land adjoining refuges and the fish and wildlife agency of the states in which the units of the Refuge System are located;
- Assist in the maintenance of adequate water quantity and water quality to fulfill the mission of the Refuge System and the purposes of each refuge;
- Recognize compatible wildlife-dependent recreational uses as the priority general public uses of the Refuge System through which the American public can develop an appreciation for fish and wildlife;
- Ensure that opportunities are provided within the Refuge System for compatible wildlife-dependent recreational uses; and

- Monitor the status and trends of fish, wildlife, and plants in each refuge.

Therefore, it is a priority of the FWS to provide for wildlife-dependent recreation opportunities, including hunting and fishing, when those opportunities are compatible with the purposes for which the refuge was established and the mission of the Refuge System.

In 2021 the Eastern Virginia Rivers NWR Complex expanded hunting and fishing opportunities on all four refuges. Through this plan, the FWS proposes to expand hunting opportunities at Eastern Virginia Rivers NWR Complex further to better align with state hunting regulations. In summary, we propose the following changes to the existing hunt plan:

Species changes: James River NWR, Presquile NWR and Rappahannock River Valley NWR will be opening to additional upland game species (red fox, bobcat, raccoon, striped skunk, groundhog, opossum). Presquile will also be opening to gray squirrel and rabbit. New species (red fox, bobcat, raccoon, striped skunk, squirrel, rabbit, groundhog, and opossum) can be hunted concurrently with current open hunt days when seasons overlap, unless otherwise specified.

Huntible acreage changes: There will be a slight decrease of available hunt acres at James River NWR (160 acres) due to safety concerns with neighboring property. Rappahannock River Valley NWR will increase turkey and coyote hunting acres by 675 acres. Rappahannock will also add 85 acres to the total huntible acreage. Presquile and Plum Tree Island Refuges will have no change to their hunt acreage as all possible acreage is already opened.

Method of take changes: The 2021 Hunting and Fishing Plan implemented a lead-free ammunition requirement for small game (squirrel and rabbit), coyote and turkey, lead-free tackle requirement, and lead phase out for white-tailed deer scheduled to become effective September 1, 2026. The FWS proposes to withdraw the lead-free requirements detailed in the plan, in response to current lack of reasonable and prudent alternatives, and recent directives aimed at reducing regulations (Executive Order 14192, Unleashing Prosperity Through Deregulation, dated January 31, 2025; Secretarial Order (S.O.) 3421, Achieving Prosperity through Deregulation, dated February 8, 2025; and S. O. 3447: Expanding Hunting and Fishing Access, Removing Unnecessary Barriers, and Ensuring Consistency Across the Department of Interior Lands and Waters, dated January 7, 2026). The historical, federal nation-wide non-toxic shot requirement for ducks, geese, brant, swans, and coots from 1991 remains in effect (50 CFR 20.21(j)). Also, historic lead-free

tackle restrictions in the Wilna Pond and Laurel Grove Pond remain in effect (50 CFR 32.65).

Date Changes: The number of archery hunt days will be expanded on Thomas, Kennedy and Port Royal Tracts on Rappahannock River Valley NWR to better align with state dates. Youth and Apprentice weekend will be open at Rappahannock River Valley NWR for the spring turkey hunt. The refuge will follow the dates set each year by the state. Three half-day public spring turkey hunts will now be open on additional units of Rappahannock River Valley NWR. Deer hunting days on James River NWR will be increased from only Saturdays to include Sundays during the refuge seasons. Small game hunting (rabbit, squirrel and groundhog) on James River NWR will be expanded to include Saturdays and Sundays from the second weekend in January to February 28th for the general public in select zone.

Additionally, as funding appropriates allow, we would improve or establish the infrastructure necessary to carry out the updated hunting and fishing program on Eastern Virginia Rivers NWR Complex:

Rappahannock River Valley NWR. New gates at Franklin, Fones Cliff, and the right-of-way road at Laurel Grove; new parking areas at Kennedy, Toby's Point, and Fones Cliff; upgrading of the Wilna Lodge deck to accommodate Americans with Disabilities Act (ADA)-hunters; road upgrades/repairs at Cat Point Creek, Fones Cliff, and Wright which support hunting and other wildlife dependent recreation. Up to six new permanent waterfowl/fishing blinds at Island Farm.

Plum Tree Island NWR. Up to three new permanent waterfowl/fishing blinds.

II. Statement of Objectives

Objectives of a multi-species hunting and fishing program at the Eastern Virginia Rivers NWRC are to:

- Promote enjoyment and stewardship of our Nation's natural resources by providing quality, wildlife-dependent recreational opportunities and access for hunters and anglers on the Refuge Complex;
- Provide wildlife-dependent public recreation as mandated by and according to FWS law and policy;
- Design a hunting and fishing program that is administratively efficient and manageable with existing staffing levels and that aligns with state regulations when possible;

- Design a hunting and fishing program that is in alignment with habitat management objectives; and
- Support Virginia Department of Wildlife Resources R3 efforts where appropriate and compatible.

Hunting and fishing are consistent with the individual Comprehensive Conservation Plans (CCPs) for the refuges, and the Complex's larger goals to support habitat management, wildlife-dependent recreation, and to support biological diversity and environmental health in the region.

III. Description of Hunting and Fishing Program

The four refuges (Figure 1) offer a wide range of hunting opportunities, including public hunts and specialty hunt opportunities that target groups such as youth, mobility impaired and mentor-led hunts in partnership with Virginia Department of Wildlife Resources (VADWR). VADWR has developed a strategic recruitment, retention and reactivation (R3) plan to address the problem of declining participation in hunting. One of the key strategies to recruit and retain new hunters is to increase the amount of mentored hunting opportunities.

Virginia Department of Wildlife Resources is working to recruit a roster of experienced hunters to serve as mentors to new hunters all across Virginia. In order to facilitate the most effective learning experiences and increase the scalability, VADWR needs access to huntable land that can be controlled through a formalized program. The Complex offers mentor-led hunts that are not open to the general public but only through the VADWR formalized mentor hunt program. The Complex also works with VADWR and non-profits, such as Wheelin' Sportsmen, to offer accessible hunting opportunities.

Fishery resources on the complex are varied and offer outstanding angling opportunities for both fresh and brackish water species, including striped bass, flounder, red drum, croaker, white perch, largemouth bass, crappie, and several species of catfish. Fishable waterways in the complex include the James and Rappahannock Rivers, tidal creeks along the Chesapeake Bay, several fresh and brackish creeks, and two ponds. Many of the opportunities are from fishing piers and/or small boats. The complex includes several non-motorized and electric-powered vessel launches. Bank fishing is generally prohibited with some exceptions due to steep banks and sensitive riparian vegetation.

A. Areas to be Opened to Hunting and Fishing

At any given period, some of the areas open for hunting and fishing in the complex, as described below, may be closed due to management activities, the status of infrastructure, or safety concerns. Hunters and anglers should follow posted signs, check for updates on the respective refuge websites, and review annual hunt literature.

James River NWR

Currently a total of 4,142 acres is open to hunting. Due to safety concerns with neighboring properties, this plan will close 160 acres. Hunting would be available on a total of 3,982 acres for white-tailed deer, turkey, coyote, small game, and furbearers. The refuge encompasses pine-dominated, moist hardwood and floodplain forests, freshwater marsh and shrub swamp, aquatic habitats, erosional bluffs, and non-forested upland. To maximize safety for visitors and neighbors, hunting in the designated public use area and in designated safety zones will not be allowed at James River NWR (Figure 2).

The hunt area will be further divided into zones, roughly 200 to 300 acres each, for mentor-led small game hunting (3,982 acres, within 10 zones; rabbit, groundhog and squirrel), general public winter small game hunting (300 acres, limited to one zone) and for the spring turkey hunt (2,393 acres, limited to 6 zones).

A limited waterfowl hunt is offered. One waterfowl blind is installed on Powell Creek for VADWR mentored waterfowl hunting opportunities.

The public use area at James River includes an ADA-accessible dock and canoe/kayak launch along Powell Creek. Fishing is only allowed from this dock (Figure 2) but offers access to fish the waters from the dock in non-motorized craft. Powell Creek is tidally influenced and fluctuates several feet. The river in this area is slightly brackish with salinities ranging from a high of about 0.6 parts per thousand (ppt) to a low of less than 0.1 ppt.

Plum Tree Island NWR

Plum Tree Island NWR is a salt marsh island located in the Lower Chesapeake Bay. There are no roads, trails, electricity, potable water, or modern facilities on the refuge. The bulk of the refuge is land formerly used as a bombing range by the Department of Defense. The only portion of Plum Tree Island that was not formerly used as a bombing range is Cow Island. The refuge's waterfowl hunt will occur on Cow Island at a maximum of three blind locations (Figure 3).

Fishing from vessels regularly occurs in the waters surrounding Plum Tree Island

NWR. Fishing at Plum Tree Island NWR is also allowed from two structures (Blind 1 and 3; Figure 3) located near the shores of Cow Island. These structures will be shared seasonally between user groups, with allowances for waterfowl hunting during select days of the fall and winter months, and fishing during spring and summer months.

Presquile NWR

Hunting occurs on approximately 1,309 acres of the 1,329-acre island refuge, with access provided on the 3.5-mile trail network and stationery/temporary docking locations (Figure 4). A no hunting zone of approximately 20 acres has been established around the refuge's visitor-use facilities. Approximately 380 acres of mesic and successional forests and grassland habitat are open to hunting. The remaining 929 acres open to hunting include marsh and swamp habitat. Presquile is only accessible by watercraft and thus offers a unique type of hunting experience, including reasonable harvest opportunities, uncrowded conditions, fewer conflicts among hunters, relatively undisturbed wildlife, and limited interference from or dependence on mechanized aspects of the sport.

The refuge is located on the Lower James River, which is tidally influenced with an amplitude of 3 feet and slightly brackish. Presquile NWR has a great amount of tidal swamp forest, nearly fully bisected by two large tidal creeks, Deep Creek and Little Creek, and numerous coves that provide for excellent fishing opportunities. Navigable waters, as defined by VADWR, are largely managed by the state; however, certain bottoms along the creeks and river are owned and managed by the FWS. Fishing at Presquile NWR is only allowed in the creeks and river from motorized boats, canoes, kayaks, or similar vessels. No land-based fishing is allowed.

Rappahannock River Valley NWR

Rappahannock River Valley NWR is comprised of 25 units spread over five counties, totaling 12,181 acres (Figure 5). Refuge-held conservation easements with no public access account for 7 units and ~4,000 acres. This plan proposes to open 85 acres in additional huntable acreage to include the Wellford tract. All but three of the smaller refuge fee-units would be open to hunting. The predominant habitats are loblolly and hardwood mixed forest, early successional shrub grasslands, and brackish tidal marsh. Other habitats include wet hardwood forest, wooded swamps, open water and wet meadow.

The Hutchinson, Wilna, Laurel Grove, Fones Cliff, Wellford, Port Royal, and Cat Point Creek units are open to hunting in addition to existing wildlife-dependent recreational activities. The Mothershead, Franklin, Thomas, Wright, Toby's Point, Kennedy, Tayloe and Island Farm units are only open to hunting. Kennedy can only be opened if parking access were ever to become available. Island Farm will only be

opened once blinds are installed. Table 2 provides specific information on the acreage and species that are open for each unit. Fishing from shore or pier is permitted in designated areas on the Wilna, Laurel Grove, Hutchinson, Cat Point Creek and Toby's Point units.

Table 2. Rappahannock River NWR Hunting Opportunities Summary

Unit Name	Unit Acreage	Species
Wilna	975	White-tailed deer, turkey, coyote, and bobcat. (grey squirrel, rabbit, groundhog on Wright only)
Wright	847	
Hutchinson	724	
Laurel Grove	1,090	
Fones Cliffs	252	
Toby's Point	235	White-tailed deer, fall and spring turkey, coyote, bobcat, and mentored-only grey squirrel, rabbit, groundhog, and waterfowl
Tayloe	1,112	
Mothershead	227	White-tailed deer, turkey, coyote, bobcat, red fox, striped skunk, raccoon, opossum, grey squirrel, rabbit, and groundhog.
Franklin	107	
Port Royal	123	White-tailed deer, turkey, coyote, and bobcat
Thomas	239	
Wellford	85	
Kennedy ¹	178	
Cat Point Creek	243	White-tailed deer, turkey, coyote, bobcat and waterfowl
Island Farm ¹	829	Waterfowl

¹ Will be opened to hunting when infrastructure is developed.

B. Species to be Taken, Hunting/Fishing Periods, Hunting/Fishing Access

Access and Shooting Hours

Unless otherwise noted in refuge hunt literature, permitted hunters at Rappahannock, James River, and Plum Tree Island NWRs may enter the refuge no more than one hour prior to start of legal shooting time until one hour after the end of legal shooting time. Due to the difficulty of access, Presquile NWR hunters may enter up to two hours before the start and leave up to two hours after shooting hours end. Shooting hours for all species and all seasons are a half hour before

sunrise and a half hour after sunset. Shooting hours may differ from VADWR regulations for some species (e.g. raccoons, coyote), since night hunting is not permitted on the refuge. Exceptions to the standard refuge shooting hours may occur during specialty hunts (e.g. mentor, ADA, youth) and spring turkey season whose shooting hours will be in accordance with VADWR regulations for the respective species.

James River NWR

The refuge allows hunting of white-tailed deer, coyote, turkey (both spring and fall), bobcat, red fox, raccoon, striped skunk, opossum, squirrel, groundhog, rabbit, and waterfowl within the VADWR designated dates and seasons through public and mentor-led hunts. Deer hunting opportunities are offered for the public on all Saturdays and Sundays of the VADWR archery, muzzleloader, and firearm seasons. Coyote, turkey, bobcat, red fox, raccoon, groundhog, striped skunk and opossum may also be hunted during the white-tailed deer hunt weekends where VADWR seasons overlap. Rabbit and squirrel hunting associated with the mentor hunt will have designated zones open on Saturdays and Sundays from the second weekend in January through Feb 28th. A spring quota hunt will be offered for bearded turkey on select days during the first segment of the spring season in the designated zones. The bearded turkey hunt is conducted early in the season to avoid impacts to migrating birds and refuge management activities. Mentor-led hunts, coordinated by VADWR, will be allowed during periods outside of the designated public hunt days, in accordance with state bag limits and seasons between October 1 and February 28th for white-tailed deer, turkey, coyote, bobcat, red fox, raccoon, striped skunk, opossum, rabbit, groundhog, squirrel, and waterfowl. In addition to the general public and mentor-led hunts, the refuge will also hold two youth/apprentice weekend hunts. One will be in the spring for turkey and the second in fall for deer on dates designated by VADWR.

Freshwater fishing would be permitted in accordance with state regulations from the ADA-accessible dock located within the public use area. Various species of bass, perch, shiners, shad, sunfish, and catfish are common within the portion of the James River watershed that includes the refuge. The refuge has also been identified as suitable spawning and nursing sites for bridge shiner, alewife, American shad, blueback herring, gizzard shad, hickory shad, and striped bass.

Plum Tree Island NWR

Only hunting for migratory game birds (waterfowl) would be permitted on Cow Island Unit of Plum Tree Island. This would include duck, coot, merganser, brant, dark goose, and light goose. The season will occur during the second and third segments of state-defined seasons. Bag limits for waterfowl will coincide with the appropriate state regulations. The use of retrieving dogs for waterfowl hunting is

encouraged; however, dogs must be under the hunter's control at all times with no more than two dogs per blind site. Non-toxic shot is required for hunting waterfowl under both Virginia regulations and federal hunting regulations.

Depending on the time of year and chosen fishing location (i.e., surf, near shore, or reef) numerous species of fish can be caught in waters surrounding Plum Tree Island NWR. Species include flounder, bluefish, speckled trout, gray trout, red drum, Spanish mackerel, striped bass, kingfish, croaker, spot, and pompano striped bass, bluefish, bluefin tuna, Atlantic Bonita, and little tunny. Saltwater fishing would be permitted in accordance with state regulations from the designated waterfowl blinds 1 and 3 during spring and summer. Anglers must adhere to refuge-specific hours of operation of sunrise to sunset. Take of reptiles, amphibians, or other species for bait or any purpose is unauthorized without a specific wildlife refuge permit.

Presquile NWR

The refuge would permit hunting of white-tailed deer, coyote, bobcat, red fox, rabbit, squirrel, groundhog, striped skunk, opossum, and raccoon hunting during state designated dates and seasons. White-tailed deer hunting will occur on a one-day archery hunt and a three-day shotgun deer hunt in accordance with state regulations. A maximum of 136 hunters (34 hunters per day) may participate in the archery and shotgun deer quota hunt, which is administered by a third-party contractor. Each hunting permit applicant is charged an application and permit fee (See Hunter and Angler Permit Requirements Section). Coyote, turkey, red fox, rabbit, squirrel, groundhog, striped skunk, opossum and raccoon may also be taken during the three-day shotgun deer hunt and the one-day archery deer hunt.

In addition to the public hunts and based on interest, a state-certified mentor-led deer hunt may occur one day during the fall shotgun season. This hunt will have hunting participants limited to 10 slots (for mentor and mentee) and access coordination with refuge staff.

Freshwater fishing would be permitted from watercraft only in accordance with state regulations on Deep Creek, Little Creek, and mainstem James River waters along the southwestern boundary. These creeks are tributaries to the James River, which surrounds Presquile NWR. Bank fishing is prohibited. Fifty-nine species of fish are listed for Chesterfield County. Of these, 20 are considered games species, including the white perch, blue catfish, striped bass, largemouth bass, bluegill, pumpkinseed sunfish and American eel. In addition, a small viable sturgeon population occurs in the lower James River. Atlantic sturgeon was listed as endangered in February 2012; thus, fishing for Atlantic sturgeon is prohibited.

Rappahannock River Valley NWR

A summary of the hunt opportunities is provided in Table 3 below. Hunting seasons and methods of take vary from VADWR regulations across units due to unit size, amount of public visitation for other uses and city or county regulations and will be posted in the annual hunt brochure. On all refuge units there will be no hunting on Sunday allowed. A Sunday break in hunting allows for other public uses to utilize the units on a weekend day as well as allowing ample scouting days on each unit for hunters. During all firearm hunts, public use units will be closed to all other uses.

On those units where other public uses are permitted (Hutchinson, Wilna, Fones Cliff, Wellford, Port Royal, and Cat Point Creek), small game hunting will not be allowed. This would prevent interference with other wildlife-dependent activities.

Quota spring gobbler shotgun hunts will be allowed early in the season on many of our refuge units (Table 3). This would allow us to avoid impacts to migrating birds and refuge management activities (i.e., prescribed fire, grassland mowing, etc.).

Waterfowl, including duck, merganser, coot, brant, light goose, and dark goose, hunting would follow state waterfowl season dates and federal regulations on the Island Farm unit. On Cat Point Creek unit, waterfowl hunting would be allowed only during mid-season (late November to early December) to avoid impacts to other public use activities including fishing, canoeing and kayaking. Hunting will occur at both units a maximum of 3 days a week to allow waterfowl time to rest and feed.

Rappahannock River Valley NWR was first opened to recreational fishing in 2003 and Wilna Pond was the only site suitable for fishing. Since then, additional land acquisitions have resulted in three more areas that are suitable to support public recreational fishing including Laurel Grove Pond, Mt. Landing Creek (Hutchinson Unit), and the Rappahannock River from the Toby's Point Unit (<https://www.fws.gov/refuge/rappahannock-river-valley>).

Fishing opportunities on the Wilna and Laurel Grove Units are similar. Wilna Pond is approximately 30 acres in size and averages about six feet in depth. Fishing would be allowed from the fishing pier and levee shoreline. The Laurel Grove Pond is located in the southwestern corner of the Laurel Grove Unit. It is approximately 10 acres and includes numerous small coves. Water depths of open areas and even those near the shoreline have been measured at depths greater than 6 feet. We will allow fishing from the ponds and shoreline of the ponds. Both units will also allow fishing from hand-launched non-motorized or electric boats, canoes, kayaks or similar.

The Hutchinson, Toby's Point, and Cat Point Creek units provide fishing opportunities on creeks of the Rappahannock River. The Hutchinson Unit provides a fishing opportunity in Mount Landing Creek and is confined to pier use only. Toby's Point has bank access along approximately 100 feet of Rappahannock River shoreline adjacent to the county parking lot. A boat ramp provides river access and is managed by King George County. Cat Point Creek Unit has an ADA-accessible fishing pier providing access to Cat Point Creek, known for trophy gar and catfishing opportunities. Fishing will be confined to pier use only.

A 1993 report by the Virginia Fisheries Program Leader stated that the Rappahannock River fisheries resources are very diverse with at least 62 fish species identified (Spells, 1993). A complete list of these species is found in the Comprehensive Conservation Plan (2009). Fish present in Wilna and Laurel Grove ponds include largemouth bass, bluegill, flier, yellow bullhead, and American eel. The most likely species to be caught from the Hutchinson, Toby's Point and Cat Point Creek units are channel and blue catfish, croaker, and white and yellow perch.

Table 3. Rappahannock River Valley Hunting Seasons

Unit	Hunting
Wilna Wright Hutchinson Kennedy ¹ Laurel Grove Fones Cliffs Taylor Toby's Point	Deer: <i>Archery</i> – October <i>Muzzleloader</i> – designated days first 2 weeks November <i>Shotgun</i> – 2-day hunts, designated days (10) mid-November through mid-December
	Turkey ² : <i>Fall archery (includes crossbow)</i> – October <i>Fall firearms</i> : allowed during deer hunts <i>Spring gobbler (shotgun)</i> : designated half-days early season and youth/apprentice weekend (Saturday only)
	Coyote, bobcat, opossum, raccoon, groundhog, red fox, and striped skunk – same as deer
	Squirrel and rabbit – mid-December through February 28 (Wright only)
Taylor Mentor Hunt	State seasons when not in conflict with public hunt and/or habitat management activities
Mothershead Franklin	Deer: <i>Archery</i> – October through mid-December

Unit	Hunting
	Turkey ² : <i>Fall archery (includes crossbow)</i> – October through mid-December <i>Spring gobbler (shotgun)</i> : designated days (3) ½ days early season and youth/apprentice weekend (Saturday only) Coyote – same as deer Bobcat – same as deer Squirrel, rabbit, groundhog, opossum, raccoon, red fox and striped skunk (mid-December through February 28)
Port Royal	Deer, turkey ² , coyote, and bobcat: <i>Archery</i> – October
Thomas Wellford	Deer, turkey ² , coyote, and bobcat: <i>Archery</i> – October
Cat Point Creek	Deer, turkey ² , coyote, and bobcat: <i>Archery</i> – October through January 5 th . Duck, coot, merganser, brant, light and dark goose: mid-season only
Island Farm	Duck, coot, merganser, brant, light and dark goose: full season

¹ Will be opened to hunting when parking access is developed.

² Turkey hunting will only be allowed on days designated by state regulations.

Specialty/Mentor-Led Hunts

All refuges may be open to special hunts. The goal of the special hunts is to provide quality recreational hunting experiences that may be limited or not available for underserved hunting populations within the structure of general public hunting. The populations targeted for these special hunts are mentor-led hunters, youth hunters, hunters with disabilities, non-male hunters, veterans, and senior hunters.

Virginia Department of Wildlife Resources has a mentor program that connects mentors, vetted and certified by VADWR, with new hunters. VADWR Certified Mentors are all active Virginia Hunter Education Instructors or VADWR volunteers who have valuable hunting knowledge and expertise. The state shared a need for additional areas to support the mentor-led hunts. At James River NWR, mentor-led hunts will be allowed during periods outside of the designated general public hunt days, in accordance with state bag limits and seasons for big game, furbearers, waterfowl and small game. Presquile NWR will allow a designated date for the mentor-led hunt outside of the public hunting seasons. Rappahannock River Valley NWR allows mentor-led hunts on the Tayloe Unit in coordination with the state

outside of general public hunting days.

Our first mobility-limited hunt on Rappahannock River Valley NWR was in 2019, after a year and a half of discussions with the Virginia chapter of the National Wild Turkey Federation's Wheelin' Sportsmen. Since that time, we have had at least one day set aside during muzzleloader season at either the Wilna or Tayloe Units for this event. Planning and coordination is done thru Wheelin' Sportsmen. This ensures both a safe hunt, and one that meets the needs of the participants. Mobility limited hunters are accompanied by another adult (usually a friend or relative) while afield. Refuge staff are aware of the locations of each of the hunter and these locations are determined and prepared ahead of time. The majority of the effort is done by refuge volunteers and our friends group. The state DWR usually sends one or two officers to be present and support the effort. Our friends group typically prepares a lunch for the hunters and those accompanying them.

C. Hunter Permit Requirements

Hunters will be required to have a state hunting license, as well as the refuge-specific Permit. See "Hunter Permit Application and/or Registration Procedures" below.

D. Consultation and Coordination with the State

National Wildlife Refuges, including Eastern Virginia Rivers NWR Complex, conduct their hunting program within the framework of state and federal regulations. The refuge has developed this hunting and fishing plan in coordination with the Virginia Department of Wildlife Resources (VDWR). In developing this plan, the refuge reviewed the operations and regulations for neighboring State Wildlife Management Areas and the Virginia Hunting, Trapping, Migratory Bird and Fishing Regulations Digests to find consistency where possible. In mid-September 2025, FWS regional leadership reached out to the Virginia State Director to see if there were any particular requests or changes, they would like to see at Eastern Virginia Rivers NWR Complex. In mid-October 2025, the state responded and we consulted with Virginia state biologists through spring and summer 2026 on the state's priorities which included aligning with state regulations as much as possible but especially focused on increasing small game hunting, mentor and youth hunting opportunities, and increasing scouting days. In this plan, we have paid special attention to do all of these where possible.

E. Law Enforcement

Enforcement of refuge violations associated with management of a national wildlife

refuge is the responsibility of commissioned Federal Law Enforcement Officers. The complex no longer has a full-time officer but is currently provided with support by the South Coastal Law Enforcement Zone for Rappahannock River Valley NWR, and by Great Dismal Swamp NWR for James River, Presquile and Plum Tree Island NWRs. Other Fish and Wildlife Officers (FWO), special agents, state conservation officers, and the local Sheriff's Department occasionally assist the Complex. When resources and time allow, law enforcement details are organized. Attention from FWOs has been limited due to the small numbers of officers and large number of disjointed properties. Coordination with officers is on-going to improve high priority involvement that supports wildlife refuges. Additionally, VADWR game wardens are housed on Rappahannock River Valley NWR property and check hunters on refuge lands.

The following methods are used to control and enforce hunting and fishing regulations:

- Refuge boundaries are posted to greatest extent possible.
- Maps of hunt/fishing areas are provided to the public via refuge websites, brochures and on the third-party contractor's website where prospective hunters go to purchase their permits (if required). Refuge kiosks, where available, will identify hunting as a use that occurs on the refuge and refer the public to the appropriate website.
- Information on regulations is available at the Complex Headquarters/Administrative Office, websites and social media accounts and when permits are issued.
- Refuge staff coordinate with VADWR Officers and other law enforcement agencies. Complex staff meet with local law enforcement agencies to develop good working relationships and coordinate appropriate strategies.
- FWO's will randomly check hunters, and anglers, for compliance with federal and state laws, as well as refuge-specific regulations pertinent to hunting and fishing, including compatibility stipulations.

E. Funding and Staffing Requirements

Annual hunt administration costs for the varied hunting and fishing opportunities at the four refuges within the complex include salary, equipment, materials, staff time and law enforcement support and brochures/publications, and totals

approximately \$25,800. Not reflected in the table below is initial construction/establishment of new parking areas for hunting and fishing. We estimate these one-time costs to be \$2,000. Additional costs not reflected in the table include: \$500 for hunt and fishing signs at James River NWR, as well as the \$10,000 for piling work on waterfowl blinds at Plum Tree Island NWR.

Table 4. Funding and Staffing Requirements

Identifier	Cost
Staff (Maintenance Workers, Biologist, and Refuge Managers) Hunt Program	\$10,000
Staff (Maintenance Workers, Biologist, and Refuge Managers) Fish Program	\$3,000
Maintain roads, parking lots, trails*	\$3,300
News releases, fact sheets, reports for Hunt & Fish Program	\$1,000
Maintain hunting/Fishing signs	\$1,800
Lead outreach and educational programs	\$1,200
Law Enforcement**	\$5,500
Total Annual Cost	\$25,800
<i>*Refuge trails and roads are maintained for a variety of activities. Costs shown are a percentage of total costs for trail/road maintenance on the refuge and are reflective of the percentage of trail/road use for hunting and fishing. Volunteers account for some maintenance hours and help to reduce overall cost of the program.</i>	
<i>**Detailed Federal Wildlife Officers since the Complex does not have a Law Enforcement Officer.</i>	

Refuge complex management capability funds, refuge recreational fees, and salary are applied to conduct each of the hunts. Funding specifically for hunting or fishing has not been allocated, although some funds are available through hunter fees/recreation program funds. If our required administrative involvement increases, costs will be reevaluated to ensure a hunt compatible with refuge objectives and purposes can be conducted. It is anticipated that funding would be sufficient to continue the hunting programs into the future.

IV. Conduct of the Hunting and Fishing Program

To ensure compatibility with refuge purposes and the mission of the Refuge System, hunting and fishing are conducted in accordance with state and federal regulations and supplemented by refuge-specific regulations (50 CFR 32.65). However, the refuge manager may, upon annual review of the hunting and fishing program, impose further restrictions on hunting or fishing, recommend the refuge

be closed to activities, or further liberalize hunting and fishing regulations up to the limit of state regulations. The refuge will restrict activity if it becomes inconsistent with other priority refuge programs or endangers refuge resources or public safety.

F. Hunter/Fishing Permit Application, Selection, and/or Registration Procedures

Permit applications or the use of a check-in / check-out system is utilized for all general hunts at James River, Rappahannock River Valley, and Presquile NWR. Permitted quota hunts are determined annually and announced in the hunt brochure. Mentor-led hunts and state youth/apprentice hunts are considered to be specialty hunts, but access will be coordinated with the Refuge and state, and a permit will not be required.

Quota hunt permit administration will be conducted by a third-party contractor, and they will charge an application fee. Application fees will be fully retained by the contractor, not by the refuge. Review of applications and selections are fully conducted by the third-party contractor. The designated contractor's website is the portal for hunters to apply for a permit. This site collects hunter information, the required fees, and issues permits. These services provide hunters with the ability to apply, pay for, and receive hunting permits in advance of the hunting dates. All fees must be paid prior to the issuance of a permit. The application process that hunters go through at third-party contractors will include the "Hunt Application/Permit" (FWS Form 3-2439).

The refuge has removed barriers including some permit requirements and offered hunts for those species the state identified to support new hunter recruitment such as small game hunting. Previous refuge permit data shows that many hunters travel from urban areas (i.e., Richmond, Fredericksburg, Washington, DC) well over 60 miles away to hunt at the complex. We feel without a guaranteed location to hunt they may not continue to travel to the refuge to hunt.

The contractor electronically contacts the applicants to inform them of their selection status. Winning selectees are then charged a permit fee (if applicable) and forwarded information to access fulfillment documentation. The fulfillment documents include the details of the specific hunt (i.e., rules, regulations, dates of participation, maps, parking passes, etc.). Rules, regulations, and conditions of the hunt will be posted in the months prior to the hunt season on the refuge website, refuge kiosks, and other publications. For hunts that require a permit, hunters must have their permit(s) on their person. In addition to the permit that spells out the season, date, and location, hunters are given a parking permit that they must display on the dashboard of their vehicle. For hunts not requiring refuge hunt

permit, hunters must produce proof of valid electronic reservation as received from third party vendor.

State fishing licenses are required for all angling activities at the refuges. No preselection or special registrations are required. However, as outlined in the following sections, certain restrictions apply depending on the particular refuge.

James River NWR

At this time, no refuge hunting permit will be required during the Saturday and Sunday general public hunts, reservations are required through a third-party vendor (currently RecAccess) and obtained in advance. The carrying capacity of the refuge for number of participating hunters is limited per day. Once daily registration thresholds are met, no additional hunters are allowed to participate for the day. By registering, the hunter confirms they understand the conditions of the hunt. A similar process will be in place for the two Youth/Apprentice weekend.

For all but the spring turkey quota hunt, no refuge permit is required at this time but certain conditions apply (i.e., registration, or coordination with FWS/VADWR). The spring turkey quota hunt requires application through a third-party contractor. Application information is found at the refuge's website, kiosks, and in press releases.

Plum Tree Island NWR

No permit applications or permit fees are required for the hunt at Plum Tree Island. Hunts will occur from the refuge's three designated stationary waterfowl blinds on the Cow Island unit. Access is gained on a first-come first-serve basis, provided state and federal licenses are valid. Hunting is allowed on second and third segment of the waterfowl season. No refuge permit is required.

Presquile NWR

The general quota hunt requires an application through a third-party contractor. Application information can be found at the refuge's website and in press releases. A permit fee is required if applicant is selected in the random lottery. The fee covers the selectee and one guest. The mentor-led hunt will not charge a permit fee, but certain conditions apply (i.e., hunter will coordinate with FWS/VADWR per instructions).

Rappahannock River Valley NWR

Permits are required for hunting certain units at Rappahannock River Valley NWR (i.e., units that coincide with areas open to the public for other wildlife-dependent

recreation). Other units of the refuge that are not normally open to the public may not require a permit but will require check-in procedures through a third-party vendor. Hunters wishing to acquire a permit must apply through the designated contractor. Hunters can acquire up to one archery, one waterfowl, one muzzleloader, one shotgun and/or one late season archery permit during a two-week, first-come first-served, time period. After this two-week period, all remaining permits are available on a first-come first-served basis, with no restrictions on how many a hunter can purchase, until all permits are sold. This process maximizes the number of individual hunters selected, while still offering additional opportunities for those willing to obtain permits during the open (non-restrictive) first-come first-serve time period. We anticipate certain new hunting opportunities (e.g., spring turkey) may have high demand, which could potentially exceed supply. New hunts in high demand may use a lottery system to ensure that all applicants have an equal chance of being selected. The selection process could be revised after the first year of such new hunts, depending on demand.

G. Refuge-Specific Hunting Regulations

To ensure compatibility with refuge purposes and the mission of the Refuge System, hunting and fishing must be conducted in accordance with state, federal, and refuge-specific regulations. The refuge will work cooperatively with VADWR to advertise hunting opportunities through the yearly hunting abstract. The refuge-specific regulations that pertain to hunting and fishing on Rappahannock River Valley, James River, Presquile, and Plum Tree Island NWRs as of the date of this plan are summarized here. These regulations may be modified as conditions change or if refuge expansion continues or occurs.

Eastern Virginia Rivers NWRC

These following regulations and procedures apply to all refuges:

- Hunters must possess on their person at all times while on refuge property: a valid Virginia hunting or fishing license, all required state and federal stamps, and a valid form of government-issued photo identification. Proof of a valid refuge hunting permit must also be presentable either in print or on mobile device (when required).
- Waterfowl hunters are required to hunt from a designated refuge blind or shoreline zone. Waterfowl hunters are prohibited from jump-shooting by foot or boat. Holders of float blind licenses, waterfowl hunter can choose to hunt from boat instead of refuge blind, but must be moored at designated refuge blind

- Waterfowl decoys must be removed at the end of each day's hunt.
- Dogs are only allowed on refuge lands/waters in association with approved waterfowl hunts and use must be consistent with VADWR regulations. Dogs may not be used in association with any other species' hunt including deer, furbearer, or small game. Dogs used for waterfowl must be under direct control at all times.
- Quota hunt awards are non-transferable (i.e., selected hunters must be present). For quota hunts that allow guests, the guest can only participate if the selectee is present.
- Hunters are required to report harvested game per VADWR harvest regulations and required to report their harvest data to the refuge, using the online check in/out system currently in place.
- Hunters must respect property lines and not cross into private lands, or areas of the refuge designated as No Hunt or Safety Zones.
- Refuge access is restricted to no more than 1 hour prior to start of legal shooting time until 1 hour after the end of legal shooting time, unless otherwise specified (e.g., Presquile NWR). No night hunting will be allowed on refuge lands.
- Hunters must make a reasonable effort to retrieve all wounded or killed game and include it in their daily bag limit. We prohibit leaving entrails or other waste within 50 feet (15.2 meters) of any road, parking area, trail, or structures on the refuge.
- Hunters are encouraged to voluntarily use non-lead ammunition when hunting on the refuge.
- We recommend that hunters using lead ammunition remove carcasses and gut piles from the refuge when they have a successful take of a hunted species.
- We prohibit organized deer drives. We define a "deer drive" as an organized or planned effort to pursue, drive, chase, or otherwise frighten or cause deer to move in the direction of any person(s) who is part of the organized or planned hunt and known to be waiting for the deer.
- The use of bait, spotlights, electronic calls, or lures made with animal parts

or fluids (e.g. urine) is prohibited.

- We prohibit the use of ATVs, UTVs, bicycles, drones (UASs), airboats, and amphibious vehicles on the refuge or any mechanized vehicle use off official refuge roads except for persons with permanent disabilities in designated areas as authorized by the refuge manager.
- We prohibit parking in front of any gate. Parked vehicles may not impede road traffic.
- We prohibit leaving recording devices (i.e. game cameras) on the refuge unattended.

James River NWR

- Stand hunting (defined as non-mobile, passive means of awaiting prey for harvest) can involve the use of portable tree stands and ground blinds that are removed at the end of each day.
- Prince George County regulation requires hunters to hunt from portable tree stands, elevated no less than 10 feet above the ground during muzzleloader deer season and when using rifle.
- Vehicles are allowed only on designated administrative roads as indicated on the refuge map (Figure 3). Hunters at James River NWR must park along designated refuge roads (not public roads) and pull-off locations. Vehicles must be parked in a manner to allow passage by other vehicles along roads and through gates. All-Terrain Vehicles (ATVs)/UTVs and trailers are prohibited.

Plum Tree Island NWR

- Scouting at Plum Tree Island via land access is prohibited. Prospective hunt participants can fully view the three designated stationary waterfowl hunt blinds from the state-managed waters.
- Only one boat/hunting party is allowed at each of the hunting locations.

Presquile NWR

- Refuge access is restricted to no more than 2 hours prior to start of legal shooting time until 2 hours after the end of legal shooting time.
- We required hunters to dock boats at designated docking locations as identified in the map (Figure 5) provided in quota hunt fulfillment

information.

Rappahannock River Valley NWR

- No Sunday Hunting.
- We prohibit the use of rifles, all handguns and airguns for hunting. During VADWR firearm seasons, the only firearm allowed for hunting on the refuge is shotguns and muzzleloaders.
- Hunters are required to still hunt and if they use blinds they must remove their tree stand(s), and/or blind(s) from the refuge each day with the following exception: hunters with a multi-day permit can leave blinds or stands up until the end of their permit period. Stands/blinds left overnight must have owner's contact information affixed to them.
- Hunters at Rappahannock River Valley NWR must park in designated parking locations as shown on refuge hunt maps.

H. Refuge-Specific Fishing Regulations

Eastern Virginia Rivers NWRC

These following regulations and procedures apply to all refuges:

- Anglers must possess on their person at all times while on refuge property a valid Virginia fishing license and a valid form of government-issued photo identification.
- Angler's must fish from state navigable waterways or in designated fishing areas only. We prohibit bank fishing unless otherwise noted on maps.
- We allow fishing only by use of one or more attended poles with hook and line attached. We prohibit all other fishing methods and means.

Presquile NWR

- Fishing within the interior creeks and along refuge boundary is only authorized from boats untethered to refuge lands.

Plum Tree Island NWR

- We allow fishing from designated blinds at the Cow Island Unit during spring and summer.

- Aside from the designated blinds, fishing within the interior creeks and along refuge boundary is only authorized from boats untethered to refuge lands. Contact with the bottoms along the south and southeast near shore is strictly prohibited due to presence of ordnance from former bombing range.
- Shoreline fishing is prohibited at Plum Tree Island NWR.

James River NWR

- We prohibit use of boats propelled by gasoline motors or mechanically operated paddle wheel from being launched from the refuge canoe launch for fishing or any other purpose.
- Fishing within Powell Creek, Flowerdew Hundred Creek, and James River along refuge boundary is authorized from boats untethered to refuge lands.

Rappahannock River Valley NWR

- Sport fishing is closed during the period when the refuge is open for firearms hunting of deer, turkey, coyote and bobcat. Sport fishing is permitted during days of archery hunts. Sport fishing is also open during small game or smaller furbearer hunting (January 5th through February 28th on selected units).
- We require catch-and-release fishing for largemouth bass in Wilna Pond and Laurel Grove Pond. Anglers may take other finfish species as governed by state regulations.
- We prohibit use of boats propelled by gasoline motors, sail, or mechanically operated paddle wheel while fishing in Wilna and Laurel Grove ponds, or when launched from any refuge ramp or water access.
- The use of lead fishing tackle is prohibited in Wilna and Laurel Grove ponds and discouraged elsewhere.

I. Relevant State Regulations

We allow hunting on the refuge in accordance with state regulations subject to certain conditions. Additionally, the refuge coordinates with the state as needed to maintain regulations and programs that are consistent with the state's management programs. Relevant refuge-specific regulations are annually listed in 50 CFR 32.65, and summarized above in Section IV, subsections B and C. In addition to CFRs and refuge rules, hunters/anglers participating in the refuge hunt/fishing opportunities should refer to the Virginia Hunting or Fishing Regulations Guide for general hours, requirements, definition of approved

method, limits, license requirements, and other important information. Information can also be found on the VADWR website and through the annual Virginia Hunting and Trapping and/or Fishing Regulation Digests. Hunters and anglers are responsible for knowing and complying with all applicable state, federal, and refuge-specific regulations.

J. Other Refuge Rules and Regulations for Hunting/Fishing

Additional rules and regulations are highlighted with the intent to ensure compliance of safe and appropriate behavior while hunting. Compliance reduces user conflicts, protects resources, and ensures that refuges may remain open to hunting and fishing.

- Flagging or markers of any kind (i.e., reflective tacks) are prohibited for marking trails or for any purpose.
- We require hunters to report accidents or injuries to the refuge office or sheriff's office within 24 hours after the incident. Hunters must report accidents resulting in serious injury to sheriff's office immediately.

V. Public Engagement

K. Outreach for Announcing and Publicizing the Hunting and Fishing Program

The Complex maintains a mailing list, for news release purposes, to local newspapers, radio stations, hunt clubs and partners' websites. Special announcements and articles may be released in conjunction with hunting seasons. Hunting opportunities at all four refuges will also be included in the Hunting and Trapping Virginia Regulations Digest. In addition, information about hunting and fishing will be available at Eastern Virginia NWRC headquarters and on refuge websites, Friends website, and relevant social media sites. Presentations may be given to interested user groups if requested.

L. Anticipated Public Reaction to the Hunting and Fishing Program

Hunting and fishing were discussed in the Comprehensive Conservation Plan (CCPs) for Rappahannock River Valley (2009), Presquile (2012) and James River (2015) and the final draft CCP for Plum Tree Island NWR (2017). A majority of the public comments at that time supported the increased hunting opportunities and hunter participation. The previous 2021 CD was released with the draft hunt plan

and EA for public review and comment from April 9 through July 6, 2021. A total of 20 unique commentors offered input to the refuge. The agency responded to those comments in the Finding of No Significant Impact.

The draft Hunting and Fishing Plan was available for public review and comment for 30 days from May 27, 2026 to June 26, 2026. The public was made aware of this comment opportunity through a press release and social media posting.

Federally recognized tribes were contacted on January 9, 2026 to comment on proposed hunting rule changes. No comments were received. Coordination with the State of Virginia (Virginia Department of Wildlife Resources) occurred in May 2026 and a response was received on June 25, 2026. A hard copy of this document was posted at the Eastern Virginia Rivers National Wildlife Refuge Complex Headquarters at 336 Wilna Road Warsaw, Virginia 22572. It was made available electronically on the refuge website: www.fws.gov/refuge/rappahannock-river-valley/about/complex.html.

A summary of public comments received as part of the 2026-2027 Hunting and Fishing Rulemaking process can be found in the Eastern Virginia Rivers NWRC specific categorical exclusion.

M. How Hunters/Anglers Will Be Informed of Relevant Rules and Regulations

General information regarding hunting and other wildlife-dependent public uses can be obtained for the four refuges that make up the Eastern Virginia Rivers NWRC at:

https://www.fws.gov/refuge/Rappahannock_River_Valley/about/complex.html or by contacting Rappahannock River Valley NWR 336 Wilna Dr., Warsaw, VA, or by calling (804) 333-1470. Dates, forms, hunting unit directions, maps, applications, and permit requirements about the hunt will be available at the websites for each refuge:

https://www.fws.gov/refuge/Rappahannock_River_Valley/
https://www.fws.gov/refuge/james_river/
<https://www.fws.gov/refuge/presquile/>
https://www.fws.gov/refuge/plum_tree_island/

VI. Figures

Figure 1. Eastern Virginia Rivers NWR Complex Map

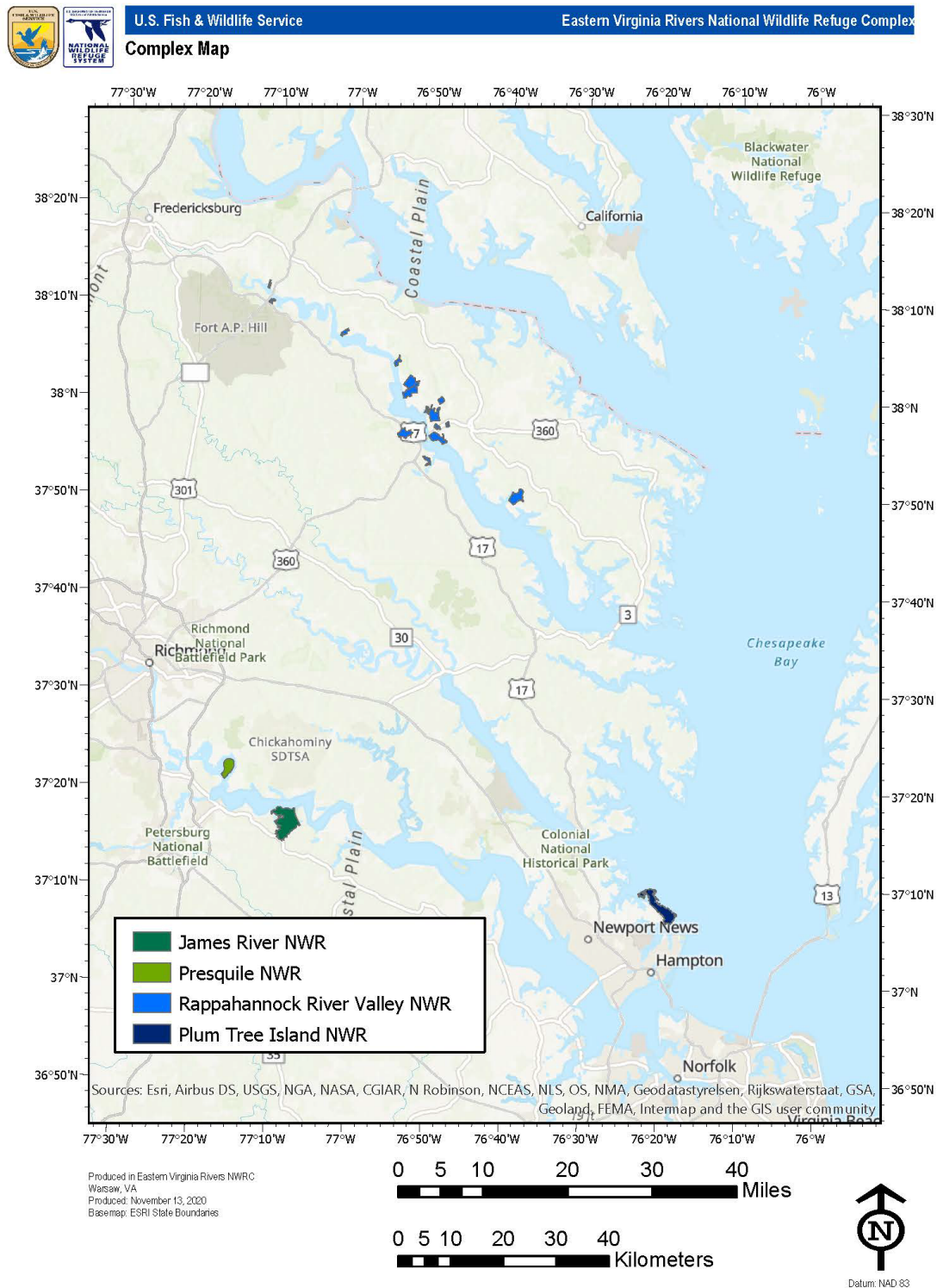


Figure 2. James River NWR Overall Hunt Map

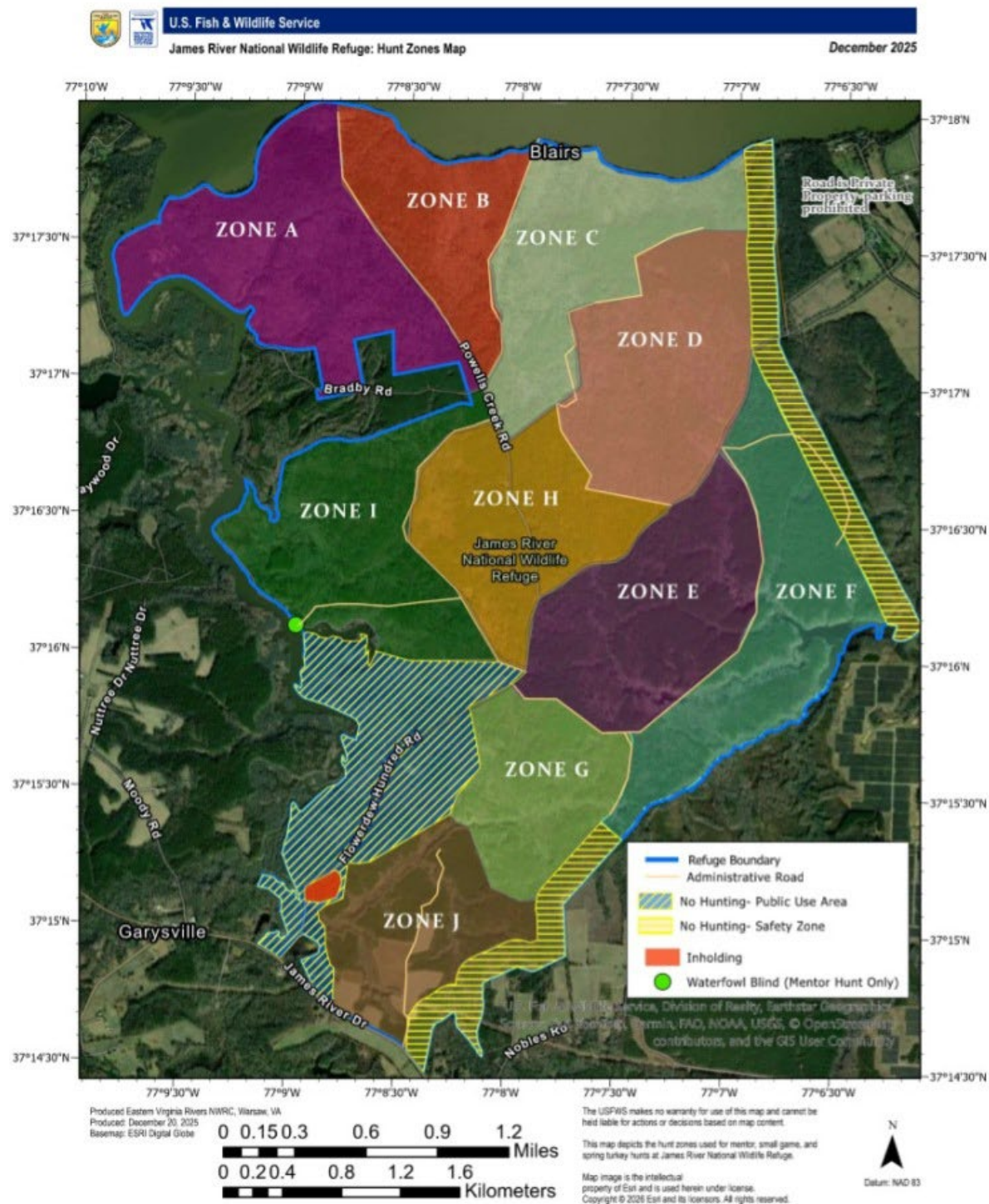


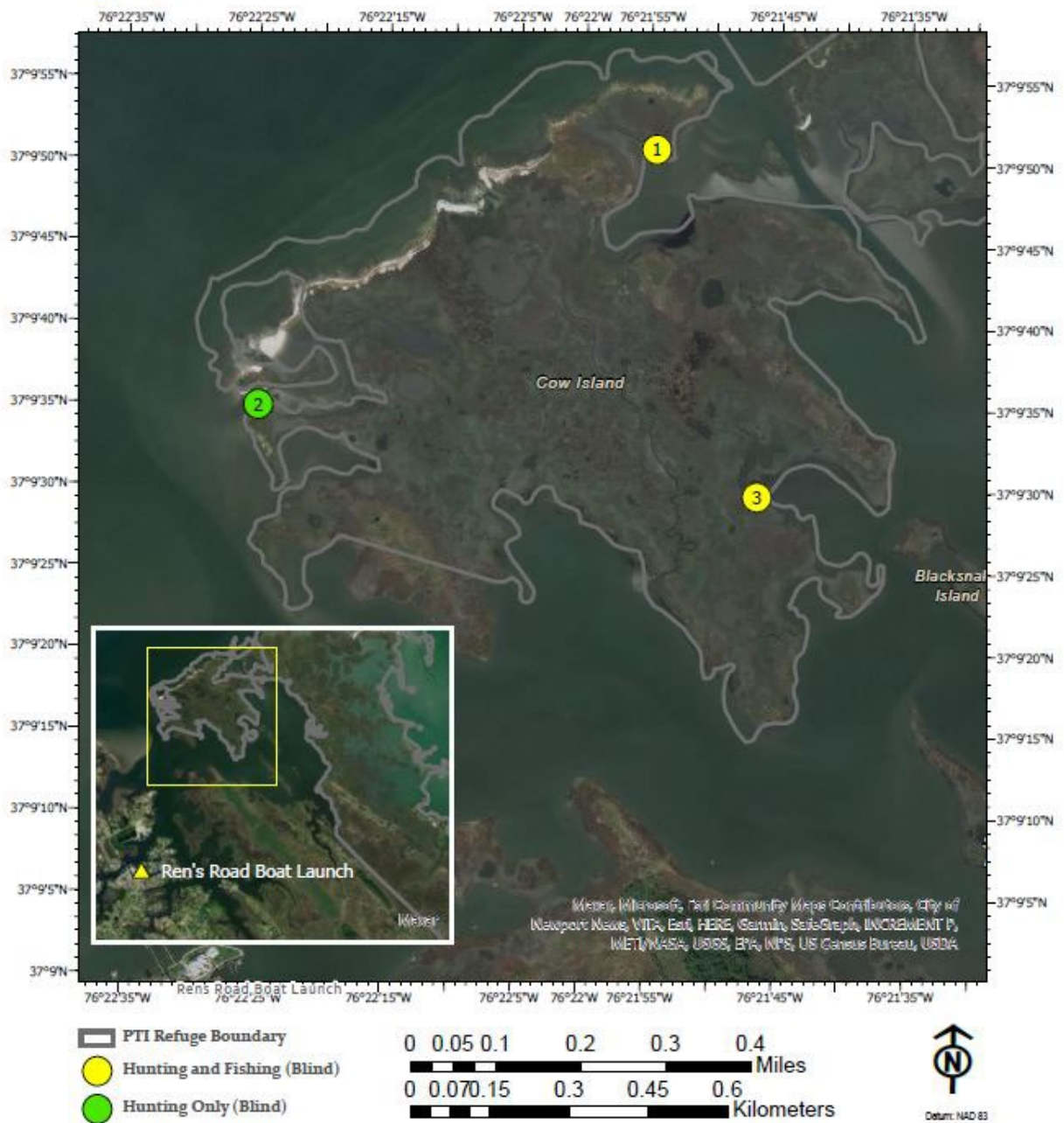
Figure 3. Plum Tree Island NWR Hunt Map



U.S. Fish & Wildlife Service

Plum Tree Island National Wildlife Refuge: Cow Island Unit 2020-2021 Quota Waterfowl Hunt Location Map (Permit Required)

August 2021



Produced in Eastern Virginia Rivers NWRC
Wareham, VA
Produced: December 10, 2020
Base map: ESRI State Boundaries

Figure 4: Presquile NWR Hunt Map

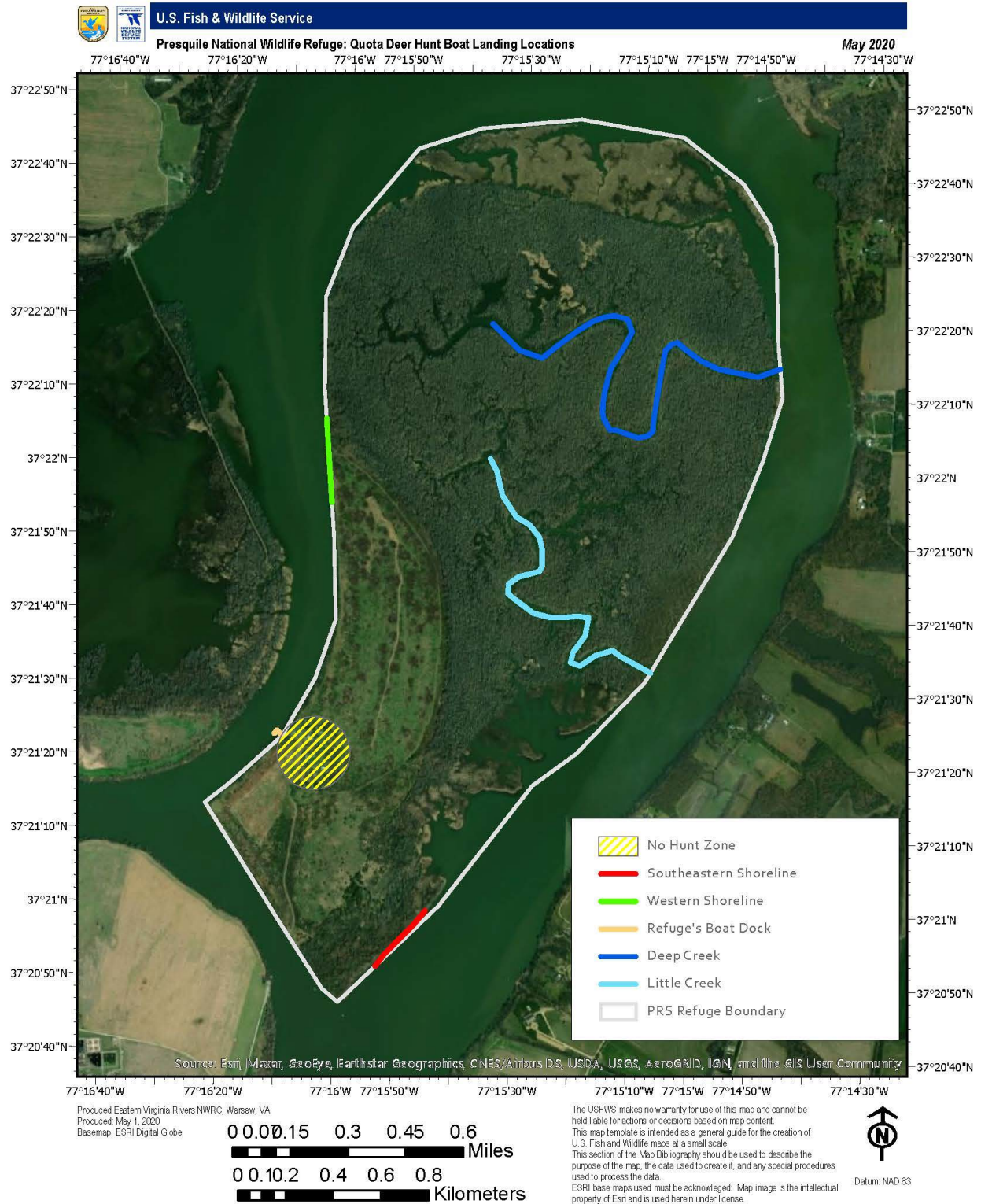
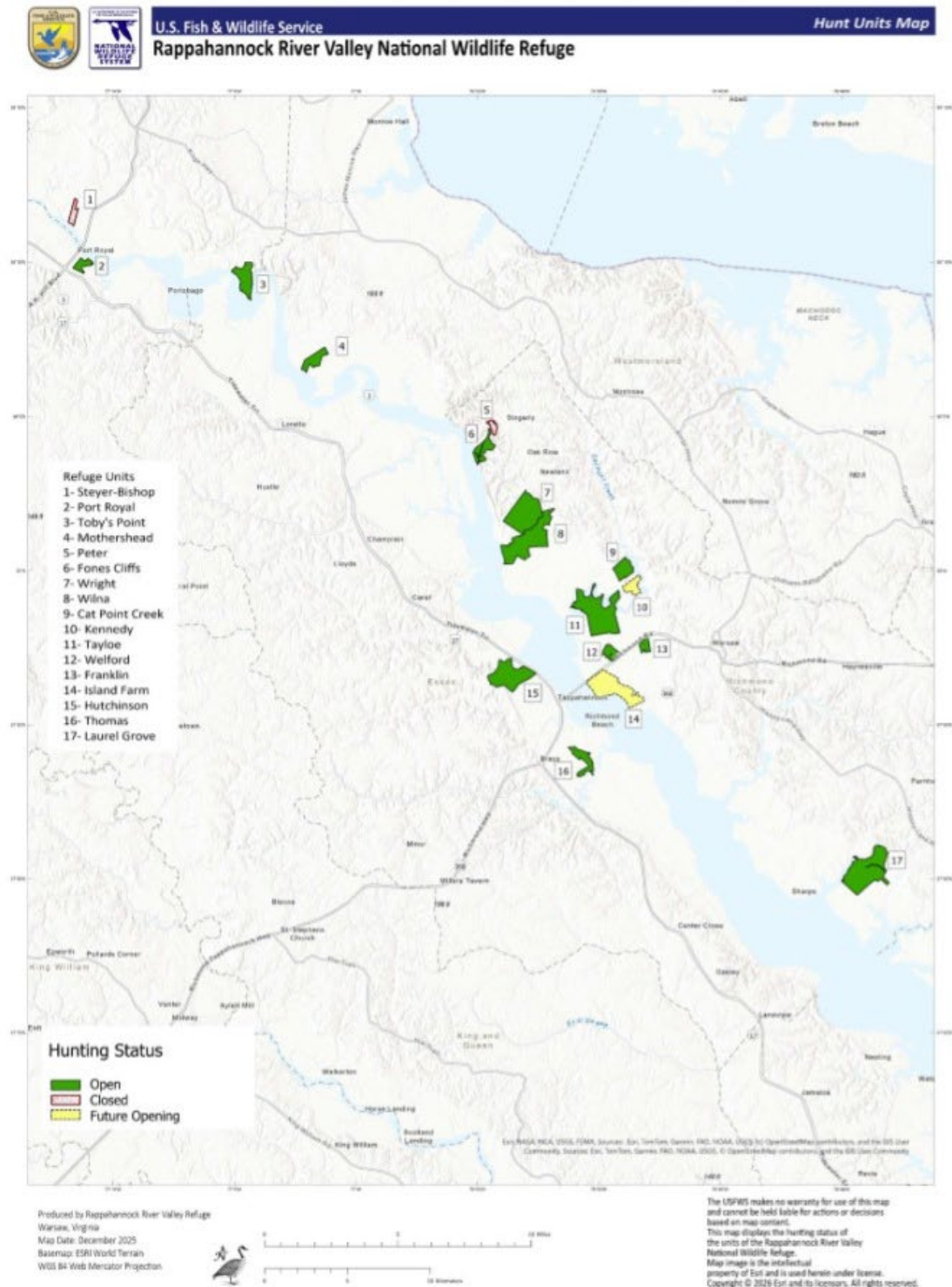


Figure 5: Rappahannock River Valley NWR Hunt Map



Compatibility Determination

Title

Compatibility Determination for hunting at James River National Wildlife Refuge.

Refuge Use Category

Hunting

Refuge Use Type(s)

Hunting of big game, small game, furbearers and waterfowl

Refuge

James River National Wildlife Refuge

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

James River National Wildlife Refuge (NWR) was established in March 1991 as the fourth refuge established specifically for bald eagles under the authority of the Endangered Species Act. The refuge purpose from that statutory authority is:

“to conserve...fish or wildlife which are listed as endangered species or threatened species” 16 U.S.C. §1534 (Endangered Species Act of 1973), and

National Wildlife Refuge System Mission

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

Description of Use

Is this an existing use?

Yes.

This compatibility determination (CD) reevaluates and replaces the 2021 CD for Hunting. Hunting has been conducted on the refuge since 1991 and for decades prior to the refuge establishment. The use is consistent with the 2021 Hunting and Recreational Fishing Plan and associated Environmental Assessment (EA) and Finding

of No Significant Impact (2021). The previous 2021 CD was released with the draft hunt plan and EA for public review and comment from April 9 through July 6, 2021. A total of twenty (20) unique commentors offered input to the refuge. The agency responded to those comments in the Finding of No Significant Impact.

This use is being reevaluated due to proposed changes to the refuge's hunt program as described in the 2026 Hunting and Fishing Plan, Environmental Action Statement, and Categorical Exclusion. The agency proposes to open 4,142 acres the following upland game species (bobcat, red fox, raccoon, striped skunk, and opossum) and 300 acres to groundhog hunting. The FWS proposes increasing fall hunt days to Saturdays and Sundays as well as opening Saturdays and Sundays beginning the second Saturday of January through the last Sunday of February to small game hunting on 300 acres for the general public. The FWS also proposes removing 160 acres of huntable acreage due to safety concerns with a neighboring property.

The 2021 Hunt Plan required the use of lead-free ammunition for small game (gray squirrel and rabbit), turkey, and coyote, effective immediately. The 2021 Hunt Plan also set forth a delayed implementation requirement of lead-free ammunition for white-tailed deer, effective September 1, 2026. The FWS proposes to withdraw the lead-free requirements detailed in the 2021 plan, in response to current lack of reasonable and prudent alternatives, and recent directives aimed at reducing regulations (Executive Order (E.O.) 14192, Unleashing Prosperity Through Deregulation, dated January 31, 2025; Secretarial Order (S.O.) 3421, Achieving Prosperity through Deregulation, dated February 8, 2025; and S. O. 3447: Expanding Hunting and Fishing Access, Removing Unnecessary Barriers, and Ensuring Consistency Across the Department of Interior Lands and Waters, dated January 7, 2026). The historical, federal nation-wide non-toxic shot requirement for ducks, geese, brant, swans, and coot from 1991 remains in effect (50 CFR 20.21(j)).

What is the use?

Multiple types of hunting are permitted under this compatibility determination, including big game, small game, furbearers and waterfowl. Recreational hunting of big game includes deer and turkey. Recreational hunting of upland game includes groundhog, rabbit, squirrel, bobcat, coyote, red fox, opossum, raccoon, and striped skunk. Waterfowl hunting includes mergansers, ducks, coots, Atlantic brant, Canada goose, and light goose.

Is the use a priority public use?

Yes

Where would the use be conducted?

Hunting will be permitted across 4,142 acres (See Figure 2 in the 2026 Hunting and Fishing Plan). Big game and bobcat, coyote, red fox, opossum, raccoon, and striped skunk hunting would be allowed across these acres during the fall archery,

muzzleloader and firearms deer seasons. Additionally, approximately 2,000 acres of this area will be open for spring turkey quota hunts in units E, F, G, H, I, J.

Groundhog, gray squirrel and rabbit hunting would be permitted on 4,142 acres during the winter season through mentor-led hunts and a portion of that acreage (300 acres) for general public hunts.

Waterfowl hunting will also be allowed in waterfowl blind on Powell Creek through state mentor-led hunts.

All hunting would be excluded from no-hunting zones that include designated public use area and designated safety zones.

When would the use be conducted?

Hunting will be conducted in accordance with federal and state regulations. In cooperation with the state, we may adjust hunt season dates and bag limits in the future to be more restrictive than state regulations as needed to achieve wildlife population levels consistent with refuge goals. The FWS will make a reasonable effort to allow hunters access to all portions of the hunt areas, and provide safe, quality hunting opportunities. However, we may have to close for hunting if unsafe conditions arise or if potential impacts to wildlife resources occur. Hunting will only occur on the refuge between October 1 and April 26 (specific dates depend on the species). Night hunting is not allowed on the refuge. Hunters may enter the refuge 1 hour before state posted legal shooting time in the morning and must leave no later than 1 hour after legal shooting time in the evening.

Deer

Deer hunting would be permitted on Saturday and Sundays during the state archery, muzzleloader, and shotgun seasons between October 1 and first Sunday in January. Archery hunting is open during October. The muzzleloader season falls during the first two weeks in November. The shotgun season occurs from mid-November through the first weekend in January. These are general season periods and may change as the State of Virginia regulations change. All hunting hours will follow state regulations.

Turkey

Turkey hunting will follow same schedule as deer hunts during the fall season (Saturdays and Sundays from October through the first weekend in January with state and county approved method of take). Spring turkey hunting would be open for three half-days in the first segment of spring turkey season early April. Spring turkey hunting would also be open on the Saturday of the Youth and Apprentice weekend as designated by the state (usually early April). The seasons may change as the state

regulations change. All hunting hours will follow state regulations.

Upland game

Bobcat, coyote, red fox, opossum, raccoon, and striped skunk hunting will occur in accordance with state seasons and regulations by species but will follow deer hunt days and method of take seasons. Hunting will take place Saturdays and Sundays from October 1 through the first weekend in January. These are general season periods and may change as the State of Virginia regulations change. All hunting hours will follow state regulations.

Groundhog, gray squirrel and rabbit hunting will occur in designated units on Saturdays and Sundays from the second weekend of January to February 28th. All state legal methods of take are permitted during this time. These are general season periods and may change as the state regulations change. The refuge does not allow night hunting so hunting hours will be restricted to half an hour before sunrise and half an hour after sunset.

Migratory bird

All migratory bird hunting hours will follow state regulations. Annual migratory game bird seasons are selected by the state from a framework established by the FWS. The state selections are made after reviewing last year's season results, survey data, and input gathered from migratory game bird hunters and the public. Hunting in designated blind will be in coordination solely through state mentor-led hunts.

Specialty/Mentor-Led Hunts

All species may be open to special hunts throughout the state season for that species. The goal of the special hunts is to provide quality recreational hunting experiences that may be limited or not available for underserved hunting populations within the structure of general public hunting. The populations targeted for these special hunts are mentor-led hunters, youth hunters, hunters with disabilities, non-male hunters, veterans, and senior hunters.

How would the use be conducted?

To ensure a quality hunt and visitor and staff safety, all hunting activities are in accordance with federal and state regulations, subject to refuge-specific regulations. 50 CFR contains the federal regulations pertaining to the National Wildlife Refuge System Administration Act. State regulations, such as seasons, bag limits, and general methods of take, are published annually in the Virginia Hunting and Trapping Digest. Trapping is not considered a method of take as defined in this compatibility determination and is evaluated through a separate compatibility determination. The refuge manager may, upon annual review of the hunting program, impose further restrictions on hunting, recommend that the refuge be closed to hunting, or further

liberalize hunting regulations up to the limits of state regulations. We will restrict hunting if it becomes inconsistent with other priority refuge programs or endangers refuge resources or public safety.

General information will be available in hunting brochures and refuge maps, located at the Eastern Virginia Rivers National Wildlife Refuge Complex (Complex) headquarters. Maps will show refuge trails, public use areas, closed areas, and approved access roads that are clearly defined. Hunters can address questions to refuge staff by calling, writing, e-mailing, or visiting the Complex headquarters in Warsaw, Virginia. Signs alerting the visiting public to educate themselves of the timing of hunting seasons will be posted at the refuge office and at access points and kiosks. Advance notification of hunting opportunities will allow hunters to prepare, plan, and scout, which ultimately improves the quality of their hunting experiences. Whenever possible, the refuges will designate scouting days prior to any hunting to provide hunters an opportunity to scout the refuge units, thus becoming more familiar with the unit, habitats, refuge boundaries and facilities.

Only portable tree stands and blinds will be allowed. Hunters are required to hunt from tree stands, elevated no less than 10 feet above the ground while using a rifle and during muzzleloader deer season. In all other hunts, hunters may hunt from the ground or a portable tree stand. Tree stands and ground blinds must be removed at the end of each day. No permanent hunting stands/blinds may be constructed on refuge lands. All access points will be delineated on refuge hunt maps and will be included in the annual hunting brochure.

Rules, regulations, and conditions of the hunt will be posted in the months prior to the hunt season on refuge website, refuge kiosk, and other publications. The mentor-led hunts and state youth/apprentice hunts will not require a permit or fee. Quota hunts require a permit fee, which will be retained by the refuge to offset the cost of the hunt. Hunters would need to attain all other applicable local, state and/or federal licenses, permits, or stamps in accordance with local, state, and federal laws. Additional details on refuge-specific regulations and procedures can be found in the Hunting and Fishing Plan.

The 2021 Hunt Plan required the use of lead-free ammunition for small game (squirrel and rabbit), turkey, and coyote, effective immediately. The 2021 Hunt Plan also set forth a delayed implementation requirement of lead-free ammunition for white-tailed deer, effective September 1, 2026. The FWS proposes to withdraw the lead-free requirements detailed in the plan, in response to current lack of reasonable and prudent alternatives, and recent directives aimed at reducing regulations (E.O. 14192, S.O. 3421, and S. O. 3447). The historical, federal nation-wide non-toxic shot requirement for ducks, geese, brant, swans, and coot from 1991 remains in effect (50 CFR 20.21(j)).

Why is this use being proposed or reevaluated?

Hunting is one of the priority public uses defined by the Refuge System Administration Act of 1966, as amended by the Refuge System Improvement Act of 1997 (Public Law 105-57). Department of the Interior Secretarial Order 3356 (September 15, 2017) emphasized identifying opportunities to increase outdoor recreation opportunities for all Americans, including opportunities to hunt and fish. This legitimate and appropriate use of a national wildlife refuge is generally considered compatible, as long as it does not materially interfere with or detract from the fulfillment of the Refuge System mission or the purposes of the refuge.

Per FWS Policy 603 FW 2.11H.1 “We will reevaluate compatibility determinations for existing wildlife-dependent recreational uses when conditions under which the use is permitted change significantly, or if there is significant new information regarding the effects of the use, or concurrently with the preparation or revision of a comprehensive conservation plan, or at least every fifteen (15) years, whichever is earlier...” In this instance, rescinding the lead-free ammunition requirement that was implemented in the 2021 Hunting and Fishing Plan necessitated reevaluation of compatibility for this use.

Additionally expanding hunting opportunities and aligning regulations with state agencies implements S.O. 3347 Conservation Stewardship and Outdoor Recreation, S.O. 3356 Hunting, Fishing, Recreational Shooting, and Wildlife Conservation Opportunities and Coordination with States, Tribes, and Territories, and the 2025 Director’s Memo for an Annual Update for the 2026-2027 Hunting and Sport Fishing Seasons on National Wildlife Refuges and National Fish Hatcheries. The hunt program is administered in accordance with sound wildlife management principles and the utmost concern for public safety.

Availability of Resources

To comply with the Refuge Recreation Act (Public Law 87-714) and Refuge Improvement Act (Public Law 105-57), the Refuge Manager must determine whether sufficient resources—financial, staffing, facilities, or other infrastructure—are available to support the proposed use without materially interfering with the refuge purpose(s) or the mission of the National Wildlife Refuge System. This determination should be informed by a review of current capacity and, where applicable, the refuge’s Comprehensive Conservation Plan (CCP).

Assessment of current resources and capacity

The Refuge Manager will use sound professional judgment to determine the funding and staffing needed to perform the functions necessary to ensure compatibility.

These functions include trail, parking lot, and road maintenance, developing annual refuge hunting regulations factsheets, updating the website, inventory and monitoring of game species, and reporting. If the refuge does not have the resources to carry out these functions, compatibility of the refuge use may be reevaluated and discontinued at that time.

The resources needed to administer this use are currently available. However, adequate levels of refuge staffing, funding, and facilities are necessary to administer this use in a manner that ensures continued compatibility (603 FW2 2.11(A.2)). Therefore, a reduction in any of these resources may prompt the Refuge Manager to reevaluate the compatibility of this use, and the Refuge Manager may decide to modify or discontinue the use.

We estimate that the recurring annual expense to administer this use is \$6,000. This includes the cost of maintenance (varies based on the amount of trail, parking lot and road use by this activity) and staff time for developing materials and monitoring the use.

Impacts of changes to resources and capacity

The availability of resources is subject to change and the level of use provided may vary based on current staffing, partner support, funding, or infrastructure conditions. Costs may increase over time, in relation to changes in the costs for equipment, maintaining facilities, etc. A substantial increase to the number of requests may also create the need for additional resources to administer the use. The Refuge Manager will use sound professional judgment in evaluating whether the refuge or its partners can develop, operate, and maintain the use in a compatible manner.

For priority public uses—including hunting, fishing, wildlife observation and photography, or environmental education and interpretation—if resource conditions shift such that the refuge can no longer sustain the use in a compatible manner, the Refuge Manager may temporarily modify or suspend the use pursuant to 50 CFR 25.21(E) for a period of up to one year). If it becomes apparent that insufficient resources will be sustained into the long-term, the Refuge Manager may reevaluate the compatibility of the use and discontinue the use if necessary. The public will be notified of any changes to refuge uses, including temporary modification or suspension, reevaluation of compatibility and/or discontinuing of refuge uses.

Anticipated Impacts of the Use

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

Hunting was evaluated in the environmental assessment associated with the 2021 Hunting and Recreational Fishing Plan (USFWS 2021). Hunting has been found not to significantly impact the human environment through the Finding of No Significant Impact. Additionally, hunting is being evaluated through the draft 2026 Categorical Exclusion. The analysis below is supplemental to the previous environmental effects described in those documents. The effects and impacts of the proposed use to refuge resources, whether adverse or beneficial, are those that are reasonably foreseeable and have a reasonably close causal relationship to the proposed use. This CD includes the written analyses of the environmental consequences on an affected resource only when the impacts on that resource could materially interfere or detract from the purpose for which a refuge was established and the mission of the Refuge System.

Hunting has occurred on some refuge lands for many years with no discernible adverse impacts, or significant conflicts with other priority public uses. Hunting provides wildlife-dependent recreational opportunities that can foster a better appreciation and more complete understanding of wildlife and habitats associated with the Chesapeake Bay ecosystem, which could translate into stronger support for wildlife conservation, the refuge, the Refuge System, and the FWS.

To the best of our knowledge, there are negligible impacts to wildlife populations, including special status species, or habitats from lead ammunition. Hunting is not expected to meaningfully affect wildlife population health on the refuge, in relation to the background rate of residual lead into the environment from hunting activities at large. The best available science suggests that where lead ammunition use is authorized, impacts to wildlife from direct ingestion are observable but would not approach a threshold of significance at the population level (AFWA 2018), while food chain biomagnification is negligible (Behan et al. 1979; Eisler 1988; Wong et al. 1978).

The refuge continues to educate hunters on lead-free alternatives and encourage voluntary use of lead-free ammunition for all hunts. The refuge also educates hunters on best management practices (e.g., removal of carcass when possible) to reduce the impact of continued use of lead ammunition on non-target wildlife during refuge hunts. The nature of hunting on the refuge reduces the potential that wildlife will be at great risk from lead exposure, especially given the large huntable area, multiple access sites, and the small number of hunters. The number of individuals of a

species that may be exposed to toxic amounts of lead are so small that we do not anticipate any long-term population level effects to wildlife residing on or migrating through the refuge. For more information on the effects of lead as a result of hunting on wildlife, including threatened, endangered, and special status species, habitat, and the human environment, see the 2021 Eastern Virginia Rivers National Wildlife Refuge Complex Hunting and Recreational Fishing Plan and associated Environmental Assessment.

Vegetation and Soils

Repeated visitation to any particular locale at the refuge would continue to cause minor site-specific damage to vegetation and soils. Accidental introduction of invasive plants, pathogens, or exotic invertebrates attached to vehicles, shoes, or clothing is another source of direct minor impacts on vegetation. In places where unmarked paths are created by hunters, little used pathways will retain their dominant vegetation species, but on medium-use pathways some plant species will be replaced, and heavily used paths will often contain invasive species (Liddle and Scorgie 1980).

Using staff observations of past impacts, hunting is expected to have negligible adverse impacts on vegetation in the short and long-term. Disturbance to vegetation may occur when hunters travel off trail through upland habitats. We expect negligible impacts to vegetation would result because the hunters disperse themselves or are assigned to designated hunt locations across the refuges. Hunters typically only travel as far as needed to find a desirable hunting location. At James River NWR, parking is only available along refuge roads and pull-offs. Furthermore, most vegetative species will have already undergone senescence or become dormant during when much of the hunting season occurs.

Positive effects on the vegetation would result indirectly from a reduction in the deer population. The impacts of dense deer populations on forest regeneration and the composition and diversity of the herbaceous understory have been well-documented (Tierson et al. 1966, Tilghman 1989). Allowing public deer hunting to continue on the refuge would maintain the habitat as it is now and prevent degradation due to overbrowsing. Well-managed hunting can effectively control deer and produce dramatic changes in the forest vegetation (Behrend et al. 1970). The impact of deer hunting on the vegetation would be positive and result in better regeneration of forest canopy species and an increase in the diversity of the herbaceous understory.

In summary, there would be few if any negative impacts from this use on the refuge's vegetation, but there would be beneficial impacts from the decrease of deer browse on the refuge's vegetation due to the decrease in the number of deer on refuge lands.

Water Resources and Wetlands

Hydrology impacts would be minimal and primarily result from use of roads and trails. However, hunting is expected to have minimal effects as hunters are generally dispersed, which reduces repeated erosive actions on soils. Additionally, hunters will have designated parking areas which will help prevent increased ruts in roads and water runoff pathway disturbance. Parking outside of designated areas has been an issue in the past necessitating the installation of additional signs to direct Refuge hunters/visitors.

It is anticipated that hunting on the refuge will have minor impacts to wetlands. Big game and small game hunting is limited to upland habitats. Waterfowl hunting would be the only hunt to consistently use wetlands and will be restricted to designated stationary hunt blind. The use of no more than two retrieval dogs per hunting blind will further mitigate wetland disturbance.

Wildlife

White-tailed deer

Virginia's deer population is estimated to be between 850,000 and 1,000,000 deer and is not at risk of overharvest (VDGIF 2015). The state determines seasons and bag limits based on regional deer harvest data. The state's deer management program regulates deer hunting toward maintaining at moderate to low population densities, in fair to good physical condition, and below the biological carrying capacity of the habitat (VDGIF 2015). High deer densities have been shown to negatively affect plant and animal communities. Therefore, a hunting program would help to facilitate ecological diversity by mitigating the effects of high deer densities. Deer densities, if maintained through regulated hunting, will sustain the native vegetation and forest regeneration associated with the natural communities in those regions. Regulated deer hunting will also maintain a deer herd in good physical condition that staves off malnutrition and disease as well as prevents direct negative impacts to other wildlife and present habitat. For example, heavily browsed habitats (a result of insufficient food for the herd size) have shown to decrease migratory songbird foraging opportunity (deCalesta 1994).

While refuge specific data is unavailable, the average deer take in Virginia is 3 to 5 deer per hunter (Martin 2020). However, due to the over population of deer throughout the counties within our refuge and relatively low number of deer harvested on the refuge, hunting on the refuge is predicted to have minimal adverse impacts on the local population.

Turkey

VADWR estimated that the turkey population was nearly 180,000 individuals in 2014 with increasing populations in all counties encompassing our refuge (VADGIF 2014). Fall turkeys will only be harvested opportunistically during the deer season, which

limits hunter impacts during the fall season. The spring turkey seasons will be offered on a VADWR-designated day for youth hunts and in the beginning of the season to avoid impacts with migratory birds. Regulated hunting following state seasons and bag limits is not anticipated to have any long-term adverse impacts on local or regional turkey populations.

Birds like turkey that forage on the ground and use grit to help in digestion are at risk of lead exposure through the direct ingestion of spent lead shot (Larsen et al. 2007; Franson et al. 2009; Fisher et al. 2006). Exposure to lead has not broadly declined for game birds where lead shot and ammunition are still commonly used (Haig et al. 2014). Population level impacts to upland birds are not anticipated to occur from removing the lead-free restriction on the refuge.

Upland Game (Bobcat, Coyote, Red fox, Opossum, Raccoon, Striped skunk, squirrels, rabbit and groundhog)

Upland Game species hunted on the refuge include bobcat, coyote, red fox, opossum, raccoon, striped skunk, squirrels, rabbit and groundhog. Each of these species are common species across the State of Virginia and found on the refuge. Bobcat, coyote, red fox, opossum, raccoon, and striped skunk will be hunted opportunistically during fall deer hunting days. To minimize impact on the refuge habitats and protect safety, hunting with dogs and night hunting is prohibited on the refuge. These species can be hunted by stand hunting only. Each of these species will be hunted within the state set season and following state bag limits. Hunting gray squirrel, eastern cottontail, marsh rabbit and groundhog on the refuge would be in accordance with federal, state and refuge-specific regulations. The state relies on broad scale information to set harvest rates, as these species are common throughout the state. Currently, the bag limits for all types of squirrel and rabbit are 6 per day. Small game hunting is expected to have minimal adverse effects on targeted populations. Winter season general public hunts will occur in designated zone(s). Mentor-led hunts will be designated to specific zones, allowing for enhanced hunter opportunity and safety.

No long-term adverse impacts on local or regional populations of these species are anticipated from this addition. Mentor-led hunts will be designated to specific zones, allowing for enhanced hunter opportunity and safety.

Mammals are primarily exposed to lead through ingestion of lead shot and bullet fragments in carcasses or gut piles left by hunters. Scavengers such as coyotes have exhibited elevated lead blood levels during the fall hunting season (Bedrosian and Craighead 2006, Rogers et al. 2012).

Mortality in mammals due to lead ingestion is not as prevalent as it is in birds. Currently there is limited evidence that demonstrates population-level impacts to

mammalian species (AFWA 2018). It is expected that due to feeding behaviors, some mammal species are more likely than some bird species to be exposed to smaller amounts of lead, relative to body mass, but over extended periods of time (Hydeskov et al. 2024). For example, waterfowl are known to pick up large numbers of lead pellets or fishing weights when foraging (Pain et al. 2019), yet most wild mammals would not be exposed to such large amounts of lead at once, as they forage using different methods, particularly carnivores (Hydeskov et al. 2024).

Although lead is a known potent neurotoxin (Eisler 1988), the proposed removal of the lead-free ammunition requirement for hunting is not expected to meaningfully affect wildlife population health on the refuge, in relation to the background rate of discarded lead into the environment from hunting activities at large.

Waterfowl and other migratory birds

Migratory game birds are managed on a flyway basis and hunting regulations are established in each state based on flyway data. Federal and state regulations would apply in the refuge waterfowl hunt. Waterfowl hunter numbers in Virginia have been generally stable since the late 1990s. Since 1999, the Harvest Information Program (HIP) has been used to estimate hunter effort and harvest. The average number of duck and goose hunters over the past 5 years (2020–2024), as measured by HIP, was 16,300 and 10,360 respectively for a total of 19,020 waterfowl hunters on average in Virginia. The state average hunter harvest per season is 8.2 ducks and 3.4 geese.

Waterfowl hunting will only occur from one stationary blind with a maximum of 3 hunters per blind. The season is based on state-defined seasons. Bag limits for waterfowl will coincide with the appropriate federal and state regulations. All waterfowl hunts at the refuge will be run through the state mentor-led program. The use of retrieving dogs for waterfowl hunting is encouraged; however, the dogs must be under the hunter's control at all times, and no more than two dogs are permitted per blind (no more than one dog per hunter).

Additionally, fall is the season for bird migration, and hunting may disturb their resting and foraging during this critical time. Migrating and wintering birds may be foraging and roosting in upland and wetland habitats. Hunting activity may cause these birds to unnecessarily take flight, expending energy resources when food resources are limited. Because this use is not concentrated in space or time (it occurs on select days throughout the refuge during designated times within the hunting season), the disturbance effects on wildlife that are using the refuge during fall and winter are not expected to be significant. In addition to direct mortality, hunting could result in some short-term redistribution due to disturbance, but impacts are expected to be minimal (Tamisier et al. 2003).

We will limit human disturbance in the majority of the refuge by only allowing waterfowl hunting to occur at the designated hunt blind. On non-hunting days, waterfowl can rest, feed, and move throughout the entire refuge without the influence of human disturbance. Shooting impacts may include noise disturbance and take. Noise can have impacts beyond the hunt areas and take has associated risk of being incidental or accidental take. Larkin et al. (1996) conducted a literature review finding firearm blasts as being likely to drive roosting waterfowl from preferred habitat.

Hunting waterfowl on the refuge would make the birds more skittish and prone to disturbance, reduce the amount of time they spend foraging and resting, and alter their habitat usage patterns (Raveling 1979, Owen 1973, White-Robinson 1982, Madsen 1985, Bartelt 1987) and the use of dogs for retrieval could increase these impacts. While free-roaming dogs can be potential disturbance sources; the brevity of their presence as well as infrequent disturbance will be less impactful than the disturbance caused by the hunters (Bell and Owen 1990). The dogs will be trained for retrieval only (versus flushing) which further mitigates possible disturbance. In addition, dogs are required to be under the control of their owners and will be in the blind with the hunters. Their disturbance to vegetation is also expected to be minimal as most emergent and/or submerged aquatic vegetation will be dormant and to retrieve the waterfowl dogs mostly swim and/or are partially supported in the water.

Non-target species

Hunting can have impacts on both target and non-target species. These impacts include direct mortality of individuals, changes in wildlife behavior, changes in wildlife population structure, dynamics, and distribution patterns, and disturbance from noise and hunters walking on- and off-trail (Cole and Knight 1990, Cole 1990, Bell and Austin 1985). However, under the anticipated levels of use these impacts are expected to be minimal. Hunters tend not to disperse very far from parking areas and roads, which leaves large areas of refuge land undisturbed. Additionally, the timing of the hunt is such that many native wildlife species are not present or dormant at the time of the hunt and, therefore, unlikely to be affected. Impacts on amphibians and reptiles are expected to be negligible because these species are preparing or already hibernating or in torpor (dormancy) during the hunt season on the refuge (typically occurring mid-November through mid-December). Impacts to invertebrates such as butterflies, moths, other insects, and spiders are expected to be negligible.

Invertebrates are not active during the majority of the hunting seasons and would have few interactions with hunters during the hunting season. However, wildlife is impacted by human presence differently where birds avoided places where people were present and when visitor activity was high (Burger 1981, Klein et al. 1995, Burger and Gochfeld 1998) while mammalian use of trails in eastern forests was not impacted by hikers (Kays et al. 2017). Additionally, noise, caused by visitor activity resulted in

increased levels of disturbance of wildlife regardless of group size (Burger 1986, Klein 1993, Burger and Gochfeld 1998).

Wounded or unrecovered deer have the potential to be sources for unintentional lead ingestion by scavengers. Elevated blood levels have been documented in mammalian scavengers, but not at levels that impact populations (AFWA 2018). Raptors, particularly eagles and scavengers, can be susceptible to lead poisoning when they ingest lead fragments or pellets in the tissues of animals killed or wounded by lead ammunition (Haig et al. 2014; Church et al. 2006; Hunt et al. 2006; Pauli and Buskirk 2007; Herring et al. 2016). Raptors that scavenge on carcasses or offal piles on refuge lands could be exposed to spent ammunition in the tissues of hunter-killed big game. The potential negative health impacts of lead on wildlife are complex. Residues from lead-based hunting ammunition and fishing gear can cause negative health effects, up to and including mortality, when they are unintentionally ingested. The best available science suggests that where lead ammunition use is authorized the impacts from direct ingestion are less than significant at the population level (AFWA 2018), and although it may impact population growth rates, have not led to population declines in even the most susceptible species (Slabe et al. 2022).

The hunt program would have minor, direct, short-term impacts on non-target birds because the hunting season occurs outside of the breeding and migratory seasons for songbirds, shorebirds and waterbirds. Impacts would be minimized by enforcement of state and federal regulations, including the use of non-toxic shot for waterfowl hunting (4VAC15-260-140 and 50 CFR 20.21, respectively), and refuge-specific regulations that limit the number of public hunt days, hunt locations, hunting party composition, and hunting practices (50 CFR 32.65).

Threatened and Endangered Species and Other Special Status Species

Federal endangered or threatened species that are found (or may be found) within the acquisition boundary of the refuge include Atlantic sturgeon, Indiana bat, Northern long-eared bat, Eastern black rail, sensitive joint-vetch, small whorled pogonia, and swamp pink. Proposed species include the tricolored bat and the monarch butterfly. Special federal status species include bald eagles. Overall, it is expected that this use will not conflict with recovery or protection of these species. There have been no traceable issues to date. A detailed Intra-Service Section 7 Evaluation can be found in Appendix J. It provides further analysis on potential impacts, including from lead, to the species listed below. A summary of potential impacts is included here.

Impacts of hunting vary as a result of the permitted number of hunters, the hunt area,

the season, hours, and methods of take. Shooting impacts may include noise disturbance and take. Noise can have impacts beyond the hunt areas and take has associated risk of being incidental or accidental take.

Atlantic sturgeon

The Chesapeake Bay Atlantic sturgeon population is listed as federally endangered. Atlantic sturgeon utilize large coastal rivers and estuaries including the James River as important spawning grounds. Virginia Commonwealth University and Virginia Institute of Marine Science have conducted trawl surveys and confirmed fry and adult Atlantic sturgeon offshore of James River NWR. The potential for lead impacts to Atlantic sturgeon is discountable because of the species preferred habitat and spawning grounds. This type of habitat is typically only hunted by waterfowl hunters, which are legally required to use lead-free shot. Since hunting, including the use of lead ammunition, is highly unlikely to overlap with Atlantic sturgeon in time or space, this species is not likely to be adversely affected by the proposed activities.

Indiana bat, Northern long-eared bat and tri-colored bat

Indiana, tri-colored and Northern long-eared bats primarily use mines and caves in the winter to hibernate in the western part of the state and use upland forests to forage and roost throughout the rest of the year. The only hunting that takes place May through August when bats might be raising young is during turkey season in April/May. Bats might still occur in hunting zones in September and October, but the numbers would be few as most will have left for their hibernaculum.

Potential disturbances from expanded hunting, such as an increase in gun noise or additional portable tree stands, are expected to be insignificant. Noise from firearms could disturb roosting bats, but it is likely that the bats would remain in the tree during daylight hours. Such noise disturbances are temporary, not fundamentally unlike other temporary disturbances that bats may naturally experience without long-term effects, and therefore any potential effects are expected to be insignificant. If disturbed, it's likely that the bats would remain in its tree but even if a bat is flushed, the animal would fly away from the disturbance to roost in a nearby tree, which is a normal behavior and a response typical to many kinds of natural disturbances without long-term effects. Further, hunting activities would not result in any roost tree destruction as no tree cutting or other habitat alteration is permitted on the refuge. Hunting is also not permitted at night when bats are most active. For turkey hunting, the activities are strictly on the ground, so there is no tree stand use, and it is a diurnal activity. Spring turkey hunts are also only three (3) days, with limited hunters per unit, to maximize success and opportunity. Given the small number of participants, and the fact turkey hunting will occur in locations that are very unlikely to overlap with the presence of the bats, any potential disturbance effects from mentored turkey hunts are extremely unlikely to occur and are therefore

considered discountable.

The potential for bats to be adversely affected by lead bioaccumulation is discountable due to their diet and foraging habits. Lead bullet fragments would have to break down in the soil to be taken up by plants near the area in which the fragments fall on or penetrate the soil surface. Typically, however, plants do not take heavy metals up until they have reached critical thresholds in the soil (Sharma and Dubey 2005). If lead is taken up by plants, it is mainly through the root system and partly in minor amounts through the leaves. Inside the plants lead accumulates primarily in the root, but some is translocated to the aerial portions. Larvae of certain herbivorous insect species could ingest some of the lead when they eat the exposed plants. Some of the insects could then be consumed by bats. The bats' diets are comprised of insects such as moths, flies, wasps, leafhoppers, caddisflies and beetles, only some of which are herbivorous. In addition, bats are transitory in nature and will not consume their entire diets on the refuge area. Considering the chain of events that are necessary for exposure and the small amount of lead that would contribute to lead concentrations in refuge soils, it is unlikely that bats that occur on refuges will consume lead derived from ammunition fired by hunters on the refuge. Impacts are not likely to adversely affect Indiana bats or Northern long-eared bats and are not likely to jeopardize the continued existence of tricolored bats.

Eastern black rail

The Eastern black rail is a sparrow-sized, secretive marsh bird. Eastern black rail habitat can be tidally or non-tidally influenced, and range in salinity from salt to brackish to fresh but must be densely vegetated. The eastern black rail may occur at James River NWR, but it hasn't been confirmed. The potential for lead impacts to Eastern black rails is discountable because of the bird's preferred habitat which can be tidally or non-tidally influenced, and range in salinity from salt to brackish to fresh but must be densely vegetated. This type of habitat is typically only hunted by waterfowl hunters, which are legally required to use lead-free shot. Since hunting, including the use of lead ammunition, is highly unlikely to overlap with Eastern black rail in time or space, this species is not likely to be adversely affected by the proposed activities.

Green floater and yellow lance mussels

The yellow lance are freshwater mussels that are found in moderate flowing water with high dissolved oxygen content in riverine or larger creek environments with coarse to medium sand beds. The green floater thrives in similar habitats but prefers the quieter pools and eddies.

Lead accumulation from hunting activities is not likely to adversely affect mussel

populations because they are aquatic species that live in flowing waters. There is a chance that lead could enter the water where mussels live; however, lead is not usually soluble in water unless particular conditions exist such as soft acidic water which contains a higher dissolved lead content (Rattner et al. 2008). Even if the amount of lead added to the refuge from ammunition reaches the rivers, it is not likely to accumulate in the water column of the flowing rivers and affect filter feeders like mussels.

Monarch butterfly

Monarch butterflies use the refuge grasslands, wetlands, old fields, agricultural margins, and roadsides during spring and fall migration, as well as during the spring and summer breeding season. Hunters are most likely to use tracts through forested parts of the refuge, where monarchs and their nectaring plants generally do not occur. Furthermore, given that only light foot travel from hunters accessing the area is expected to occur on these acres, we anticipate that any potential damage to nectaring plants from foot traffic disturbance will be extremely unlikely, and therefore considered discountable. These impacts are considered insignificant, as the disturbance would consist of monarchs being temporarily flushed by hunters, a similar reaction to other temporary disturbances that monarchs may naturally experience without long-term effects.

The potential for lead impacts to monarchs is discountable due to their diets. Adult monarch butterflies feed on nectar. However, exposure relies on the very unlikely occurrence that lead concentrations in the soil from hunting activities reach high enough levels for uptake by plants, and in this case, it would further require uptake by milkweed and the specific plants that monarchs rely on for nectar sources. Given that bioaccumulation through plants into caterpillars or butterflies is discountable, the proposed activities are not likely to impact the monarch butterfly population.

-While a small, dispersed concentration of lead may be present on the landscape due to use of ammunition or tackle containing lead, it is not likely to adversely affect these listed plants. Sharma and Dubey (2005) found that excess lead in plants causes a variety of toxic symptoms including stunted growth, chlorosis, blackening of root systems, inhibited photosynthesis, disrupted mineral nutrition and water balance, and altered plant hormones. Hunter and angler presence will be dispersed and they are unlikely to be concentrated in the areas where these species could be found. Also, the migration of lead from soil to roots and other parts of the plant is expected to be minimal, so the use of lead for hunting and fishing activities is not likely to adversely impact these species.

Sensitive joint-vetch is an annual legume that, occurs only along the edges of freshwater tidal creeks and marshes of the James River. The refuge supports suitable

habitat. It is very unlikely that any deer, turkey or small game hunting would occur in this remote and wet environment. Waterfowl hunting would occur from a designated blind. In the event that hunters did use these areas, the plants would have already set seed and died. Disturbance by hunters walking in these areas could have a positive impact in knocking down seed into the soil where they could germinate the following growing season rather than being blown or washed into the open water. However, it is unlikely that hunting would have any impact on this species.

Sensitive joint-vetch, small whorled pogonia, and swamp pink

Sensitive joint-vetch is an annual legume that typically flowers July through early October in the intertidal zone of coastal marshes where plants are flooded twice daily. The species seems to prefer the marsh edge at an elevation near the upper limit of tidal fluctuation, where soils may be mucky, sandy, or gravelly (USFWS 2010). It occurs along the edges of freshwater tidal creeks and marshes of the James River. Sensitive joint-vetch occurs on wetland edges that are often not utilized during hunting. It is very unlikely that any deer, turkey or small game hunting would occur in this remote and wet environment. Waterfowl hunting would occur from a designated blind. In the event that hunters did use these areas, the plants would have already set seed and died. Disturbance by hunters walking in these areas could have a positive impact in knocking down seed into the soil where they could germinate the following growing season rather than being blown or washed into the open water. However, it is unlikely that hunting would have any impact on this species.

Small whorled pogonia grows under canopies that are relatively open or near features that create long-persisting breaks in the forest canopy such as a road or a stream. It grows in mixed deciduous or mixed-deciduous/coniferous forests. They require overwintering with mycorrhizal fungi to germinate and form above ground in late August to September (USFWS 2011). It may occur at the refuge.

Swamp pink is a perennial wetland species with evergreen leaves. Swamp pink requires specific hydrologic conditions, and no populations are known to occur at James River NWR. Swamp pink occurs in wetland areas that are not often utilized during hunting.

While a small, dispersed concentration of lead may be present on the landscape due to use of ammunition containing lead, it is not likely to adversely affect sensitive joint-vetch, small whorled pogonia, and swamp pink. Sharma and Dubey (2005) found that excess lead in plants causes a variety of toxic symptoms including stunted growth, chlorosis, blackening of root systems, inhibited photosynthesis, disrupted mineral nutrition and water balance, and altered plant hormones. Hunter presence will be dispersed and they are unlikely to be concentrated in the areas where these

species could be found. Also, the migration of lead from soil to roots and other parts of the plant is expected to be minimal, so the use of lead for hunting activities is not likely to adversely impact these species.

Bald Eagle

After four decades of protection under the Endangered Species Act, the bald eagle was officially removed from the federal list of endangered and threatened wildlife in 2007. However, they are still protected under the Bald and Golden Eagle Act (Eagle Act) and the Migratory Bird Treaty Act. The FWS considered potential impacts to eagles under the Refuge Improvement Act in this CD and under NEPA in the associated 2026 CatEx.

Permitting public access to any waterfront or marsh managed by the refuge holds the possibility of affecting bald eagles. Impacts may either be displacement or temporary disturbance depending on extent of use of a given site by visitors and eagles. As trees mature and forest riparian buffers are improved, sites with low concentrations will likely increase in importance to bald eagles. We will avoid potential adverse impacts to bald eagles by strictly following the management guidelines developed in consultation with the Virginia Department of Wildlife Resources and the Center for Conservation Biology. These include sight and distance setbacks from nests and concentration areas, and time-of-year restrictions.

With regards to potential impacts from lead, eagles are both predatory and engage in scavenging of fish carcasses and gut piles left in the environment from fishing activities. This may present a risk of lead exposure from lead fragments remaining in the carcass/gut pile (Haig et al. 2014; Church et al. 2006; Hunt et al. 2006; Pauli and Buskirk 2007; Herring et al. 2016). Other avian scavengers with similar behavior are likely to face similar exposure.

The negative impacts of lead on wildlife are well documented (Golden et al. 2016, Grade et al. 2019). Non-toxic ammunition is already required for migratory bird hunting. Since 2021 the refuge has provided education materials and information on lead-free ammunition options for hunters, and the potential impacts lead ammunition has to wildlife. The refuge continues to encourage voluntary use of lead-free ammunition for all hunts. Impacts of continued lead ammunition usage can be reduced through best management practices. For turkey, furbearers and small game, the hunted species will usually be removed from the refuge as a full carcass which will help minimize the lead ammunition left on the landscape. For handling deer carcasses, the Virginia Hunting and Trapping Regulations Digest (2025) has suggestions for reducing lead exposure including removal of the entire carcass from the field and double-bagging materials before disposal. The refuge encourages hunters to follow these practices to reduce the impact of continued use of lead

ammunition on non-target wildlife during refuge hunts. Given lead ammunition impacts primarily will be tied to firearms hunting of deer, impacts are expected to be minimal across the refuge as a whole.

Visitors and Users

The refuge is primarily open to all six of the Refuge System's priority public uses (hunting, fishing, wildlife observation, wildlife photography, environmental education and environmental interpretation). In 2025, over 5,000 people visited the refuge for non-consumptive nature-based recreation. Approximately 800 visitors participated in hunting and fishing (consumptive uses) on the refuge. With the addition of new hunt species, no increase in the number of conflicts among user groups is expected. Public outreach, zoning, and species/method-of-take restrictions in some locations have been used in the past to reduce conflicts among the different user groups. If conflicts arise among user groups, mitigation efforts (i.e. designated times of use, limited access and reassessment of safety zones) can be implemented to ensure that the proposed action will not have significant impacts to other user groups.

Summary of Impacts

On the refuge there would be an increased number of species allowed to be hunted. Refuge staff will work closely with our state partners to offer mentor hunt opportunities as well as other targeted demographic hunts with the objective of assisting with their R3 (recruit, retrain, reactivate) efforts. The challenge of balancing multiple consumptive and non-consumptive uses all while supporting the conservation of natural resources will persist. However, refuge hunting measures and periodic assessments would allow adjustments in hunt activities.

Because of the regulatory process for harvest management in place within the FWS, the setting of hunting seasons largely outside of the breeding seasons of resident and migratory wildlife, the ability of individual refuge hunt programs to adapt refuge-specific hunting regulations to changing local conditions, and the wide geographic separation of individual refuges, we anticipate no adverse effects on resident wildlife, migratory birds, and non-hunted wildlife of by use of hunting on the refuge.

Long-term Impacts

The best available science suggests that where lead ammunition use is authorized, the impacts from direct ingestion are less than significant at the population level (AFWA 2018). Biomagnification occurs when harmful substances, such as pesticides or heavy metals, accumulate at higher concentrations as they move up the food chain. Food chain biomagnification, except for the direct ingestion of lead residues, is negligible (Behan et al. 1979; Eisler 1988; Wong et al. 1978). Although lead is a known potent neurotoxin (Eisler 1988), use of lead ammunition for hunting is not expected to have meaningful impacts to wildlife population health on the refuge, in relation to the

background rate of residual lead into the environment from hunting activities at large.

Population-level estimates of lead exposure and impacts on raptors are available from a number of studies. The Raptor Rehabilitation Program at the College of Veterinary Medicine at Washington State University found that 48% of bald eagles and 62% of golden eagles tested had blood lead levels considered toxic by current standards (Stauber et al. 2010). Of the bald and golden eagles with toxic lead levels, 91% of bald eagles and 58% of golden eagles were admitted to the rehabilitation facility after the end of the general deer and elk hunting seasons in December (Stauber et al. 2010). Sampling of free-flying individuals is more representative of lead levels in the eagle population rather than those found debilitated, moribund, or dead (Harmata and Restani 2013). Though recent modeling has indicated that lead poisoning suppresses population growth in eagles, it has not led to population declines (Slabe et al. 2022). NatureServe (<https://explorer.natureserve.org>) currently lists both golden eagles and bald eagles as secure populations.

Public Review and Comment

The draft CD was available for public review and comment for 30 days from May 27, 2026 to June 26, 2026. The public was made aware of this comment opportunity through a press release and social media posting. Federally recognized tribes were contacted on January 9, 2026 to comment on proposed hunting rule changes. No comments were received. Coordination with the State of Virginia (Virginia Department of Wildlife Resources) occurred in May 2026 and a response was received on June 25, 2026. A hard copy of this document was posted at the Eastern Virginia Rivers National Wildlife Refuge Complex Headquarters at 336 Wilna Road Warsaw, Virginia 22572. It was made available electronically on the refuge website: www.fws.gov/refuge/james-river.

A summary of public comments received as part of the 2026-2027 Hunting and Fishing Rulemaking process can be found in the Eastern Virginia Rivers NWRC specific categorical exclusion.

Determination

Is the use compatible?

Yes

Stipulations Necessary to Ensure Compatibility

To ensure compatibility with the refuge's purpose and the Refuge System mission,

hunting can occur at the refuge in accordance with state and federal regulations and special refuge-specific regulations (50 CFR 32.38) 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 and impacts on wildlife species will be monitored and potentially modified or eliminated if any of the program's components are found not compatible. Adherence to the regulations, as detailed in the 2026 Hunting and Recreational Fishing Plan and associated hunt-specific documents, will ensure compatibility with the purpose for which the refuge was established. The following stipulations are necessary to ensure compatibility:

- Dogs are only allowed on refuge lands/waters as associated with approved waterfowl hunting programs. Dogs are prohibited for the pursuit of other game and training on refuge lands.
- Vehicles (cars and boats) are allowed only on designated locations/roads as indicated on the refuge map. Vehicles must be parked in a manner to allow passage by other vehicles along roads and through gates. ATVs/UTVs and trailers are prohibited.
- We require that hunters using a rifle or muzzleloader must hunt from a stand elevated ten feet (three meters) or more above the ground in accordance with the local firearms ordinance.
- We only allow portable tree stands and blinds for deer hunting. You must remove any tree stand at the end of the hunt day. No damage to trees will be allowed.
- Where lands fall within the eagle focal area, hunting is prohibited after December 14 to prevent disturbance to bald eagles during nest initiation and incubation. (USFWS 2018).
- We recommend that hunters using lead ammunition remove carcasses and gut piles from the refuge when they have a successful take of a hunted species.

Justification

In view of the above and with the provided stipulations implemented, this use has been determined to be compatible at James River National Wildlife Refuge. Hunting is one of the six priority wildlife-dependent recreational uses identified in the National Wildlife Refuge System Improvement Act of 1997. As a priority use, the U.S. Fish and Wildlife Service directs us to provide recreational hunting opportunities when compatible with the FWS's mission and the original purpose of the refuge as a resting

and wintering area for migrating waterfowl and other migratory birds. Hunting, as outlined in this compatibility determination, would not conflict with the national policy to maintain the biological diversity, integrity, and environmental health of the refuge. Based on available science and best professional judgment, the FWS has determined that hunting at James River National Wildlife Refuge, in accordance with the stipulations provided here, would not materially interfere with or detract from the fulfillment of the National Wildlife Refuge System mission or the purpose of the refuge. Hunting inherently provides visitors with education of native wildlife and habitat while fostering an appreciation for the Refuge System's lands and waterways.

Signature of Determination

MARCIE
KAPSCH

Digitally signed by
MARCIE KAPSCH
Date: 2026.08.20
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Refuge Manager Signature and Date

Signature of Concurrence

MARCIA
PRADINES LONG

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PRADINES LONG
Date: 2026.08.21 09:43:30
-04'00'

Refuge Chief, Northeast Region Signature and Date

Mandatory Reevaluation Date

2041

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Compatibility Determination

Title

Compatibility Determination for hunting at Plum Tree Island National Wildlife Refuge

Refuge Use Category

Hunting

Refuge Use Type(s)

Hunting of waterfowl

Refuge

Plum Tree Island National Wildlife Refuge

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

Plum Tree Island National Wildlife Refuge (NWR) was established in 1972 under authority of the Migratory Bird Conservation Act (16 U.S.C. § 715d), the Fish and Wildlife Act of 1956 (16 U.S.C. 742f(a)(4) and (b)(1)), and the Transfer of Certain Real Property for Wildlife, or other Purposes (16 U.S.C. 667b). The refuge purposes from that statutory authorities are:

“...for use as an inviolate sanctuary, or for any other management purpose, for migratory birds” (Migratory Bird Conservation Act, 16 U.S.C. § 715d));

“...for the development, advancement, management, conservation, and protection of fish and wildlife resources...” (Fish and Wildlife Act of 1956, 16 U.S.C. 742f(a)(4)); and

with “... particular value in carrying out the national migratory bird management program” (16 U.S.C. 667b).

National Wildlife Refuge System Mission

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

Description of Use

Is this an existing use?

Yes.

This compatibility determination (CD) reevaluates and replaces the 2021 CD for Hunting. The use is consistent with the 2021 Hunting and Recreational Fishing Plan and associated Environmental Assessment (EA) and Finding of No Significant Impact (2021). The previous 2021 CD was released with the draft hunt plan and EA for public review and comment from April 9 through July 6, 2021. A total of 20 unique commentors offered input to the refuge. The agency responded to those comments in the Finding of No Significant Impact.

This use is being reevaluated due to proposed changes to the refuge's hunt program as described in the 2026 Hunting and Fishing Plan, Environmental Action Statement, and Categorical Exclusion.

What is the use?

Hunting permitted under this compatibility determination includes only waterfowl hunting. Waterfowl hunting includes mergansers, ducks, coots, Atlantic brant, Canada goose, and light goose.

Is the use a priority public use?

Yes

Where would the use be conducted?

Plum Tree Island NWR is a salt marsh island located in the Lower Chesapeake Bay (See Figure 3 of the 2026 Hunting and Fishing Plan). There are no roads, modern facilities, electricity, potable water, phones, or mail services on the refuge. The bulk of the refuge is land formerly used as a bombing range by the Department of Defense. The only portion of Plum Tree Island that was not formerly used as a bombing range is Cow Island, where waterfowl hunting has historically been allowed. The refuge's waterfowl hunt will continue to occur on Cow Island in three blinds. The FWS will make a reasonable effort to allow hunters access to all portions of the hunt areas, and provide safe, quality hunting opportunities.

When would the use be conducted?

Hunting will be conducted in accordance with federal and state regulations. In cooperation with the state, we may adjust hunt season dates and bag limits in the future to be more restrictive than state regulations as needed to achieve wildlife population levels consistent with refuge goals.

Only hunting for migratory game birds (waterfowl) would be permitted on Plum Tree

Island. This would include duck, coot, merganser, brant, dark goose, and light goose. The season will occur during the second and third segments of state-defined seasons.

How would the use be conducted?

To ensure a quality hunt and visitor and staff safety, all hunting activities are in accordance with federal and state regulations, subject to refuge-specific regulations. 50 CFR contains the federal regulations pertaining to the National Wildlife Refuge System Administration Act. State regulations, such as seasons, bag limits, and general methods of take, are published annually in the Virginia Hunting and Trapping Digest. Trapping is not considered a method of take as defined in this compatibility determination and is evaluated through a separate compatibility determination. The refuge manager may, upon annual review of the hunting program, impose further restrictions on hunting, recommend that the refuge be closed to hunting, or further liberalize hunting regulations up to the limits of state regulations. We will restrict hunting if it becomes inconsistent with other priority refuge programs or endangers refuge resources or public safety.

General information will be available in hunting brochures and refuge maps, located at the Complex headquarters. Maps will show refuge trails, public use areas, closed areas, and approved access roads that are clearly defined. Hunters can address questions to refuge staff by calling, writing, e-mailing, or visiting the Complex headquarters in Warsaw, Virginia. Signs alerting the visiting public to educate themselves of the timing of hunting seasons will be posted at the refuge office and at access points and kiosks. Advance notification of hunting opportunities will allow hunters to prepare, plan, and scout, which ultimately improves the quality of their hunting experiences. Whenever possible, the refuges will designate scouting days prior to any hunting to provide hunters an opportunity to scout the refuge units, thus becoming more familiar with the unit, habitats, refuge boundaries and facilities.

Waterfowl hunting will only be permitted from three blind locations. Bag limits for waterfowl will coincide with the appropriate state regulations. The use of retrieving dogs for waterfowl hunting is encouraged; however, dogs must be under the hunter's control at all times with no more than two dogs per blind site. Non-toxic shot is required for hunting waterfowl under both Virginia regulations and federal hunting regulations (4VAC15-260-140 and 50 CFR 20.21(j), respectively).

Rules, regulations, and conditions of the hunt will be posted in the months prior to the hunt season on refuge website, refuge kiosk, and other publications. Hunters would need to attain all other applicable local, state and/or federal licenses, permits, or stamps in accordance with local, state, and federal laws. Additional details on refuge-specific regulations and procedures can be found in the Hunting and Fishing Plan.

Non-toxic ammunition is required for migratory bird hunting.

Why is this use being proposed or reevaluated?

Hunting is one of the priority public uses defined by the Refuge System Administration Act of 1966, as amended by the Refuge System Improvement Act of 1997 (Public Law 105-57). Department of the Interior Secretarial Order 3356 (September 15, 2017) emphasized identifying opportunities to increase outdoor recreation opportunities for all Americans, including opportunities to hunt and fish. This legitimate and appropriate use of a national wildlife refuge is generally considered compatible, as long as it does not materially interfere with or detract from the fulfillment of the Refuge System mission or the purposes of the Complex.

Additionally expanding hunting opportunities and aligning regulations with state agencies implements Secretarial Order (S.O.) 3347 Conservation Stewardship and Outdoor Recreation, S.O. 3356 Hunting, Fishing, Recreational Shooting, and Wildlife Conservation Opportunities and Coordination with States, Tribes, and Territories, and S. O. 3447: Expanding Hunting and Fishing Access, Removing Unnecessary Barriers, and Ensuring Consistency Across the Department of Interior Lands and Water. The hunt program is administered in accordance with sound wildlife management principles and the utmost concern for public safety.

Availability of Resources

To comply with the Refuge Recreation Act (Public Law 87-714) and Refuge Improvement Act (Public Law 105-57), the Refuge Manager must determine whether sufficient resources—financial, staffing, facilities, or other infrastructure—are available to support the proposed use without materially interfering with the refuge purpose(s) or the mission of the National Wildlife Refuge System. This determination should be informed by a review of current capacity and, where applicable, the refuge's Comprehensive Conservation Plan (CCP).

Assessment of current resources and capacity

The Refuge Manager will use sound professional judgment to determine the funding and staffing needed to perform the functions necessary to ensure compatibility. These functions include trail, parking lot, and road maintenance, developing annual refuge hunting regulations factsheets, updating the website, inventory and monitoring of game species, and reporting. If the refuge does not have the resources to carry out these functions, compatibility of the refuge use may be reevaluated and discontinued at that time.

The resources needed to administer this use are currently available. However, adequate levels of refuge staffing, funding, and facilities are necessary to administer this use in a manner that ensures continued compatibility (603 FW2 2.11(A.2)). Therefore, a reduction in any of these resources may prompt the Refuge Manager to reevaluate the compatibility of this use, and the Refuge Manager may decide to modify or discontinue the use.

We estimate that the recurring annual expense to administer this use is \$1,450. This includes the cost of blind maintenance and staff time for developing materials and monitoring the use.

Impacts of changes to resources and capacity

The availability of resources is subject to change and the level of use provided may vary based on current staffing, partner support, funding, or infrastructure conditions. Costs may increase over time, in relation to changes in the costs for equipment, maintaining facilities, etc. A substantial increase to the number of requests may also create the need for additional resources to administer the use. The Refuge Manager will use sound professional judgment in evaluating whether the refuge or its partners can develop, operate, and maintain the use in a compatible manner.

For priority public uses—including hunting, fishing, wildlife observation and photography, or environmental education and interpretation—if resource conditions shift such that the refuge can no longer sustain the use in a compatible manner, the Refuge Manager may temporarily modify or suspend the use pursuant to 50 CFR 25.21(E) for a period of up to one year). If it becomes apparent that insufficient resources will be sustained into the long-term, the Refuge Manager may reevaluate the compatibility of the use and discontinue the use if necessary. The public will be notified of any changes to refuge uses, including temporary modification or suspension, reevaluation of compatibility and/or discontinuing of refuge uses.

Anticipated Impacts of the Use

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

Hunting was evaluated in the environmental assessment associated with the 2021 Hunting and Recreational Fishing Plan (USFWS 2021). Hunting has been found not to significantly impact the human environment through the Finding of No Significant Impact. Additionally, hunting is being evaluated through the draft 2026 Categorical Exclusion. The analysis below is supplemental to the previous environmental effects described in those documents. The effects and impacts of the proposed use to refuge resources, whether adverse or beneficial, are those that are reasonably foreseeable and have a reasonably close causal relationship to the proposed use. This CD includes

the written analyses of the environmental consequences on an affected resource only when the impacts on that resource could materially interfere or detract from the purpose for which a refuge was established and the mission of the Refuge System.

Hunting has occurred on some refuge lands for many years with no discernible adverse impacts, or significant conflicts with other priority public uses. Hunting provides wildlife-dependent recreational opportunities that can foster a better appreciation and more complete understanding of wildlife and habitats associated with the Chesapeake Bay ecosystem, which could translate into stronger support for wildlife conservation, the refuge, the Refuge System, and the FWS.

Short-term impacts

Water Resources and Wetlands

Hydrology impacts would be minimal and primarily result from use of roads and trails. However, hunting is expected to have minimal effects as hunters are generally dispersed, which reduces repeated erosive actions on soils. Additionally, hunters will have designated parking areas which will help prevent increased ruts in roads and water runoff pathway disturbance. Parking outside of designated areas has been an issue in the past necessitating the installation of additional signs to direct Refuge hunters/visitors.

It is anticipated that hunting on the refuge will have minor impacts to wetlands. Big game and small game hunting is limited to upland habitats. Waterfowl hunting would be the only hunt to consistently use wetlands and will be restricted to designated stationary hunt blind or platform locations. The use of no more than two retrieval dogs per hunting blind/platform will further mitigate wetland disturbance.

Wildlife

Waterfowl and other migratory birds

Migratory game birds are managed on a flyway basis and hunting regulations are established in each state based on flyway data. Federal and state regulations would apply in the refuge waterfowl hunt. Waterfowl hunter numbers in Virginia have been generally stable since the late 1990s. Since 1999, the Harvest Information Program (HIP) has been used to estimate hunter effort and harvest. The average number of duck and goose hunters over the past five (5) years (2020-2024), as measured by HIP, was 16,300 and 10,360 respectively for a total of 19,020 waterfowl hunters on average in Virginia. The state average hunter harvest per season is 8.2 ducks and 3.4 geese.

Waterfowl hunting will only occur from three (3) stationary blind or platforms with a maximum of three (3) hunters per blind or platform. The season will include second

and third segments based on state-defined seasons. Bag limits for waterfowl will coincide with the appropriate federal and state regulations. The use of retrieving dogs for waterfowl hunting is encouraged; however, the dogs must be under the hunter's control at all times, and no more than two dogs are permitted per blind or platform (no more than one dog per hunter).

Additionally, fall is the season for bird migration, and hunting may disturb their resting and foraging during this critical time. Migrating and wintering birds may be foraging and roosting in upland and wetland habitats. Hunting activity may cause these birds to unnecessarily take flight, expending energy resources when food resources are limited. Because this use is not concentrated in space or time (it occurs on select days throughout the refuge during designated times within the hunting season), the disturbance effects on wildlife that are using the refuge during fall and winter are not expected to be significant. In addition to direct mortality, hunting could result in some short-term redistribution due to disturbance, but impacts are expected to be minimal (Tamisier et al. 2003).

We will limit human disturbance in the majority of the refuge by only allowing waterfowl hunting to occur at designated platforms. On non-hunting days, waterfowl can rest, feed, and move throughout the entire refuge without the influence of human disturbance. Shooting impacts may include noise disturbance and take. Noise can have impacts beyond the hunt areas and take has associated risk of being incidental or accidental take. Larkin et al. (1996) conducted a literature review finding firearm blasts as being likely to drive roosting waterfowl from preferred habitat.

Hunting waterfowl on the refuge would make the birds more skittish and prone to disturbance, reduce the amount of time they spend foraging and resting, and alter their habitat usage patterns (Raveling 1979, Owen 1973, White-Robinson 1982, Madsen 1985, Bartelt 1987) and the use of dogs for retrieval could increase these impacts. While free-roaming dogs can be potential disturbance sources; the brevity of their presence as well as infrequent disturbance will be less impactful than the disturbance caused by the hunters (Bell and Owen 1990). The dogs will be trained for retrieval only (versus flushing) which further mitigates possible disturbance. In addition, dogs are required to be under the control of their owners and will be in the blind with the hunters. Their disturbance to vegetation is also expected to be minimal as most emergent and/or submerged aquatic vegetation will be dormant and to retrieve the waterfowl dogs mostly swim and/or are partially supported in the water.

Non-target species

Hunting can have impacts on both target and non-target species. These impacts include: direct mortality of individuals, changes in wildlife behavior, changes in wildlife population structure, dynamics, and distribution patterns, and disturbance

from noise and hunters walking on- and off-trail (Cole and Knight 1990, Cole 1990, Bell and Austin 1985). However, under the anticipated levels of use these impacts are expected to be minimal. Hunters tend not to disperse very far from parking areas and roads, which leaves large areas of refuge land undisturbed. Additionally, the timing of the hunt is such that many native wildlife species are not present or dormant at the time of the hunt and, therefore, unlikely to be affected. Impacts on amphibians and reptiles are expected to be negligible because these species are preparing or already hibernating or in torpor (dormancy) during the hunt season on the refuge (typically occurring mid-November through mid-December). Impacts to invertebrates such as butterflies, moths, other insects, and spiders are expected to be negligible. Invertebrates are not active during the majority of the hunting seasons and would have few interactions with hunters during the hunting season. However, wildlife are impacted by human presence differently where birds avoided places where people were present and when visitor activity was high (Burger 1981, Klein et al. 1995, Burger and Gochfeld 1998) while mammalian use of trails in eastern forests was not impacted by hikers (Kays et al. 2017). Additionally, noise, caused by visitor activity resulted in increased levels of disturbance of wildlife regardless of group size (Burger 1986, Klein 1993, Burger and Gochfeld 1998).

The hunt program would have minor, direct, short-term impacts on non-target birds because the hunting season occurs outside of the breeding and migratory seasons for shorebirds and waterbirds. Impacts would be minimized by enforcement of state and federal regulations, including the use of non-toxic shot for waterfowl hunting (4VAC15-260-140 and 50 CFR 20.21, respectively), and refuge-specific regulations that limit the number of public hunt days, hunt locations, hunting party composition, and hunting practices (50 CFR 32.65).

Threatened and Endangered Species and Other Special Status Species

Federally endangered or threatened species or special status species that may be found on the refuge include Atlantic sturgeon, Northern long-eared bat, tri-colored bat, Eastern black rail, Northeastern beach tiger beetle, monarch butterfly and bald eagle. The detailed Intra-Service Section 7 Evaluation can be found in Appendix J. A summary of potential impacts is included here.

Atlantic sturgeon

The Chesapeake Bay Atlantic sturgeon population is listed as federally endangered. The Atlantic sturgeon is present around Plum Tree Island NWR. Because waterfowl hunting will occur only from designated blinds on the refuge, no impacts to Atlantic sturgeon are expected from the hunt program.

Northern long-eared bat and tri-colored bat

Northern long-eared bats and tri-colored bats primarily use mines and caves in the

winter to hibernate in the western part of the state and use upland forests to forage and roost throughout the rest of the year. It is highly unlikely that bats will be present on the refuge during waterfowl hunting season because they will have left for their hibernaculum. Therefore, no impacts on bats from the hunting program are expected.

Eastern black rail

The Eastern black rail is a sparrow-sized, secretive marsh bird. Eastern black rail habitat can be tidally or non-tidally influenced, and range in salinity from salt to brackish to fresh but must be densely vegetated. This species may occur on marshes on Plum Tree Island NWR (USFWS 2020), but there are no known occurrences of overwintering black rails in the area. Therefore, it is unlikely that the species will be disturbed by hunting activities.

Northeastern beach tiger beetle

Northeastern beach tiger beetles are found on Plum Tree Island NWR on long, wide, dynamic beaches with little human activity. Adult beetles are present from June through September. Larvae are present but buried in the sand year-round. None of the blinds designated for hunting are near suitable beetle habitat, so no impacts from hunting are expected because hunters will not be walking through or otherwise disturbing the sandy beach habitat where the larvae will be buried.

Monarch butterfly

Monarch butterflies use the refuge habitats during spring and fall migration, as well as during the spring and summer breeding season. Hunters will be present mostly in wetland areas and will hunt from blinds, where monarchs and their nectaring plants generally do not occur. Monarchs will not be present on the refuge during waterfowl hunting season, so they will not be directly disturbed by hunting activities.

Bald Eagle

After four decades of protection under the Endangered Species Act, the bald eagle was officially removed from the federal list of endangered and threatened wildlife in 2007. However, they are still protected under the Bald and Golden Eagle Act (Eagle Act) and the Migratory Bird Treaty Act. The FWS considered potential impacts to eagles under the Refuge Improvement Act in this CD and under NEPA in the associated 2026 CatEx. Permitting public access to any waterfront or marsh managed by the refuge holds the possibility of affecting bald eagles, which would be overwintering during waterfowl hunting season. Impacts may either be displacement or temporary disturbance depending on extent of use of a given site by visitors and eagles. As trees mature and forest riparian buffers are improved, sites with low concentrations will likely increase in importance to bald eagles. We will avoid potential adverse impacts to bald eagles by strictly following the management guidelines developed in consultation with the Virginia Department of Wildlife

Resources and the Center for Conservation Biology. These include sight and distance setbacks from nests and concentration areas, and time-of-year restrictions.

Visitors and Users

The refuge is primarily open to all six of the Refuge System's priority public uses (hunting, fishing, wildlife observation, wildlife photography, environmental education and environmental interpretation). Hunt blinds are used for other priority uses outside of the hunting season. This separation of seasons reduces conflicts among the different user groups. If conflicts arise among user groups, mitigation efforts (i.e. designated times of use, limited access and reassessment of safety zones) can be implemented to ensure that the proposed action will not have significant impacts to other user groups.

Long-term impacts

The refuge hunt program is designed to be sustainable, given relatively stable conditions, particularly because of close coordination with the state. Additionally, the proportion of the refuge's harvest of these species is negligible when compared to local, regional, and statewide populations and harvest. Thus, we anticipate no detrimental, long-term impacts from hunting on waterfowl, non-target wildlife, listed species, abiotic resources, or visitor use and experience on the refuge.

Summary of Impacts

Because of the regulatory process for harvest management in place within the FWS, the setting of hunting seasons largely outside of the breeding seasons of resident and migratory wildlife, the ability of individual refuge hunt programs to adapt refuge-specific hunting regulations to changing local conditions, and the wide geographic separation of individual refuges, we anticipate no adverse effects on resident wildlife, migratory birds, and non-hunted wildlife of by use of hunting on the refuge.

Public Review and Comment

The draft CD was available for public review and comment for 30 days from May 27, 2026 to June 26, 2026. The public was made aware of this comment opportunity through a press release and social media posting. Federally recognized tribes were contacted on January 9, 2026 to comment on proposed hunting rule changes. No comments were received. Coordination with the State of Virginia (Virginia Department of Wildlife Resources) occurred in May 2026 and a response was received on June 25, 2026. A hard copy of this document was posted at the Eastern Virginia Rivers National Wildlife Refuge Complex Headquarters at 336 Wilna Road Warsaw, Virginia 22572. It was made available electronically on the refuge website: www.fws.gov/refuge/plum-tree-island.

A summary of public comments received as part of the 2026-2027 Hunting and Fishing Rulemaking process can be found in the Eastern Virginia Rivers NWRC specific categorical exclusion.

Determination

Is the use compatible?

Yes

Stipulations Necessary to Ensure Compatibility

To ensure compatibility with the refuge's purpose and the Refuge System mission, hunting can occur at the refuge in accordance with state and federal regulations and special refuge-specific regulations (50 CFR 32.38) 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 and impacts on wildlife species will be monitored and potentially modified or eliminated if any of the program's components are found not compatible. Adherence to the regulations, as detailed in the 2026 Hunting and Recreational Fishing Plan and associated hunt-specific documents, will ensure compatibility with the purpose for which the refuge was established. The following stipulations are necessary to ensure compatibility:

- Non-toxic ammunition is required for migratory bird hunting (ducks, geese, brant, swans, and coot).
- Waterfowl hunters are prohibited from jump-shooting by foot or boat except for float blind licenses, who can choose to hunt from boat instead of refuge blind, but must be moored at designated refuge blind.
- Waterfowl hunters are required to hunt from a designated refuge blind.
- Goose or duck decoys must be removed at the end of each day's hunt.
- Dogs are only allowed on refuge lands/waters as associated with approved waterfowl hunting programs. Dogs are prohibited for the pursuit of other game and training on refuge lands.
- Boats are allowed to dock on designated locations (the hunt blinds), as indicated on the refuge map.

Justification

In view of the above and with the provided stipulations implemented, this use has been determined to be compatible at Plum Tree Island National Wildlife Refuge. Hunting is one of the six priority wildlife-dependent recreational uses identified in the National Wildlife Refuge System Improvement Act of 1997. As a priority use, the U.S. Fish and Wildlife Service directs us to provide recreational hunting opportunities when compatible with the FWS's mission and the original purpose of the refuge as a resting and wintering area for migrating waterfowl and other migratory birds. Hunting, as outlined in this compatibility determination, would not conflict with the national policy to maintain the biological diversity, integrity, and environmental health of the refuge. Based on available science and best professional judgment, the FWS has determined that hunting at Plum Tree Island National Wildlife Refuge, in accordance with the stipulations provided here, would not materially interfere with or detract from the fulfillment of the National Wildlife Refuge System mission or the purpose of the refuge. Hunting inherently provides visitors with education of native wildlife and habitat while fostering an appreciation for the Refuge System's lands and waterways.

Signature of Determination

MARCIE
KAPSCH

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Refuge Manager Signature and Date

Signature of Concurrence

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Refuge Chief, Northeast Region Signature and Date

Mandatory Reevaluation Date

2041

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Compatibility Determination

Title

Compatibility Determination for hunting at Presquile National Wildlife Refuge

Refuge Use Category

Hunting

Refuge Use Type(s)

Hunting of big game, small game, and furbearers

Refuge

Presquile National Wildlife Refuge

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

Presquile National Wildlife Refuge (NWR) was officially established in 1953 when lands were transferred to the U.S. Government as a gift under the provisions of the will of Mr. A. D. Williams and under the authority of the Migratory Bird Conservation Act and Refuge Recreation Act (16 U.S.C. § 460k-1). The refuge purposes from these statutory authorities are:

“...for use as an inviolate sanctuary, or for any other management purpose, for migratory birds...” (Migratory Bird Conservation Act, as amended [16 U.S.C. 715-715d, 715e, 715f-715r]), and

“...suitable for – (1) incidental fish and wildlife-oriented recreational development, (2) the protection of natural resources, (3) the conservation of endangered species or threatened species...” (Refuge Recreation Act [16 U.S.C § 460k-1).

National Wildlife Refuge System Mission

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

Description of Use

Is this an existing use?

Yes.

This compatibility determination (CD) reevaluates and replaces the 2021 CD for Hunting. The use is consistent with the 2021 Hunting and Recreational Fishing Plan and associated Environmental Assessment (EA) and Finding of No Significant Impact (2021). The previous 2021 CD was released with the draft hunt plan and EA for public review and comment from April 9 through July 6, 2021. A total of twenty (20) unique commentors offered input to the refuge. The agency responded to those comments in the Finding of No Significant Impact.

This use is being reevaluated due to proposed changes to the refuge's hunt program as described in the 2026 Hunting and Fishing Plan, Environmental Action Statement, and Categorical Exclusion. The agency proposes to open 1,229 acres to bobcat, red fox, rabbit, squirrel, groundhog, striped skunk, opossum and raccoon hunting. The agency also proposes adding an additional day of hunting to include an archery only hunt.

The 2021 Hunt Plan required the use of lead-free ammunition for turkey and coyote, effective immediately. The 2021 Hunt Plan also set forth a delayed implementation requirement of lead-free ammunition for white-tailed deer, effective September 1, 2026. The FWS proposes to withdraw the lead-free requirements detailed in the plan, in response to current lack of reasonable and prudent alternatives, and recent directives aimed at reducing regulations (Executive Order (E.O.) 14192, Unleashing Prosperity Through Deregulation, dated January 31, 2025; Secretarial Order (S.O.) 3421, Achieving Prosperity through Deregulation, dated Feb 8, 2025; and S. O. 3447: Expanding Hunting and Fishing Access, Removing Unnecessary Barriers, and Ensuring Consistency Across the Department of Interior Lands and Waters, dated January 7, 2026). The historical, federal nation-wide non-toxic shot requirement for ducks, geese, brant, swans, and coot from 1991 remains in effect (50 CFR 20.21(j)).

What is the use?

Multiple types of hunting are permitted under this compatibility determination, including big game, small game, and furbearers. Hunting of big game includes deer and turkey. Hunting of upland game includes groundhog, rabbit, gray squirrel, bobcat, coyote, red fox, opossum, raccoon, and striped skunk.

Is the use a priority public use?

Yes

Where would the use be conducted?

Hunting for big game, small game and furbearers will be permitted across 1,229 acres of the 1,329-acre island refuge (See Figure 4 in the 2026 Hunting and Fishing Plan). A no hunting zone of approximately 100 acres has been established to ensure safety on and around the refuge. Approximately 300 acres of mesic and successional forests and grassland habitat are open to hunting. The remaining 929 acres open to hunting include marsh and swamp habitat.

The FWS will make a reasonable effort to allow hunters access to all portions of the hunt areas, and provide safe, quality hunting opportunities. However, we may have to close for hunting if unsafe conditions arise or if potential impacts to wildlife resources occur.

When would the use be conducted?

Hunting will be conducted in accordance with federal and state regulations. In cooperation with the state, we may adjust hunt season dates in the future to be more restrictive than state regulations as needed to achieve wildlife population levels consistent with refuge goals.

Deer

White-tailed deer hunting will occur on a one-day archery hunt and a three-day shotgun deer hunt in accordance with state regulations. All hunting hours will follow state regulations.

Turkey

Turkey hunting will be allowed during the one-day archery hunt and the three-day shotgun hunts scheduled for white-tailed deer when season dates overlap. The seasons may change as the state regulations change. All hunting hours will follow state regulations.

Upland game

Bobcat, coyote, red fox, opossum, raccoon, and striped skunk hunting will occur in accordance with state seasons and regulations by species but will follow deer hunt days and method of take seasons. Hunting will take place Saturdays and Sundays from October 1 through the first weekend in January. These are general season periods and may change as the State of Virginia regulations change. All hunting hours will follow state regulations.

Groundhog, gray squirrel and rabbit hunting will occur in designated units on Saturdays and Sundays from the second weekend of January to February 28th. All state legal methods of take are permitted during this time. These are general season periods and may change as the state regulations change. The refuge does not allow

night hunting so hunting hours will be restricted to half an hour before sunrise and half an hour after sunset.

Coyote, turkey, red fox, rabbit, squirrel, groundhog, striped skunk, opossum and raccoon may also be taken during the three-day deer hunt, one-day archery deer hunt and proposed mentor-led hunt.

How would the use be conducted?

To ensure a quality hunt, and visitor and staff safety, all hunting activities are in accordance with federal and state regulations, subject to refuge-specific regulations. 50 CFR contains the federal regulations pertaining to the National Wildlife Refuge System Administration Act. State regulations, such as seasons, bag limits, and general methods of take, are published annually in the Virginia Hunting and Trapping Digest. Trapping is not considered a method of take as defined in this compatibility determination and is evaluated through a separate compatibility determination. The Refuge Manager may, upon annual review of the hunting program, impose further restrictions on hunting, recommend that the refuge be closed to hunting, or further liberalize hunting regulations up to the limits of state regulations. We will restrict hunting if it becomes inconsistent with other priority refuge programs or endangers refuge resources or public safety.

General information will be available in hunting brochures and refuge maps, located at the Eastern Virginia Rivers National Wildlife Refuge Complex (Complex) headquarters. Maps will show refuge trails, public use areas, closed areas, and approved access roads that are clearly defined. Hunters can address questions to refuge staff by calling, writing, e-mailing, or visiting the Complex headquarters in Warsaw, Virginia. Signs alerting the visiting public to educate themselves of the timing of hunting seasons will be posted at the access points and kiosks. Advance notification of hunting opportunities will allow hunters to prepare, plan, and scout, which ultimately improves the quality of their hunting experiences. Whenever possible, the refuges will designate scouting days prior to any hunting to provide hunters an opportunity to scout the refuge units, thus becoming more familiar with the unit, habitats, refuge boundaries and facilities.

The three-day, white-tailed deer shotgun hunt is a quota hunt, administered by a third-party contractor. A maximum of 102 hunters (34 per day) may participate.

Only portable tree stands and blinds will be allowed. Hunters may hunt from the ground or a portable tree stand. Tree stands and ground blinds must be removed at the end of each day. No permanent hunting stands/blinds may be constructed on refuge lands. All access points will be delineated on refuge hunt maps and will be included in the annual hunting brochure.

Permits and Fees

Each hunting permit applicant is charged an application and permit fee, except the proposed mentor-led hunts and state youth/apprentice hunts will not require a permit or fee. Quota hunts require a permit fee, which will be retained by the refuge to offset the cost of the hunt. Hunters would need to attain all other applicable local, state and/or federal licenses, permits, or stamps in accordance with local, state, and federal laws. Additional details on refuge-specific regulations and procedures can be found in the Hunting and Fishing Plan.

Lead-free Ammunition

The 2021 Hunt Plan required the use of lead-free ammunition for turkey and coyote, effective immediately. The 2021 Hunt Plan also set forth a delayed implementation requirement of lead-free ammunition for white-tailed deer, effective September 1, 2026. The FWS proposes to withdraw the lead-free requirements detailed in the plan, in response to current lack of reasonable and prudent alternatives, and recent directives aimed at reducing regulations (E.O. 14192, S.O. 3421, and S. O. 3447). The historical, federal nation-wide non-toxic shot requirement for ducks, geese, brant, swans, and coot from 1991 remains in effect (50 CFR 20.21(j)).

Specialty/Mentor-Led Hunts

In addition to the public hunts, based on interest a state-certified mentor-led deer hunt may occur one day during the fall shotgun season. This hunt will have hunting participants limited to ten (10) slots (for mentor and mentee). The populations targeted for these special hunts are mentor-led hunters, youth hunters, hunters with disabilities, non-male hunters, veterans, and senior hunters.

Why is this use being proposed or reevaluated?

Hunting is one of the priority public uses defined by the Refuge System Administration Act of 1966, as amended by the Refuge System Improvement Act of 1997 (Public Law 105-57). Department of the Interior Secretarial Order 3356 (September 15, 2017) emphasized identifying opportunities to increase outdoor recreation opportunities for all Americans, including opportunities to hunt and fish. This legitimate and appropriate use of a national wildlife refuge is generally considered compatible, as long as it does not materially interfere with or detract from the fulfillment of the Refuge System mission or the purposes of the refuge.

Per FWS Policy 603 FW 2.11H. 1 “We will reevaluate compatibility determinations for existing wildlife-dependent recreational uses when conditions under which the use is permitted change significantly, or if there is significant new information regarding the effects of the use, or concurrently with the preparation or revision of a comprehensive conservation plan, or at least every fifteen (15) years, whichever is earlier...” In this instance, rescinding the lead-free ammunition requirement that was implemented in the 2021 Hunting and Fishing Plan necessitated reevaluation of

compatibility for this use.

Additionally expanding hunting opportunities and aligning regulations with state agencies implements S.O. 3347 Conservation Stewardship and Outdoor Recreation, S.O. 3356 Hunting, Fishing, Recreational Shooting, and Wildlife Conservation Opportunities and Coordination with States, Tribes, and Territories, and the 2025 Director's Memo for an Annual Update for the 2026-2027 Hunting and Sport Fishing Seasons on National Wildlife refuges and National Fish Hatcheries. The hunt program is administered in accordance with sound wildlife management principles and the utmost concern for public safety.

Availability of Resources

To comply with the Refuge Recreation Act (Public Law 87-714) and Refuge Improvement Act (Public Law 105-57), the Refuge Manager must determine whether sufficient resources—financial, staffing, facilities, or other infrastructure—are available to support the proposed use without materially interfering with the refuge purpose(s) or the mission of the National Wildlife Refuge System. This determination should be informed by a review of current capacity and, where applicable, the refuge's Comprehensive Conservation Plan (CCP).

Assessment of current resources and capacity

The Refuge Manager will use sound professional judgment to determine the funding and staffing needed to perform the functions necessary to ensure compatibility. These functions include trail, parking lot, and road maintenance, developing annual refuge hunting regulations factsheets, updating the website, inventory and monitoring of game species, and reporting. If the refuge does not have the resources to carry out these functions, compatibility of the refuge use may be reevaluated and discontinued at that time.

The resources needed to administer this use are currently available. However, adequate levels of refuge staffing, funding, and facilities are necessary to administer this use in a manner that ensures continued compatibility (603 FW2 2.11(A.2)). Therefore, a reduction in any of these resources may prompt the Refuge Manager to reevaluate the compatibility of this use, and the Refuge Manager may decide to modify or discontinue the use.

We estimate that the recurring annual expense to administer this use is \$1,100. This includes the cost of maintenance (boat landing, boardwalks, trails) and staff time for developing materials and monitoring the use.

Impacts of changes to resources and capacity

The availability of resources is subject to change and the level of use provided may vary based on current staffing, partner support, funding, or infrastructure conditions. Costs may increase over time, in relation to changes in the costs for equipment, maintaining facilities, etc. A substantial increase to the number of requests may also create the need for additional resources to administer the use. The Refuge Manager will use sound professional judgment in evaluating whether the refuge or its partners can develop, operate, and maintain the use in a compatible manner.

For priority public uses—including hunting, fishing, wildlife observation and photography, or environmental education and interpretation—if resource conditions shift such that the refuge can no longer sustain the use in a compatible manner, the Refuge Manager may temporarily modify or suspend the use pursuant to 50 CFR 25.21(E) for a period of up to one year). If it becomes apparent that insufficient resources will be sustained into the long-term, the Refuge Manager may reevaluate the compatibility of the use and discontinue the use if necessary. The public will be notified of any changes to refuge uses, including temporary modification or suspension, reevaluation of compatibility and/or discontinuing of refuge uses.

Anticipated Impacts of the Use

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

Hunting was evaluated in the environmental assessment associated with the 2021 Hunting and Recreational Fishing Plan (USFWS 2021). Hunting has been found not to significantly impact the human environment through the Finding of No Significant Impact. Additionally, hunting is being evaluated through the draft 2026 Categorical Exclusion. The analysis below is supplemental to the previous environmental effects described in those documents. The effects and impacts of the proposed use to refuge resources, whether adverse or beneficial, are those that are reasonably foreseeable and have a reasonably close causal relationship to the proposed use. This CD includes the written analyses of the environmental consequences on an affected resource only when the impacts on that resource could materially interfere or detract from the purpose for which a refuge was established and the mission of the Refuge System.

Hunting has occurred on some refuge lands for many years with no discernible adverse impacts, or significant conflicts with other priority public uses. Hunting provides wildlife-dependent recreational opportunities that can foster a better appreciation and more complete understanding of wildlife and habitats associated with the Chesapeake Bay ecosystem, which could translate into stronger support for wildlife conservation, the refuge, the Refuge System, and the FWS.

To the best of our knowledge, there are negligible impacts to wildlife populations,

including special status species, or habitats from lead ammunition. Hunting is not expected to meaningfully affect wildlife population health on the refuge, in relation to the background rate of residual lead into the environment from hunting activities at large. The best available science suggests that where lead ammunition use is authorized, impacts to wildlife from direct ingestion are observable but would not approach a threshold of significance at the population level (AFWA 2018), while food chain biomagnification is negligible (Behan et al. 1979; Eisler 1988; Wong et al. 1978).

The refuge continues to educate hunters on lead-free alternatives and encourage voluntary use of lead-free ammunition for all hunts. The refuge also educates hunters on best management practices (e.g., removal of carcass when possible) to reduce the impact of continued use of lead ammunition on non-target wildlife during refuge hunts. The nature of hunting on the refuge reduces the potential that wildlife will be at great risk from lead exposure, especially given the large huntable area, multiple access sites, and the small number of hunters. The number of individuals of a species that may be exposed to toxic amounts of lead are so small that we do not anticipate any long-term population level effects to wildlife residing on or migrating through the refuge. For more information on the effects of lead as a result of hunting on wildlife, including threatened, endangered, and special status species, habitat, and the human environment, see the 2021 Eastern Virginia Rivers National Wildlife Refuge Complex Hunting and Recreational Fishing Plan and associated Environmental Assessment.

Short-term impacts

Vegetation and Soils

Repeated visitation to any particular locale at the refuge would continue to cause minor site-specific damage to vegetation and soils. Accidental introduction of invasive plants, pathogens, or exotic invertebrates attached to vehicles, shoes, or clothing is another source of direct minor impacts on vegetation. In places where unmarked paths are created by hunters, little used pathways will retain their dominant vegetation species, but on medium-use pathways some plant species will be replaced, and heavily used paths will often contain invasive species (Liddle and Scorgie 1980).

Using staff observations of past impacts, hunting is expected to have negligible adverse impacts on vegetation in the short and long-term. Disturbance to vegetation may occur when hunters travel off trail through upland habitats. We expect negligible impacts to vegetation would result because the hunters disperse themselves or are assigned to designated hunt locations across the refuges. Hunters typically only travel as far as needed to find a desirable hunting location. Furthermore, most vegetative species will have already undergone senescence or become dormant during when much of the hunting season occurs.

Positive effects on the vegetation would result indirectly from a reduction in the deer population. The impacts of dense deer populations on forest regeneration and the composition and diversity of the herbaceous understory have been well-documented (Tierson et al. 1966, Tilghman 1989). Allowing public deer hunting to continue on the refuge would maintain the habitat as it is now and prevent degradation due to overbrowsing. Well-managed hunting can effectively control deer and produce dramatic changes in the forest vegetation (Behrend et al. 1970). The impact of deer hunting on the vegetation would be positive and result in better regeneration of forest canopy species and an increase in the diversity of the herbaceous understory.

In summary, there would be few if any negative impacts from this use on the refuge's vegetation, but there would be beneficial impacts from the decrease of deer browse on the refuge's vegetation due to the decrease in the number of deer on refuge lands.

Water Resources and Wetlands

Hydrology impacts would be minimal and primarily result from use of trails. However, hunting is expected to have minimal effects as hunters are generally dispersed, which reduces repeated erosive actions on soils. All hunting will be via boat access, and no hunters will drive vehicles on the refuge property.

It is anticipated that hunting on the refuge will have minor impacts to wetlands. Most of the big game, small game, and furbearer hunting is limited to upland habitats.

Wildlife

White-tailed deer

Virginia's deer population is estimated to be between 850,000 and 1,000,000 deer and is not at risk of overharvest (VDGIF 2015). The state determines seasons and bag limits based on regional deer harvest data. The state's deer management program regulates deer hunting toward maintaining at moderate to low population densities, in fair to good physical condition, and below the biological carrying capacity of the habitat (VDGIF 2015). High deer densities have been shown to negatively affect plant and animal communities. Therefore, a hunting program would help to facilitate ecological diversity by mitigating the effects of high deer densities. Deer densities, if maintained through regulated hunting, will sustain the native vegetation and forest regeneration associated with the natural communities in those regions. Regulated deer hunting will also maintain a deer herd in good physical condition that staves off malnutrition and disease as well as prevents direct negative impacts to other wildlife and present habitat. For example, heavily browsed habitats (a result of insufficient food for the herd size) have shown to decrease migratory songbird foraging opportunity (deCalesta 1994).

While refuge specific data is unavailable, the average deer take in Virginia is 3 to 5 deer per hunter (Martin 2020). However, due to the over population of deer throughout the counties within our refuge and relatively low number of deer harvested on the refuge, hunting on the refuge is predicted to have minimal adverse impacts on the local population.

Turkey

VADWR estimated that the turkey population was nearly 180,000 individuals in 2014 with increasing populations in all counties encompassing our refuge (VADGIF 2014). Fall turkeys will only be harvested opportunistically during the deer season, which limits hunter impacts during the fall season. Regulated hunting following state seasons and bag limits is not anticipated to have any long-term adverse impacts on local or regional turkey populations.

Birds like turkeys that forage on the ground and use grit to help in digestion, turkey, are at risk of lead exposure through the direct ingestion of spent lead shot (Larsen et al. 2007; Franson et al. 2009; Fisher et al. 2006). Exposure to lead has not broadly declined for game birds where lead shot and ammunition are still commonly used (Haig et al. 2014). Population level impacts to upland birds are not anticipated to occur from removing the lead-free restriction on the refuge.

Upland Game (Bobcat, Coyote, Red fox, Opossum, Raccoon, Striped Skunk, squirrels, rabbit and groundhog)

Upland Game species hunted on the refuge include bobcat, coyote, red fox, opossum, raccoon, striped skunk, squirrels, rabbit and groundhog. Each of these species are common species across the State of Virginia and found on the refuge. Bobcat, coyote, red fox, opossum, raccoon, and striped skunk will be hunted opportunistically during fall deer hunting days. To minimize impact on the refuge habitats and protect safety, hunting with dogs and night hunting is prohibited on the refuge. These species can be hunted by stand hunting only. Each of these species will be hunted within the state set season and following state bag limits. Hunting gray squirrel, eastern cottontail, marsh rabbit and groundhog on the refuge would be in accordance with federal, state and refuge-specific regulations. The state relies on broad scale information to set harvest rates, as these species are common throughout the state. Currently, the bag limits for all types of squirrel and rabbit are 6 per day. Small game hunting is expected to have minimal adverse effects on targeted populations. Winter season general public hunts will occur in designated zone(s). Mentor-led hunts will be designated to specific zones, allowing for enhanced hunter opportunity and safety.

No long-term adverse impacts on local or regional populations of these species are anticipated from this addition. Mentor-led hunts will be designated to specific zones, allowing for enhanced hunter opportunity and safety.

Mammals are primarily exposed to lead through ingestion of lead shot and bullet fragments in carcasses or gut piles left by hunters. Scavengers such as coyotes have exhibited elevated lead blood levels during the fall hunting season (Bedrosian and Craighead 2006, Rogers et al. 2012).

Mortality in mammals due to lead ingestion is not as prevalent as it is in birds. Currently there is limited evidence that demonstrates population-level impacts to mammalian species (AFWA 2018). It is expected that due to feeding behaviors, some mammal species are more likely than some bird species to be exposed to smaller amounts of lead, relative to body mass, but over extended periods of time (Hydeskov et al. 2024). For example, waterfowl are known to pick up large numbers of lead pellets or fishing weights when foraging (Pain et al. 2019), yet most wild mammals would not be exposed to such large amounts of lead at once, as they forage using different methods, particularly carnivores (Hydeskov et al. 2024).

Although lead is a known potent neurotoxin (Eisler 1988), the proposed removal of the lead-free ammunition requirement for hunting is not expected to meaningfully affect wildlife population health on the refuge, in relation to the background rate of residual lead into the environment from hunting activities at large. Also, we expect a low number of additional hunters as a result of these proposed changes and therefore expect only a small increase in the use of lead ammunition.

Non-target species

Hunting can have impacts on both target and non-target species. These impacts include direct mortality of individuals, changes in wildlife behavior, changes in wildlife population structure, dynamics, and distribution patterns, and disturbance from noise and hunters walking on- and off-trail (Cole and Knight 1990, Cole 1990, Bell and Austin 1985). However, under the anticipated levels of use these impacts are expected to be minimal. Hunters tend not to disperse very far from parking areas and roads, which leaves large areas of refuge land undisturbed. Additionally, the timing of the hunt is such that many native wildlife species are not present or dormant at the time of the hunt and, therefore, unlikely to be affected. Impacts on amphibians and reptiles are expected to be negligible because these species are preparing or already hibernating or in torpor (dormancy) during the hunt season on the refuge (typically occurring mid-November through mid-December). Impacts to invertebrates such as butterflies, moths, other insects, and spiders are expected to be negligible.

Invertebrates are not active during the majority of the hunting seasons and would have few interactions with hunters during the hunting season. However, wildlife is impacted by human presence differently where birds avoided places where people were present and when visitor activity was high (Burger 1981, Klein et al. 1995, Burger and Gochfeld 1998) while mammalian use of trails in eastern forests was not impacted

by hikers (Kays et al. 2017). Additionally, noise, caused by visitor activity resulted in increased levels of disturbance of wildlife regardless of group size (Burger 1986, Klein 1993, Burger and Gochfeld 1998).

Wounded or unrecovered deer have the potential to be sources for unintentional lead ingestion by scavengers. Elevated blood levels have been documented in mammalian scavengers, but not at levels that impact populations (AFWA 2018). Raptors, particularly eagles and scavengers, can be susceptible to lead poisoning when they ingest lead fragments or pellets in the tissues of animals killed or wounded by lead ammunition (Haig et al. 2014; Church et al. 2006; Hunt et al. 2006; Pauli and Buskirk 2007; Herring et al. 2016). Raptors that scavenge on carcasses or off piles on refuge lands could be exposed to spent ammunition in the tissues of hunter-killed big game. The potential negative health impacts of lead on wildlife are complex. Residues from lead-based hunting ammunition and fishing gear can cause negative health effects, up to and including mortality, when they are unintentionally ingested. The best available science suggests that where lead ammunition use is authorized the impacts from direct ingestion are less than significant at the population level (AFWA 2018), and although it may impact population growth rates, have not led to population declines in even the most susceptible species (Slabe et al. 2022).

The hunt program would have minor, direct, short-term impacts on non-target birds because the hunting season occurs outside of the breeding and migratory seasons for shorebirds and waterbirds. Impacts would be minimized by enforcement of state and federal regulations, including the use of non-toxic shot for waterfowl hunting (4VAC15-260-140 and 50 CFR 20.21, respectively), and refuge-specific regulations that limit the number of public hunt days, hunt locations, hunting party composition, and hunting practices (50 CFR 32.65).

Federally listed or special-status species

Federally endangered and threatened species, proposed species, or special-status species, that may be found on the refuge include Atlantic sturgeon, Indiana bat, Northern long-eared bat, tri-colored bat, Eastern black rail, monarch butterfly, sensitive joint-vetch, small whorled pogonia, swamp pink, and bald eagle. The detailed Intra-Service Section 7 Evaluation can be found in Appendix J. A summary of potential impacts is included here.

Impacts of hunting vary as a result of the permitted number of hunters, the hunt area, the season, hours, and methods of take. Shooting impacts may include noise disturbance and take. Noise can have impacts beyond the hunt areas and take has associated risk of being incidental or accidental take.

Atlantic sturgeon

The Chesapeake Bay Atlantic sturgeon population is listed as federally endangered.

Atlantic sturgeon utilize large coastal rivers and estuaries including the James River as important spawning grounds. Virginia Commonwealth University and Virginia Institute of Marine Science have conducted trawl surveys and confirmed fry and adult Atlantic sturgeon offshore of Presquile NWR. The potential for lead impacts to Atlantic sturgeon is discountable because of the species preferred habitat and spawning grounds. This type of habitat is typically only hunted by waterfowl hunters, which are legally required to use lead-free shot. Since hunting, including the use of lead ammunition, is highly unlikely to overlap with Atlantic sturgeon in time or space, this species is not likely to be adversely affected by the proposed activities.

Indiana, Tri-colored and Northern long-eared bats

Indiana, tri-colored and Northern long-eared bats primarily use mines and caves in the winter to hibernate in the western part of the state and use upland forests to forage and roost throughout the rest of the year. The only hunting that takes place May through August when bats might be raising young is during turkey season in April/May. Bats might still occur in hunting zones in September and October, but the numbers would be few as most will have left for their hibernaculum.

Potential disturbances from expanded hunting, such as an increase in gun noise or additional portable tree stands, are expected to be insignificant. Noise from firearms could disturb roosting bats, but it is likely that the bats would remain in the tree during daylight hours. Such noise disturbances are temporary, not fundamentally unlike other temporary disturbances that bats may naturally experience without long-term effects, and therefore any potential effects are expected to be insignificant. If disturbed, it's likely that the bats would remain in its tree but even if a bat is flushed, the animal would fly away from the disturbance to roost in a nearby tree, which is a normal behavior and a response typical to many kinds of natural disturbances without long-term effects. Further, hunting activities would not result in any roost tree destruction as no tree cutting or other habitat alteration is permitted on the refuge. Hunting is also not permitted at night when bats are most active. For turkey hunting, the activities are strictly on the ground, so there is no tree stand use, and it is a diurnal activity. Spring turkey hunts are also only three (3) days, with limited hunters per unit, to maximize success and opportunity. Given the small number of participants, and the fact turkey hunting will occur in locations that are very unlikely to overlap with the presence of the bats, any potential disturbance effects from mentored turkey hunts are extremely unlikely to occur and are therefore considered discountable.

The potential for bats to be adversely affected by lead bioaccumulation is discountable due to their diet and foraging habits. Lead bullet fragments would have to break down in the soil to be taken up by plants near the area in which the fragments fall on or penetrate the soil surface. Typically, however, plants do not take heavy metals up until they have reached critical thresholds in the soil (Sharma and

Dubey 2005). If lead is taken up by plants, it is mainly through the root system and partly in minor amounts through the leaves. Inside the plants lead accumulates primarily in the root, but some is translocated to the aerial portions. Larvae of certain herbivorous insect species could ingest some of the lead when they eat the exposed plants. Some of the insects could then be consumed by bats. The bats' diets are comprised of insects such as moths, flies, wasps, leafhoppers, caddisflies and beetles, only some of which are herbivorous. In addition, bats are transitory in nature and will not consume their entire diets on the refuge area. Considering the chain of events that are necessary for exposure and the small amount of lead that would contribute to lead concentrations in refuge soils, it is unlikely that bats that occur on refuges will consume lead derived from ammunition fired by hunters on the refuge. Impacts are not likely to adversely affect Indiana bats or Northern long-eared bats and are not likely to jeopardize the continued existence of tricolored bats.

Eastern black rail

The Eastern black rail is a sparrow-sized, secretive marsh bird. Eastern black rail habitat can be tidally or non-tidally influenced, and range in salinity from salt to brackish to fresh but must be densely vegetated. This species may occur on Presquile NWR. The potential for lead impacts to Eastern black rails is discountable because of the bird's preferred habitat, which can be tidally or non-tidally influenced, and range in salinity from salt to brackish to fresh but must be densely vegetated. This type of habitat is typically only hunted by waterfowl hunters, which are legally required to use lead-free shot.. Since hunting, including the use of lead ammunition, is highly unlikely to overlap with Eastern black rail in time or space, this species is not likely to be adversely affected by the proposed activities.

Monarch butterfly

Monarch butterflies use the refuge grasslands, wetlands, old fields, agricultural margins, and roadsides during spring and fall migration, as well as during the spring and summer breeding season. Hunters are most likely to use tracts through forested parts of the refuge, where monarchs and their nectaring plants generally do not occur. Furthermore, given that only light foot travel from hunters accessing the area is expected to occur on these acres, we anticipate that any potential damage to nectaring plants from foot traffic disturbance will be extremely unlikely, and therefore considered discountable. These impacts are considered insignificant, as the disturbance would consist of monarchs being temporarily flushed by hunters, a similar reaction to other temporary disturbances that monarchs may naturally experience without long-term effects.

The potential for lead impacts to monarchs is discountable due to their diets. Adult monarch butterflies feed on nectar. However, exposure relies on the very unlikely

occurrence that lead concentrations in the soil from hunting activities reach high enough levels for uptake by plants, and in this case, it would further require uptake by milkweed and the specific plants that monarchs rely on for nectar sources. Given that bioaccumulation through plants into caterpillars or butterflies is discountable, the proposed activities are not likely to impact the monarch butterfly population.

Sensitive joint-vetch, small whorled pogonia, swamp pink

Sensitive joint-vetch is an annual legume that typically flowers July through early October in the intertidal zone of coastal marshes where plants are flooded twice daily. The species seems to prefer the marsh edge at an elevation near the upper limit of tidal fluctuation, where soils may be mucky, sandy, or gravelly (USFWS 2010). It occurs along the edges of freshwater tidal creeks and marshes of the Rappahannock River. Sensitive joint-vetch occurs on wetland edges that are often not utilized during hunting. It is very unlikely that any deer, turkey or small game hunting would occur in this remote and wet environment.

Small whorled pogonia grows under canopies that are relatively open or near features that create long-persisting breaks in the forest canopy such as a road or a stream. It grows in mixed deciduous or mixed-deciduous/coniferous forests. They require overwintering with mycorrhizal fungi to germinate and form above ground in late August to September (USFWS 2011). It may occur at the refuge.

Swamp pink is a perennial wetland species with evergreen leaves. Swamp pink requires specific hydrologic conditions, and no populations are known to occur at Rappahannock NWR. Swamp pink occurs in wetland areas that are not often utilized during hunting

While a small, dispersed concentration of lead may be present on the landscape due to use of ammunition containing lead, it is not likely to adversely affect these listed plants. Sharma and Dubey (2005) found that excess lead in plants causes a variety of toxic symptoms including stunted growth, chlorosis, blackening of root systems, inhibited photosynthesis, disrupted mineral nutrition and water balance, and altered plant hormones. Hunter presence will be dispersed and they are unlikely to be concentrated in the areas where these species could be found. Also, the migration of lead from soil to roots and other parts of the plant is expected to be minimal, so the use of lead for hunting activities is not likely to adversely impact these species.

Bald Eagle

After four decades of protection under the Endangered Species Act, the bald eagle was officially removed from the federal list of endangered and threatened wildlife in 2007. However, they are still protected under the Bald and Golden Eagle Act (Eagle Act) and the Migratory Bird Treaty Act. The FWS considered potential impacts to

eagles under the Refuge Improvement Act in this CD and under NEPA in the associated 2026 CatEx.

Permitting public access to any waterfront or marsh managed by the refuge holds the possibility of affecting bald eagles. Impacts may either be displacement or temporary disturbance depending on extent of use of a given site by visitors and eagles. As trees mature and forest riparian buffers are improved, sites with low concentrations will likely increase in importance to bald eagles. We will avoid potential adverse impacts to bald eagles by strictly following the management guidelines developed in consultation with the Virginia Department of Wildlife Resources and the Center for Conservation Biology. These include sight and distance setbacks from nests and concentration areas, and time-of-year restrictions.

With regards to potential impacts from lead, eagles are both predatory and engage in scavenging of carcasses and gut piles left in the environment from hunting activities. This may present a risk of lead exposure from lead fragments remaining in the carcass/gut pile (Haig et al. 2014; Church et al. 2006; Hunt et al. 2006; Pauli and Buskirk 2007; Herring et al. 2016). Other avian scavengers with similar behavior are likely to face similar exposure.

The negative impacts of lead on wildlife are well documented (Golden et al. 2016, Grade et al. 2019). Since 2021 the refuge has provided education materials and information on lead-free ammunition options for hunters, and the potential impacts lead ammunition has to wildlife. The refuge continues to encourage voluntary use of lead-free ammunition for all hunts. Impacts of continued lead ammunition usage can be reduced through best management practices. For turkey, furbearers and small game, the hunted species will usually be removed from the refuge as a full carcass which will help minimize the lead ammunition left on the landscape. For handling deer carcasses, the Virginia Hunting and Trapping Regulations Digest (2025) has suggestions for reducing lead exposure including removal of the entire carcass from the field and double-bagging materials before disposal. The refuge encourages hunters to follow these practices to reduce the impact of continued use of lead ammunition on non-target wildlife during refuge hunts. Given lead ammunition impacts primarily will be tied to firearms hunting of deer, impacts are expected to be minimal across the refuge as these hunts will only occur on three selected days.

Visitors and Users

The refuge is primarily open to all six of the Refuge System's priority public uses (hunting, fishing, wildlife observation, wildlife photography, environmental education and environmental interpretation). In 2025, 3,763 people visited the refuges for non-consumptive nature-based recreation. Over 800 visitors participated in hunting and fishing (consumptive uses) on the refuges. With the addition of new hunt species, no

increase in the number of conflicts among user groups is expected. Public outreach, zoning, and species/method-of-take restrictions in some locations have been used in the past to reduce conflicts among the different user groups. If conflicts arise among user groups, mitigation efforts (ie. designated times of use, limited access and reassessment of safety zones) can be implemented to ensure that the proposed action will not have significant impacts to other user groups.

Long-term impacts

The best available science suggests that where lead ammunition use is authorized, the impacts from direct ingestion are less than significant at the population level (AFWA 2018). Biomagnification occurs when harmful substances, such as pesticides or heavy metals, accumulate at higher concentrations as they move up the food chain. Food chain biomagnification, except for the direct ingestion of lead residues, is negligible (Behan et al. 1979; Eisler 1988; Wong et al. 1978). Although lead is a known potent neurotoxin (Eisler 1988), use of lead ammunition for hunting is not expected to have meaningful impacts to wildlife population health on the refuge, in relation to the background rate of residual lead into the environment from hunting activities at large.

Population-level estimates of lead exposure and impacts on raptors are available from a number of studies. The Raptor Rehabilitation Program at the College of Veterinary Medicine at Washington State University found that 48% of bald eagles and 62% of golden eagles tested had blood lead levels considered toxic by current standards (Stauber et al. 2010). Of the bald and golden eagles with toxic lead levels, 91% of bald eagles and 58% of golden eagles were admitted to the rehabilitation facility after the end of the general deer and elk hunting seasons in December (Stauber et al. 2010). Sampling of free-flying individuals is more representative of lead levels in the eagle population rather than those found debilitated, moribund, or dead (Harmata and Restani 2013). Though recent modeling has indicated that lead poisoning suppresses population growth in eagles, it has not led to population declines (Slabe et al. 2022). NatureServe (<https://explorer.natureserve.org>) currently lists both golden eagles and bald eagles as secure populations.

Summary of Impacts

On the refuge there would be an increased number of species allowed to be hunted. Refuge staff will work closely with our state partners to offer mentor hunt opportunities as well as other targeted demographic hunts with the objective of assisting with their R3 (recruit, retrain, reactivate) efforts. The challenge of balancing multiple consumptive and non-consumptive uses all while supporting the conservation of natural resources will persist. However, refuge hunting measures and periodic assessments would allow adjustments in hunt activities.

Because of the regulatory process for harvest management in place within the FWS, the setting of hunting seasons largely outside of the breeding seasons of resident and migratory wildlife, the ability of individual refuge hunt programs to adapt refuge-specific hunting regulations to changing local conditions, and the wide geographic separation of individual refuges, we anticipate no adverse effects on resident wildlife, migratory birds, and non-hunted wildlife of by use of hunting on the refuge.

Public Review and Comment

The draft CD was available for public review and comment for 30 days from May 27, 2026 to June 26, 2026. The public was made aware of this comment opportunity through a press release and social media posting. Federally recognized tribes were contacted on January 9, 2026 to comment on proposed hunting rule changes. No comments were received. Coordination with the State of Virginia (Virginia Department of Wildlife Resources) occurred in May 2026 and a response was received on June 25, 2026. A hard copy of this document was posted at the Eastern Virginia Rivers National Wildlife Refuge Complex Headquarters at 336 Wilna Road Warsaw, Virginia 22572. It was made available electronically on the refuge website: www.fws.gov/refuge/presquile.

A summary of public comments received as part of the 2026-2027 Hunting and Fishing Rulemaking process can be found in the Eastern Virginia Rivers NWRC specific categorical exclusion.

Determination

Is the use compatible?

Yes

Stipulations Necessary to Ensure Compatibility

To ensure compatibility with the refuge's purpose and the Refuge System mission, hunting can occur at the refuge in accordance with state and federal regulations and special refuge-specific regulations (50 CFR 32.38) 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 and impacts on wildlife species will be monitored and potentially modified or eliminated if any of the program's components are found not compatible. Adherence to the regulations, as detailed in the 2026 Hunting and Recreational Fishing Plan and associated hunt-specific documents, will ensure compatibility with the purpose for which the refuge was established. The following stipulations are necessary to ensure compatibility:

- Dogs are prohibited for the pursuit of other game and training on refuge lands.

- ATVs/UTVs and trailers are prohibited.
- We only allow portable tree stands and blinds for deer hunting. You must remove any tree stand at the end of the hunt day. No damage to trees will be allowed.
- We recommend that hunters using lead ammunition remove carcasses and gut piles from the refuge when they have a successful take of a hunted species.

Justification

In view of the above and with the provided stipulations implemented, this use has been determined to be compatible at Presquile National Wildlife Refuge. Hunting is one of the six priority wildlife-dependent recreational uses identified in the National Wildlife Refuge System Improvement Act of 1997. As a priority use, the U.S. Fish and Wildlife Service directs us to provide recreational hunting opportunities when compatible with the FWS's mission and the original purpose of the refuge as a resting and wintering area for migrating waterfowl and other migratory birds. Hunting, as outlined in this compatibility determination, would not conflict with the national policy to maintain the biological diversity, integrity, and environmental health of the refuge. Based on available science and best professional judgment, the FWS has determined that hunting at Presquile National Wildlife Refuge, in accordance with the stipulations provided here, would not materially interfere with or detract from the fulfillment of the National Wildlife Refuge System mission or the purpose of the refuge. Hunting inherently provides visitors with education of native wildlife and habitat while fostering an appreciation for the Refuge System's lands and waterways.

Signature of Determination

MARCIE
KAPSCH

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Refuge Manager Signature and Date

Signature of Concurrence

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Refuge Chief, Northeast Region Signature and Date

Mandatory Reevaluation Date

2041

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Compatibility Determination

Title

Compatibility Determination for hunting at Rappahannock River Valley National Wildlife Refuge.

Refuge Use Category

Hunting

Refuge Use Type(s)

Hunting of big game, small game, furbearers and waterfowl

Refuge

Rappahannock River Valley National Wildlife Refuge

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

Rappahannock River Valley National Wildlife Refuge (NWR) was established in 1996 when the first property was purchased for the development, advancement, management, conservation and protection of fish and wildlife resources...for the benefit of the U.S. Fish and Wildlife Service, in performing its activities and services. (Fish and Wildlife Act of 1956, as amended [16 U.S.C. 742a-742j, not including 742d-l]) The refuge purposes from these statutory authorities are:

“...the conservation of the wetlands of the Nation in order to maintain the public benefits they provide and to help fulfill international obligations...” 16 U.S.C. §3901(b), 100 Stat. 3583 (Emergency Wetlands Resources Act of 1986)

“to conserve...fish or wildlife which are listed as endangered species or threatened species” 16 U.S.C. §1534 (Endangered Species Act of 1973), and

“...for use as an inviolate sanctuary, or for any other management purpose, for migratory birds...” (Migratory Bird Conservation Act, as amended [16 U.S.C. 715-715d, 715e, 715f-715r]).

National Wildlife Refuge System Mission

The mission of the National Wildlife Refuge System (Refuge System) is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats

within the United States for the benefit of present and future generations of Americans (Pub. L. 105-57; 111 Stat. 1252).

Description of Use

Is this an existing use?

Yes.

This compatibility determination (CD) reevaluates and replaces the 2021 CD for Hunting. Hunting has been conducted on the refuge property since before its acquisition in 1996 and continues to this day. The use is consistent with the 2021 Hunting and Recreational Fishing Plan and associated Environmental Assessment (EA) and Finding of No Significant Impact (2021). The previous 2021 CD was released with the draft hunt plan and EA for public review and comment from April 9 through July 6, 2021. A total of 20 unique commentors offered input to the refuge. The agency responded to those comments in the Finding of No Significant Impact.

This use is being reevaluated due to proposed changes to the refuge's hunt program as described in the 2025 Categorical Exclusion. The agency proposes to open an additional 85 acres to deer, 690 acres to turkey and coyote hunting, 2,293 acres to groundhog hunting, 6,437 acres to bobcat hunting and 2,293 to opossum, red fox, raccoon and striped skunk.

The 2021 Hunt Plan required the use of lead-free ammunition for small game (squirrel and rabbit), turkey, and coyote, effective immediately. The 2021 Hunt Plan also set forth a delayed implementation requirement of lead-free ammunition for white-tailed deer, effective September 1, 2026. The FWS proposes to withdraw the lead-free requirements detailed in the 2021 plan, in response to current lack of reasonable and prudent alternatives, and recent directives aimed at reducing regulations (Executive Order (E.O.) 14192, Unleashing Prosperity Through Deregulation, dated January 31, 2025; Secretarial Order (S.O.) 3421, Achieving Prosperity through Deregulation, dated Feb 8, 2025; and S. O. 3447: Expanding Hunting and Fishing Access, Removing Unnecessary Barriers, and Ensuring Consistency Across the Department of Interior Lands and Waters, dated January 7, 2026). The historical, federal nation-wide non-toxic shot requirement for ducks, geese, brant, swans, and coot from 1991 remains in effect (50 CFR 20.21(j)).

What is the use?

Multiple types of hunting are permitted under this compatibility determination, including big game, small game, furbearers and waterfowl. Recreational hunting of big game includes deer and turkey. Recreational hunting of small game includes groundhog, rabbit, and gray squirrel. Recreational hunting of furbearer includes bobcat, coyote, red fox, opossum, raccoon, and striped skunk. Waterfowl hunting

includes mergansers, ducks, coots, Atlantic brant, Canada goose, and light goose.

Is the use a priority public use?

Yes

Where would the use be conducted?

Hunting will be permitted across fourteen zones and 7,266 acres. Big game and some upland game (coyote and bobcat) hunting would be permitted throughout the refuge, except for the Island Farm Unit.

Certain upland game (red fox, opossum, raccoon and striped skunk) hunting would be permitted on the Tayloe, Mothershead, Franklin, and Wright units, whereas groundhog, gray squirrel and rabbit hunting would be permitted on the Mothershead, Franklin and Wright units.

Waterfowl and other migratory bird hunting would be permitted Cat Point Creek and Island Farm Units.

All hunting would also be excluded from no-hunting zones that include a 150-yard safety buffer around all refuge buildings, such as refuge headquarters; maintenance shop; refuge residences and private residences adjacent to the refuge.

The FWS will make a reasonable effort to allow hunters access to all portions of the hunt areas, and provide safe, quality hunting opportunities. However, we may have to close for hunting if unsafe conditions arise or if potential impacts to wildlife resources occur.

When would the use be conducted?

Hunting will be conducted in accordance with federal and state regulations. In cooperation with the state, we may adjust hunt season dates in the future to be more restrictive than state regulations as needed to achieve wildlife population levels consistent with refuge goals. Hunting will only occur on the refuge between October 1 and May 16 (specific dates depend on the species). Night hunting is not allowed on the refuge. No Sunday hunting is allowed on the refuge to allow scouting opportunities. Hunters may enter the refuge 1 hour before state posted legal shooting time in the morning and must leave no later than 1 hour after legal shooting time in the evening.

Deer

Deer hunting and scouting would be permitted during the state archery, Muzzleloader, and shotgun seasons between October 1 and December 14th. Archery

hunting is open during October. The muzzleloader season consists of four designated days during the first two weeks in November. The shotgun season occurs across ten designated days from mid-November to mid-December. These are general season periods and may change as the State of Virginia regulations change. All hunting hours will follow state regulations.

Turkey

Turkey hunting seasons are open in accordance with state seasons and regulations. The fall archery season normally occurs during the month of October. Fall firearms hunting will occur during deer firearms hunts. Spring turkey hunting would be open for three half-days in the early part of the season (starting late April). Spring turkey hunting would also be open on the Saturday of the Youth and Apprentice weekend as designated by the state (usually early April). The seasons may change as the State regulations change. All hunting hours will follow state regulations.

Upland game

Bobcat, coyote, red fox, opossum, raccoon, and striped skunk hunting will occur in accordance with state seasons and regulations by species but will follow deer hunt days and method of take seasons. Hunting will take place Saturdays and Sundays from October 1 through the first weekend in January. These are general season periods and may change as the State of Virginia regulations change. All hunting hours will follow state regulations.

Groundhog, gray squirrel and rabbit hunting will occur in designated units on Saturdays and Sundays from the second weekend of January to February 28th. All state legal methods of take are permitted during this time. These are general season periods and may change as the state regulations change. The refuge does not allow night hunting so hunting hours will be restricted to half an hour before sunrise and half an hour after sunset.

Migratory bird

All migratory bird hunting hours will follow state regulations. Annual migratory game bird seasons are selected by the state from a framework established by the Service. The state selections are made after reviewing last year's season results, survey data, and input gathered from migratory game bird hunters and the public. Hunting on designated units will occur a maximum of 3 days a week throughout the full season.

Specialty/Mentor-Led Hunts

All species may be open to special hunts throughout the state season for that species. The goal of the special hunts is to provide quality recreational hunting experiences that may be limited or not available for underserved hunting populations within the

structure of general public hunting. The populations targeted for these special hunts are mentor-led hunters, youth hunters, hunters with disabilities, non-male hunters, veterans, and senior hunters.

How would the use be conducted?

To ensure a quality hunt and visitor and staff safety, all hunting activities are in accordance with federal and state regulations, subject to refuge-specific regulations. 50 CFR contains the federal regulations pertaining to the National Wildlife Refuge System Administration Act. State regulations, such as seasons, bag limits, and general methods of take, are published annually in the Virginia Hunting and Trapping Digest. Trapping is not considered a method of take as defined in this compatibility determination and is evaluated through a separate compatibility determination. The refuge manager may, upon annual review of the hunting program, impose further restrictions on hunting, recommend that the refuge be closed to hunting, or further liberalize hunting regulations up to the limits of state regulations. We will restrict hunting if it becomes inconsistent with other priority refuge programs or endangers refuge resources or public safety.

General information will be available in hunting brochures and refuge maps, located at the Complex headquarters. Maps will show refuge trails, public use areas, closed areas, and approved access roads that are clearly defined. Hunters can address questions to refuge staff by calling, writing, e-mailing, or visiting the Complex headquarters in Warsaw, Virginia. Signs alerting the visiting public to educate themselves of the timing of hunting seasons will be posted at the refuge office and at access points and kiosks. Advance notification of hunting opportunities will allow hunters to prepare, plan, and scout, which ultimately improves the quality of their hunting experiences. Whenever possible, the refuge will designate scouting days prior to any hunting to provide hunters an opportunity to scout the refuge units, thus becoming more familiar with the unit, habitats, refuge boundaries and facilities.

Only portable tree stands and blinds will be allowed. Hunters are required to hunt from tree stands, elevated no less than ten (10) feet above the ground during muzzleloader deer season. In all other hunts, hunters may hunt from the ground or a portable tree stand. Tree stands and ground blinds must be removed at the end of each day, except for Rappahannock NWR's two (2)-day hunts. No permanent hunting stands/blinds may be constructed on refuge lands. All access points will be delineated on refuge hunt maps and will be included in the annual hunting brochure.

Rules, regulations, and conditions of the hunt will be posted in the months prior to the hunt season on refuge website, refuge kiosk, and other publications. The mentor-led hunts and state youth/apprentice hunts will not require a permit or fee. Quota hunts require a permit fee, which will be retained by the refuge to offset the cost of

the hunt. Hunters would need to attain all other applicable local, state and/or federal licenses, permits, or stamps in accordance with local, state, and federal laws. Additional details on refuge-specific regulations and procedures can be found in the Hunting and Fishing Plan.

The 2021 Hunt Plan required the use of lead-free ammunition for squirrel, rabbit, turkey, and coyote, effective immediately. The 2021 Hunt Plan also set forth a delayed implementation requirement of lead-free ammunition for white-tailed deer, effective September 1, 2026. The FWS proposes to withdraw the lead-free requirements detailed in the plan, in response to current lack of reasonable and prudent alternatives, and recent directives aimed at reducing regulations (E.O. 14192, S.O. 3421, and S. O. 3447). The historical, federal nation-wide non-toxic shot requirement for ducks, geese, brant, swans, and coot from 1991 remains in effect (50 CFR 20.21(j)).

Why is this use being proposed or reevaluated?

Hunting is one of the priority public uses defined by the Refuge System Administration Act of 1966, as amended by the Refuge System Improvement Act of 1997 (Public Law 105-57). Department of the Interior Secretarial Order 3356 (September 15, 2017) emphasized identifying opportunities to increase outdoor recreation opportunities for all Americans, including opportunities to hunt and fish. This legitimate and appropriate use of a national wildlife refuge is generally considered compatible, as long as it does not materially interfere with or detract from the fulfillment of the Refuge System mission or the purposes of the Complex.

Per FWS Policy 603 FW 2.11H. 1 “We will reevaluate compatibility determinations for existing wildlife-dependent recreational uses when conditions under which the use is permitted change significantly, or if there is significant new information regarding the effects of the use, or concurrently with the preparation or revision of a comprehensive conservation plan, or at least every fifteen (15) years, whichever is earlier...” In this instance, rescinding the lead-free ammunition requirement that was implemented in the 2021 Hunting and Fishing Plan necessitated reevaluation of compatibility for this use.

Additionally expanding hunting opportunities and aligning regulations with state agencies implements S.O. 3347 Conservation Stewardship and Outdoor Recreation, S.O. 3356 Hunting, Fishing, Recreational Shooting, and Wildlife Conservation Opportunities and Coordination with States, Tribes, and Territories, and the 2025 Director’s Memo for an Annual Update for the 2026-2027 Hunting and Sport Fishing Seasons on National Wildlife Refuges and National Fish Hatcheries. The hunt program is administered in accordance with sound wildlife management principles and the utmost concern for public safety.

Availability of Resources

To comply with the Refuge Recreation Act (Public Law 87-714) and Refuge Improvement Act (Public Law 105-57), the Refuge Manager must determine whether sufficient resources—financial, staffing, facilities, or other infrastructure—are available to support the proposed use without materially interfering with the refuge purpose(s) or the mission of the National Wildlife Refuge System. This determination should be informed by a review of current capacity and, where applicable, the refuge's Comprehensive Conservation Plan (CCP).

Assessment of current resources and capacity

The Refuge Manager will use sound professional judgment to determine the funding and staffing needed to perform the functions necessary to ensure compatibility. These functions include trail, parking lot, and road maintenance, developing annual refuge hunting regulations factsheets, updating the website, inventory and monitoring of game species, and reporting. If the refuge does not have the resources to carry out these functions, compatibility of the refuge use may be reevaluated and discontinued at that time.

The resources needed to administer this use are currently available. However, adequate levels of refuge staffing, funding, and facilities are necessary to administer this use in a manner that ensures continued compatibility (603 FW2 2.11(A.2)). Therefore, a reduction in any of these resources may prompt the Refuge Manager to reevaluate the compatibility of this use, and the Refuge Manager may decide to modify or discontinue the use.

We estimate that the recurring annual expense to administer this use is \$8,000. This includes the cost of maintenance (varies based on the amount of trail, parking lot and road use by this activity) and staff time for developing materials and monitoring the use.

Impacts of changes to resources and capacity

The availability of resources is subject to change and the level of use provided may vary based on current staffing, partner support, funding, or infrastructure conditions. Costs may increase over time, in relation to changes in the costs for equipment, maintaining facilities, etc. A substantial increase to the number of requests may also create the need for additional resources to administer the use. The Refuge Manager will use sound professional judgment in evaluating whether the refuge or its partners can develop, operate, and maintain the use in a compatible manner.

For priority public uses—including hunting, fishing, wildlife observation and photography, or environmental education and interpretation—if resource conditions

shift such that the refuge can no longer sustain the use in a compatible manner, the Refuge Manager may temporarily modify or suspend the use pursuant to 50 CFR 25.21(E) for a period of up to one year). If it becomes apparent that insufficient resources will be sustained into the long-term, the Refuge Manager may reevaluate the compatibility of the use and discontinue the use if necessary. The public will be notified of any changes to refuge uses, including temporary modification or suspension, reevaluation of compatibility and/or discontinuing of refuge uses.

Anticipated Impacts of the Use

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

Hunting was evaluated in the environmental assessment associated with the 2021 Hunting and Recreational Fishing Plan (USFWS 2021). Hunting has been found not to significantly impact the human environment through the Finding of No Significant Impact. Additionally, hunting is being evaluated through the draft 2026 Categorical Exclusion. The analysis below is supplemental to the previous environmental effects described in those documents. The effects and impacts of the proposed use to refuge resources, whether adverse or beneficial, are those that are reasonably foreseeable and have a reasonably close causal relationship to the proposed use. This CD includes the written analyses of the environmental consequences on an affected resource only when the impacts on that resource could materially interfere or detract from the purpose for which a refuge was established and the mission of the Refuge System.

Hunting has occurred on some refuge lands for many years with no discernible adverse impacts, or significant conflicts with other priority public uses. Hunting provides wildlife-dependent recreational opportunities that can foster a better appreciation and more complete understanding of wildlife and habitats associated with the Chesapeake Bay ecosystem, which could translate into stronger support for wildlife conservation, the refuge, the Refuge System, and the FWS.

To the best of our knowledge, there are negligible impacts to wildlife populations, including special status species, or habitats from lead ammunition. Hunting is not expected to meaningfully affect wildlife population health on the refuge, in relation to the background rate of residual lead into the environment from hunting activities at large. The best available science suggests that where lead ammunition use is authorized, impacts to wildlife from direct ingestion are observable but would not approach a threshold of significance at the population level (AFWA 2018), while food chain biomagnification is negligible (Behan et al. 1979; Eisler 1988; Wong et al. 1978).

The refuge continues to educate hunters on lead-free alternatives and encourage

voluntary use of lead-free ammunition for all hunts. The refuge also educates hunters on best management practices (e.g., removal of carcass when possible) to reduce the impact of continued use of lead ammunition on non-target wildlife during refuge hunts. The nature of hunting on the refuge reduces the potential that wildlife will be at great risk from lead exposure, especially given the large huntable area, multiple access sites, and the small number of hunters. The number of individuals of a species that may be exposed to toxic amounts of lead are so small that we do not anticipate any long-term population level effects to wildlife residing on or migrating through the refuge. For more information on the effects of lead as a result of hunting on wildlife, including threatened, endangered, and special status species, habitat, and the human environment, see the 2021 Eastern Virginia Rivers National Wildlife Refuge Complex Hunting and Recreational Fishing Plan and associated Environmental Assessment.

Short-term impacts

Vegetation and Soils

Repeated visitation to any particular locale at the refuge would continue to cause minor site-specific damage to vegetation and soils. Accidental introduction of invasive plants, pathogens, or exotic invertebrates attached to vehicles, shoes, or clothing is another source of direct minor impacts on vegetation. In places where unmarked paths are created by hunters, little used pathways will retain their dominant vegetation species, but on medium-use pathways some plant species will be replaced, and heavily used paths will often contain invasive species (Liddle and Scorgie 1980).

Using staff observations of past impacts, hunting is expected to have negligible adverse impacts on vegetation in the short and long-term. Disturbance to vegetation may occur when hunters travel off trail through upland habitats. We expect negligible impacts to vegetation would result because the hunters disperse themselves or are assigned to designated hunt locations across the refuge. Hunters typically only travel as far as needed to find a desirable hunting location. To limit the disturbance, parking lots will be created and designated for hunter use in Rappahannock River Valley. Furthermore, most vegetative species will have already undergone senescence or become dormant during when much of the hunting season occurs.

Positive effects on the vegetation would result indirectly from a reduction in the deer population. The impacts of dense deer populations on forest regeneration and the composition and diversity of the herbaceous understory have been well-documented (Tierson et al. 1966, Tilghman 1989). Allowing public deer hunting to continue on the refuge would maintain the habitat as it is now and prevent degradation due to

overbrowsing. Well-managed hunting can effectively control deer and produce dramatic changes in the forest vegetation (Behrend et al. 1970). The impact of deer hunting on the vegetation would be positive and result in better regeneration of forest canopy species and an increase in the diversity of the herbaceous understory.

In summary, there would be few if any negative impacts from this use on the refuge's vegetation, but there would be beneficial impacts from the decrease of deer browse on the refuge's vegetation due to the decrease in the number of deer on refuge lands.

Water Resources and Wetlands

Hydrology impacts would be minimal and primarily result from use of roads and trails. However, hunting is expected to have minimal effects as hunters are generally dispersed, which reduces repeated erosive actions on soils. Additionally, hunters will have designated parking areas which will help prevent increased ruts in roads and water runoff pathway disturbance. Parking outside of designated areas has been an issue in the past necessitating the installation of additional signs to direct refuge hunters/visitors.

It is anticipated that hunting on the refuge will have minor impacts to wetlands. Big game and small game hunting is limited to upland habitats. Waterfowl hunting would be the only hunt to consistently use wetlands and will be restricted to designated stationary hunt blind or platform locations. The use of no more than two retrieval dogs per hunting blind/platform will further mitigate wetland disturbance.

Wildlife

White-tailed deer

Virginia's deer population is estimated to be between 850,000 and 1,000,000 deer and is not at risk of overharvest (VDGIF 2015). The state determines seasons and bag limits based on regional deer harvest data. The state's deer management program regulates deer hunting toward maintaining at moderate to low population densities, in fair to good physical condition, and below the biological carrying capacity of the habitat (VDGIF 2015). High deer densities have been shown to negatively affect plant and animal communities. Therefore, a hunting program would help to facilitate ecological diversity by mitigating the effects of high deer densities. Deer densities, if maintained through regulated hunting, will sustain the native vegetation and forest regeneration associated with the natural communities in those regions. Regulated deer hunting will also maintain a deer herd in good physical condition that staves off malnutrition and disease as well as prevents direct negative impacts to other wildlife and present habitat. For example, heavily browsed habitats (a result of insufficient food for the herd size) have shown to decrease migratory songbird foraging opportunity (deCalesta 1994).

While refuge specific data is unavailable, the average deer take in Virginia is three (3) to five (5) deer per hunter (Martin 2020). However, due to the over population of deer throughout the counties within our refuge and relatively low number of deer harvested on the refuge, hunting on the refuge is predicted to have minimal adverse impacts on the local population.

Turkey

VADWR estimated that the turkey population was nearly 180,000 individuals in 2014 with increasing populations in all counties encompassing our refuge (VADGIF 2014). Fall turkeys will only be harvested opportunistically during the deer season, which limits hunter impacts during the fall season. The spring turkey seasons will be offered for designated days for youth hunts and in the beginning of the season to avoid impacts with migratory birds. Regulated hunting following state seasons and bag limits is not anticipated to have any long-term adverse impacts on local or regional turkey populations.

Birds like turkeys that forage on the ground and use grit to help in digestion, are at risk of lead exposure through the direct ingestion of spent lead shot (Larsen et al. 2007; Franson et al. 2009; Fisher et al. 2006). Exposure to lead has not broadly declined for game birds where lead shot and ammunition are still commonly used (Haig et al. 2014). Population level impacts to upland birds are not anticipated to occur from removing the lead-free restriction on the refuge.

Upland Game (Bobcat, Coyote, Red fox, Opossum, Raccoon, Striped Skunk, squirrels, rabbit and groundhog)

Upland Game species hunted on the refuge include bobcat, coyote, red fox, opossum, raccoon, striped skunk, squirrels, rabbit and groundhog. Each of these species are common species across the State of Virginia and found on the refuge. Bobcat, coyote, red fox, opossum, raccoon, and striped skunk will be hunted opportunistically during fall deer hunting days. To minimize impact on the refuge habitats and protect safety, hunting with dogs and night hunting is prohibited on the refuge. These species can be hunted by stand hunting only. Each of these species will be hunted within the state set season and following state bag limits. Hunting gray squirrel, eastern cottontail, marsh rabbit and groundhog in accordance to federal, state and refuge-specific regulations. The state relies on broad scale information to set harvest rates, as these species are common throughout the state. Currently, the bag limits for all types of squirrel and rabbit are 6 per day. Small game hunting is expected to have minimal adverse effects on targeted populations. To mitigate disturbance, hunting will be allowed on selected days, will only occur from sunrise to sunset, and is limited to

three units (Franklin, Mothershead, and Wright).

No long-term adverse impacts on local or regional populations of these species are anticipated from this addition. Mentor-led hunts will be designated to specific zones, allowing for enhanced hunter opportunity and safety.

Mammals are primarily exposed to lead through ingestion of lead shot and bullet fragments in carcasses or gut piles left by hunters. Scavengers such as coyotes have exhibited elevated lead blood levels during the fall hunting season (Bedrosian and Craighead 2006, Rogers et al. 2012).

Mortality in mammals due to lead ingestion is not as prevalent as it is in birds. Currently there is limited evidence that demonstrates population-level impacts to mammalian species (AFWA 2018). It is expected that due to feeding behaviors, some mammal species are more likely than some bird species to be exposed to smaller amounts of lead, relative to body mass, but over extended periods of time (Hydeskov et al. 2024). For example, waterfowl are known to pick up large numbers of lead pellets or fishing weights when foraging (Pain et al. 2019), yet most wild mammals would not be exposed to such large amounts of lead at once, as they forage using different methods, particularly carnivores (Hydeskov et al. 2024).

Although lead is a known potent neurotoxin (Eisler 1988), the proposed removal of the lead-free ammunition requirement for hunting is not expected to meaningfully affect wildlife population health on the refuge, in relation to the background rate of residual lead into the environment from hunting activities at large. Also, we expect a low number of additional hunters as a result of these proposed changes and therefore expect only a small increase in the use of lead ammunition.

Waterfowl and other migratory birds

Migratory game birds are managed on a flyway basis and hunting regulations are established in each state based on flyway data. Federal and state regulations would apply in the refuge waterfowl hunt. Waterfowl hunter numbers in Virginia have been generally stable since the late 1990s. Since 1999, the Harvest Information Program (HIP) has been used to estimate hunter effort and harvest. The average number of duck and goose hunters over the past 5 years (2020-2024), as measured by HIP, was 16,300 and 10,360 respectively for a total of 19,020 waterfowl hunters on average in Virginia. The state average hunter harvest per season is 8.2 ducks and 3.4 geese.

Waterfowl hunting will only occur from three stationary blind or platforms with a maximum of three hunters per blind or platform. The season will include select dates based on state-defined seasons. Bag limits for waterfowl will coincide with the

appropriate federal and state regulations. The use of retrieving dogs for waterfowl hunting is encouraged; however, the dogs must be under the hunter's control at all times, and no more than two dogs are permitted per blind or platform (no more than one dog per hunter).

Additionally, fall is the season for bird migration, and hunting may disturb their resting and foraging during this critical time. Migrating and wintering birds may be foraging and roosting in upland and wetland habitats. Hunting activity may cause these birds to unnecessarily take flight, expending energy resources when food resources are limited. Because this use is not concentrated in space or time (it occurs on select days throughout the refuge during designated times within the hunting season), the disturbance effects on wildlife that are using the refuge during fall and winter are not expected to be significant. In addition to direct mortality, hunting could result in some short-term redistribution due to disturbance, but impacts are expected to be minimal (Tamisier et al. 2003).

We will limit human disturbance in the majority of the refuge by only allowing waterfowl hunting to occur at designated hunt blind or platforms. On non-hunting days, waterfowl can rest, feed, and move throughout the entire refuge without the influence of human disturbance. Shooting impacts may include noise disturbance and take. Noise can have impacts beyond the hunt areas and take has associated risk of being incidental or accidental take. Larkin et al. (1996) conducted a literature review finding firearm blasts as being likely to drive roosting waterfowl from preferred habitat.

Hunting waterfowl on the refuge would make the birds more skittish and prone to disturbance, reduce the amount of time they spend foraging and resting, and alter their habitat usage patterns (Raveling 1979, Owen 1973, White-Robinson 1982, Madsen 1985, Bartelt 1987) and the use of dogs for retrieval could increase these impacts. While free-roaming dogs can be potential disturbance sources; the brevity of their presence as well as infrequent disturbance will be less impactful than the disturbance caused by the hunters (Bell and Owen 1990). The dogs will be trained for retrieval only (versus flushing) which further mitigates possible disturbance. In addition, dogs are required to be under the control of their owners and will be in the blind with the hunters. Their disturbance to vegetation is also expected to be minimal as most emergent and/or submerged aquatic vegetation will be dormant and to retrieve the waterfowl dogs mostly swim and/or are partially supported in the water.

Non-target species

Hunting can have impacts on both target and non-target species. These impacts include direct mortality of individuals, changes in wildlife behavior, changes in

wildlife population structure, dynamics, and distribution patterns, and disturbance from noise and hunters walking on- and off-trail (Cole and Knight 1990, Cole 1990, Bell and Austin 1985). However, under the anticipated levels of use these impacts are expected to be minimal. Hunters tend not to disperse very far from parking areas and roads, which leaves large areas of refuge land undisturbed. Additionally, the timing of the hunt is such that many native wildlife species are not present or dormant at the time of the hunt and, therefore, unlikely to be affected. Impacts on amphibians and reptiles are expected to be negligible because these species are preparing or already hibernating or in torpor (dormancy) during the hunt season on the refuge (typically occurring mid-November through mid-December). Impacts to invertebrates such as butterflies, moths, other insects, and spiders are expected to be negligible. Invertebrates are not active during the majority of the hunting seasons and would have few interactions with hunters during the hunting season. However, wildlife is impacted by human presence differently where birds avoided places where people were present and when visitor activity was high (Burger 1981, Klein et al. 1995, Burger and Gochfeld 1998) while mammalian use of trails in eastern forests was not impacted by hikers (Kays et al. 2017). Additionally, noise, caused by visitor activity resulted in increased levels of disturbance of wildlife regardless of group size (Burger 1986, Klein 1993, Burger and Gochfeld 1998).

Wounded or unrecovered deer have the potential to be sources for unintentional lead ingestion by scavengers. Elevated blood levels have been documented in mammalian scavengers, but not at levels that impact populations (AFWA 2018). Raptors, particularly eagles and scavengers, can be susceptible to lead poisoning when they ingest lead fragments or pellets in the tissues of animals killed or wounded by lead ammunition (Haig et al. 2014; Church et al. 2006; Hunt et al. 2006; Pauli and Buskirk 2007; Herring et al. 2016). Raptors that scavenge on carcasses or off piles on refuge lands could be exposed to spent ammunition in the tissues of hunter-killed big game. The potential negative health impacts of lead on wildlife are complex. Residues from lead-based hunting ammunition and fishing gear can cause negative health effects, up to and including mortality, when they are unintentionally ingested. The best available science suggests that where lead ammunition use is authorized the impacts from direct ingestion are less than significant at the population level (AFWA 2018), and although it may impact population growth rates, have not led to population declines in even the most susceptible species (Slabe et al. 2022).

The hunt program would have minor, direct, short-term impacts on non-target birds because the hunting season occurs outside of the breeding and migratory seasons for shorebirds and waterbirds. Impacts would be minimized by enforcement of state and federal regulations, including the use of non-toxic shot for waterfowl hunting (4VAC15-260-140 and 50 CFR 20.21, respectively), and refuge-specific regulations that

limit the number of public hunt days, hunt locations, hunting party composition, and hunting practices (50 CFR 32.65).

Threatened and Endangered Species and Other Special Status Species

Federal endangered or threatened species that are found (or may be found) within the acquisition boundary of the refuge include Atlantic sturgeon, Indiana bat, Northern long-eared bat, Eastern black rail, yellow lance mussel, sensitive joint-vetch, small whorled pogonia, and swamp pink. Proposed species include the tricolored bat, green floater mussel, and the monarch butterfly. Special federal status species include bald eagles. Overall, it is expected that this use will not conflict with recovery or protection of these species. There have been no traceable issues to date. A detailed Intra-Service Section 7 Evaluation can be found in Appendix J. It provides further analysis on potential impacts, including from lead, to the species listed below. A summary of potential impacts is included here.

Impacts of hunting vary as a result of the permitted number of hunters, the hunt area, the season, hours, and methods of take. Shooting impacts may include noise disturbance and take. Noise can have impacts beyond the hunt areas and take has associated risk of being incidental or accidental take.

Atlantic sturgeon

The Chesapeake Bay Atlantic sturgeon population is listed as federally endangered. Atlantic sturgeon utilize large coastal rivers and estuaries including the Rappahannock River as important spawning grounds. Virginia Commonwealth University and Virginia Institute of Marine Science have conducted trawl surveys and confirmed fry and adult Atlantic sturgeon offshore of Rappahannock River Valley NWR. The potential for lead impacts to Atlantic sturgeon is discountable because of the species preferred habitat and spawning grounds. This type of habitat is typically only hunted by waterfowl hunters, which are legally required to use lead-free shot. Since hunting, including the use of lead ammunition, is highly unlikely to overlap with Atlantic sturgeon in time or space, this species is not likely to be adversely affected by the proposed activities.

Indiana bat, Northern long-eared bat and tri-colored bat

Indiana, tri-colored and Northern long-eared bats primarily use mines and caves in the winter to hibernate in the western part of the state and use upland forests to forage and roost throughout the rest of the year. The only hunting that takes place May through August when bats might be raising young is during turkey season in April/May. Bats might still occur in hunting zones in September and October, but the numbers would be few as most will have left for their hibernaculum.

Potential disturbances from expanded hunting, such as an increase in gun noise or additional portable tree stands, are expected to be insignificant. Noise from firearms

could disturb roosting bats, but it is likely that the bats would remain in the tree during daylight hours. Such noise disturbances are temporary, not fundamentally unlike other temporary disturbances that bats may naturally experience without long-term effects, and therefore any potential effects are expected to be insignificant. If disturbed, it's likely that the bats would remain in its tree but even if a bat is flushed, the animal would fly away from the disturbance to roost in a nearby tree, which is a normal behavior and a response typical to many kinds of natural disturbances without long-term effects. Further, hunting activities would not result in any roost tree destruction as no tree cutting or other habitat alteration is permitted on the refuge. Hunting is also not permitted at night when bats are most active. For turkey hunting, the activities are strictly on the ground, so there is no tree stand use, and it is a diurnal activity. Spring turkey hunts are also only three (3) days, with limited hunters per unit, to maximize success and opportunity. Given the small number of participants, and the fact turkey hunting will occur in locations that are very unlikely to overlap with the presence of the bats, any potential disturbance effects from mentored turkey hunts are extremely unlikely to occur and are therefore considered discountable.

The potential for bats to be adversely affected by lead bioaccumulation is discountable due to their diet and foraging habits. Lead bullet fragments would have to break down in the soil to be taken up by plants near the area in which the fragments fall on or penetrate the soil surface. Typically, however, plants do not take heavy metals up until they have reached critical thresholds in the soil (Sharma and Dubey 2005). If lead is taken up by plants, it is mainly through the root system and partly in minor amounts through the leaves. Inside the plants lead accumulates primarily in the root, but some is translocated to the aerial portions. Larvae of certain herbivorous insect species could ingest some of the lead when they eat the exposed plants. Some of the insects could then be consumed by bats. The bats' diets are comprised of insects such as moths, flies, wasps, leafhoppers, caddisflies and beetles, only some of which are herbivorous. In addition, bats are transitory in nature and will not consume their entire diets on the refuge area. Considering the chain of events that are necessary for exposure and the small amount of lead that would contribute to lead concentrations in refuge soils, it is unlikely that bats that occur on refuges will consume lead derived from ammunition fired by hunters on the refuge. Impacts are not likely to adversely affect Indiana bats or Northern long-eared bats and are not likely to jeopardize the continued existence of tricolored bats.

Eastern black rail

The Eastern black rail is a sparrow-sized, secretive marsh bird. Eastern black rail

habitat can be tidally or non-tidally influenced, and range in salinity from salt to brackish to fresh but must be densely vegetated. At Rappahannock NWR, the rail is only present during the breeding season with no known occurrences of overwintering birds in the area. The potential for lead impacts to Eastern black rails is discountable because of the bird's preferred habitat which can be tidally or non-tidally influenced, and range in salinity from salt to brackish to fresh but must be densely vegetated. This type of habitat is typically only hunted by waterfowl hunters, which are legally required to use lead-free shot. Since hunting, including the use of lead ammunition, is highly unlikely to overlap with Eastern black rail in time or space, this species is not likely to be adversely affected by the proposed activities.

Green floater and yellow lance mussels

The yellow lance are freshwater mussels that are found in moderate flowing water with high dissolved oxygen content in riverine or larger creek environments with coarse to medium sand beds. The green floater thrives in similar habitats but prefers the quieter pools and eddies. Yellow lance is present at Rappahannock NWR, and green floater may be present there as well in the northern Rappahannock River.

Lead accumulation from hunting activities is not likely to adversely affect mussel populations because they are aquatic species that live in flowing waters. There is a chance that lead could enter the water where mussels live; however, lead is not usually soluble in water unless particular conditions exist such as soft acidic water which contains a higher dissolved lead content (Rattner et al. 2008). Even if the amount of lead added to the refuge from ammunition reaches the rivers, it is not likely to accumulate in the water column of the flowing rivers and affect filter feeders like mussels.

Monarch butterfly

Monarch butterflies use the refuge grasslands, wetlands, old fields, agricultural margins, and roadsides during spring and fall migration, as well as during the spring and summer breeding season. Hunters are most likely to use tracts through forested parts of the refuge, where monarchs and their nectaring plants generally do not occur. Furthermore, given that only light foot travel from hunters accessing the area is expected to occur on these acres, we anticipate that any potential damage to nectaring plants from foot traffic disturbance will be extremely unlikely, and therefore considered discountable. These impacts are considered insignificant, as the disturbance would consist of monarchs being temporarily flushed by hunters, a similar reaction to other temporary disturbances that monarchs may naturally experience without long-term effects.

The potential for lead impacts to monarchs is discountable due to their diets. Adult

monarch butterflies feed on nectar. However, exposure relies on the very unlikely occurrence that lead concentrations in the soil from hunting activities reach high enough levels for uptake by plants, and in this case, it would further require uptake by milkweed and the specific plants that monarchs rely on for nectar sources. Given that bioaccumulation through plants into caterpillars or butterflies is discountable, the proposed activities are not likely to impact the monarch butterfly population.

Sensitive joint-vetch, small whorled pogonia, and swamp pink

Sensitive joint-vetch is an annual legume that typically flowers July through early October in the intertidal zone of coastal marshes where plants are flooded twice daily. The species seems to prefer the marsh edge at an elevation near the upper limit of tidal fluctuation, where soils may be mucky, sandy, or gravelly (USFWS 2010). It occurs along the edges of freshwater tidal creeks and marshes of the Rappahannock River. Sensitive joint-vetch occurs on wetland edges that are often not utilized during hunting. It is very unlikely that any deer, turkey or small game hunting would occur in this remote and wet environment.

Small whorled pogonia grows under canopies that are relatively open or near features that create long-persisting breaks in the forest canopy such as a road or a stream. It grows in mixed deciduous or mixed-deciduous/coniferous forests. They require overwintering with mycorrhizal fungi to germinate and form above ground in late August to September (USFWS 2011). It may occur at the refuge.

Swamp pink is a perennial wetland species with evergreen leaves. Swamp pink requires specific hydrologic conditions, and no populations are known to occur at Rappahannock NWR. Swamp pink occurs in wetland areas that are not often utilized during hunting

While a small, dispersed concentration of lead may be present on the landscape due to use of ammunition containing lead, it is not likely to adversely affect sensitive joint-vetch, small whorled pogonia, and swamp pink. Sharma and Dubey (2005) found that excess lead in plants causes a variety of toxic symptoms including stunted growth, chlorosis, blackening of root systems, inhibited photosynthesis, disrupted mineral nutrition and water balance, and altered plant hormones. Hunter presence will be dispersed and they are unlikely to be concentrated in the areas where these species could be found. Also, the migration of lead from soil to roots and other parts of the plant is expected to be minimal, so the use of lead for hunting activities is not likely to adversely impact these species.

Bald Eagle

After four decades of protection under the Endangered Species Act, the bald eagle

was officially removed from the federal list of endangered and threatened wildlife in 2007. However, they are still protected under the Bald and Golden Eagle Act (Eagle Act) and the Migratory Bird Treaty Act. The FWS considered potential impacts to eagles under the Refuge Improvement Act in this CD and under NEPA in the associated 2026 CatEx.

Permitting public access to any waterfront or marsh managed by the refuge holds the possibility of affecting bald eagles. Impacts may either be displacement or temporary disturbance depending on extent of use of a given site by visitors and eagles. As trees mature and forest riparian buffers are improved, sites with low concentrations will likely increase in importance to bald eagles. We will avoid potential adverse impacts to bald eagles by strictly following the management guidelines developed in consultation with the Virginia Department of Wildlife Resources and the Center for Conservation Biology. These include sight and distance setbacks from nests and concentration areas, and time-of-year restrictions.

With regards to potential impacts from lead, eagles are both predatory and engage in scavenging of carcasses and gut piles left in the environment from hunting activities. This may present a risk of lead exposure from lead fragments remaining in the carcass/gut pile (Haig et al. 2014; Church et al. 2006; Hunt et al. 2006; Pauli and Buskirk 2007; Herring et al. 2016). Other avian scavengers with similar behavior are likely to face similar exposure.

The negative impacts of lead on wildlife are well documented (Golden et al. 2016, Grade et al. 2019). Since 2021 the refuge has provided education materials and information on lead-free ammunition options for hunters, and the potential impacts lead ammunition has to wildlife and human health. The refuge continues to encourage voluntary use of lead-free ammunition for all hunts. Impacts of continued lead ammunition usage can be reduced through best management practices. For turkey, furbearers and small game, the hunted species will usually be removed from the refuge as a full carcass which will help minimize the lead ammunition left on the landscape. For handling deer carcasses, the Virginia Hunting and Trapping Regulations Digest (2025) has suggestions for reducing lead exposure including removal of the entire carcass from the field and double-bagging materials before disposal. The refuge encourages hunters to follow these practices to reduce the impact of continued use of lead ammunition on non-target wildlife during refuge hunts. Given lead ammunition impacts primarily will be tied to firearms hunting of deer, impacts are expected to be minimal across the refuge as a whole as these hunts will only occur across seven (7) of the twelve (12) hunt units on selected days.

Visitors and Users

The refuge is primarily open to all six of the Refuge System's priority public uses (hunting, fishing, wildlife observation, wildlife photography, environmental education and environmental interpretation). In 2025, over 12,000 people visited the refuge for non-consumptive nature-based recreation. That year 1,455 visitors participated in hunting and fishing (consumptive uses) on the refuge. With the addition of new hunt species, no increase in the number of conflicts among user groups is expected. Public outreach, zoning, and species/method-of-take restrictions in some locations have been used in the past to reduce conflicts among the different user groups. If conflicts arise among user groups, mitigation efforts (ie. designated times of use, limited access and reassessment of safety zones) can be implemented to ensure that the proposed action will not have significant impacts to other user groups.

Long-term Impacts

The best available science suggests that where lead ammunition use is authorized, the impacts from direct ingestion are less than significant at the population level (AFWA 2018). Biomagnification occurs when harmful substances, such as pesticides or heavy metals, accumulate at higher concentrations as they move up the food chain. Food chain biomagnification, except for the direct ingestion of lead residues, is negligible (Behan et al. 1979; Eisler 1988; Wong et al. 1978). Although lead is a known potent neurotoxin (Eisler 1988), use of lead ammunition for hunting is not expected to have meaningful impacts to wildlife population health on the refuge, in relation to the background rate of residual lead into the environment from hunting activities at large.

Population-level estimates of lead exposure and impacts on raptors are available from a number of studies. The Raptor Rehabilitation Program at the College of Veterinary Medicine at Washington State University found that 48% of bald eagles and 62% of golden eagles tested had blood lead levels considered toxic by current standards (Stauber et al. 2010). Of the bald and golden eagles with toxic lead levels, 91% of bald eagles and 58% of golden eagles were admitted to the rehabilitation facility after the end of the general deer and elk hunting seasons in December (Stauber et al. 2010). Sampling of free-flying individuals is more representative of lead levels in the eagle population rather than those found debilitated, moribund, or dead (Harmata and Restani 2013). Though recent modeling has indicated that lead poisoning suppresses population growth in eagles, it has not led to population declines (Slabe et al. 2022). NatureServe (<https://explorer.natureserve.org>) currently lists both golden eagles and bald eagles as secure populations.

Summary of Impacts

On the refuge there would be an increased number of species allowed to be hunted. Refuge staff will work closely with our state partners to offer mentor hunt opportunities as well as other targeted demographic hunts with the objective of assisting with their R3 (recruit, retrain, reactivate) efforts. The challenge of balancing multiple consumptive and non-consumptive uses all while supporting the conservation of natural resources will persist. However, refuge hunting measures and periodic assessments would allow adjustments in hunt activities.

Because of the regulatory process for harvest management in place within the FWS, the setting of hunting seasons largely outside of the breeding seasons of resident and migratory wildlife, the ability of individual refuge hunt programs to adapt refuge-specific hunting regulations to changing local conditions, and the wide geographic separation of individual refuges, we anticipate no adverse effects on resident wildlife, migratory birds, and non-hunted wildlife of by use of hunting on the refuge.

Public Review and Comment

The draft CD was available for public review and comment for 30 days from May 27, 2026 to June 26, 2026. The public was made aware of this comment opportunity through a press release and social media posting. Federally recognized tribes were contacted on January 9, 2026 to comment on proposed hunting rule changes. No comments were received. Coordination with the State of Virginia (Virginia Department of Wildlife Resources) occurred in May 2026 and a response was received on June 25, 2026. A hard copy of this document was posted at the Eastern Virginia Rivers National Wildlife Refuge Complex Headquarters at 336 Wilna Road Warsaw, Virginia 22572. It was made available electronically on the refuge website: www.fws.gov/refuge/rappahannock-river-valley.

A summary of public comments received as part of the 2026-2027 Hunting and Fishing Rulemaking process can be found in the Eastern Virginia Rivers NWRC specific categorical exclusion.

Determination

Is the use compatible?

Yes

Stipulations Necessary to Ensure Compatibility

To ensure compatibility with the refuge's purpose and the Refuge System mission, hunting can occur at the refuge in accordance with state and federal regulations and

special refuge-specific regulations (50 CFR 32.38) 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 and impacts on wildlife species will be monitored and potentially modified or eliminated if any of the program's components are found not compatible. Adherence to the regulations, as detailed in the 2026 Hunting and Recreational Fishing Plan and associated hunt-specific documents, will ensure compatibility with the purpose for which the refuge was established. The following stipulations are necessary to ensure compatibility:

- Dogs are only allowed on refuge lands/waters as associated with approved waterfowl hunting programs. Dogs are prohibited for the pursuit of other game and training on refuge lands.
- Vehicles (cars and boats) are allowed only on designated locations/roads as indicated on the refuge map. Vehicles must be parked in a manner to allow passage by other vehicles along roads and through gates. ATVs/UTVs and trailers are prohibited.
- We only allow portable tree stands and blinds for deer hunting. You must remove any tree stand at the end of the hunt day and/or end of the 2-day hunt period. No damage to trees will be allowed.
- Where lands fall within the eagle focal area, hunting is prohibited after December 14 to prevent disturbance to bald eagles during nest initiation and incubation. (USFWS 2018).
- We recommend that hunters using lead ammunition remove carcasses and gut piles from the refuge when they have a successful take of a hunted species.

Justification

In view of the above and with the provided stipulations implemented, this use has been determined to be compatible Rappahannock River Valley National Wildlife Refuge. Hunting is one of the six priority wildlife-dependent recreational uses identified in the National Wildlife Refuge System Improvement Act of 1997. As a priority use, the U.S. Fish and Wildlife Service directs us to provide recreational hunting opportunities when compatible with the FWS's mission and the original purpose of the refuge as a resting and wintering area for migrating waterfowl and other migratory birds. Hunting, as outlined in this compatibility determination, would not conflict with the national policy to maintain the biological diversity, integrity, and environmental health of the refuge. Based on available science and best

professional judgment, the FWS has determined that hunting at Rappahannock River Valley National Wildlife Refuge, in accordance with the stipulations provided here, would not materially interfere with or detract from the fulfillment of the National Wildlife Refuge System mission or the purpose of the refuge. Hunting inherently provides visitors with education of native wildlife and habitat while fostering an appreciation for the Refuge System's lands and waterways.

Signature of Determination

MARCIE
KAPSCH

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Refuge Manager Signature and Date

Signature of Concurrence

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Refuge Chief, Northeast Region Signature and Date

Mandatory Reevaluation Date

2041

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Compatibility Determination

Title

Compatibility Determination for Fishing at James River National Wildlife Refuge

Refuge Use Category

Fishing

Refuge Use Type(s)

Recreational Fishing

Refuge

James River National Wildlife Refuge

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

James River National Wildlife Refuge (NWR) was established in March 1991 as the fourth refuge established specifically for bald eagles under the authority of the Endangered Species Act. The refuge purpose from that statutory authority is:

“to conserve...fish or wildlife which are listed as endangered species or threatened species” 16 U.S.C. §1534 (Endangered Species Act of 1973).

National Wildlife Refuge System Mission

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

Description of Use

Is this an existing use?

Yes.

This compatibility determination (CD) reevaluates and replaces the 2021 CD for Fishing. The use is consistent with the 2021 Hunting and Recreational Fishing Plan and associated Environmental Assessment (EA) and Finding of No Significant Impact (2021). The previous 2021 CD was released with the draft hunt plan and EA for public

review and comment from April 9 through July 6, 2021. A total of twenty (20) unique commentors offered input to the refuge. The agency responded to those comments in the Finding of No Significant Impact.

This use is being reevaluated due to proposed changes to the refuge's fishing program as described in the 2026 Hunting and Fishing Plan, Environmental Action Statement, and Categorical Exclusion. The 2021 Hunt and Fishing Plan implemented a lead-free tackle requirement. The FWS proposes to withdraw the lead-free requirements detailed in the plan, in response to current lack of reasonable and prudent alternatives, and recent directives aimed at reducing regulations (Executive Order (E.O.) 14192, Unleashing Prosperity Through Deregulation, dated January 31, 2025; Secretarial Order (S.O.) 3421, Achieving Prosperity through Deregulation, dated February 8, 2025; and S. O. 3447: Expanding Hunting and Fishing Access, Removing Unnecessary Barriers, and Ensuring Consistency Across the Department of Interior Lands and Waters, dated January 7, 2026).

What is the use?

The use is recreational fishing at James River NWR. Fishing was identified as one of six priority public uses of the Refuge System by the Refuge System Administration Act of 1966, as amended by the Refuge System Improvement Act of 1997 (Public Law 105-57), when found to be compatible. Fishing is currently open at James River NWR.

Is the use a priority public use?

Yes

Where would the use be conducted?

Fishing is a new use at James River NWR in 2021. In 2020, the first phase of the public use area was completed and opened to the public without requiring a Special Use Permit (SUP). The public use area includes trails and structures along Powell Creek (<https://www.fws.gov/refuge/james-river>). Powell Creek is tidally influenced and fluctuates several feet. Common species in these areas include bass and catfish. The public use area at James River NWR includes an ADA accessible canoe and kayak dock, and fishing is allowed only from this dock.

Although a portion of the refuge is adjacent to the James River, fishing is not allowed as the access is far from the designated public areas and in many shoreline sites banks are steep and prone to erosion. These conditions limit access and pose safety concerns for users.

When would the use be conducted?

Fishing will be conducted year-round from sunrise to sunset. Fishing must be conducted in accordance with state regulations and will only be permitted when the

refuge is able to safely open to the public.

How would the use be conducted?

Recreational fishing will be conducted according to VADWR regulations, with some additional refuge-specific regulations. Refuge-specific regulations are designed to protect fish, wildlife, and habitat, and reduce potential conflicts among other users. State fishing licenses are required for all angling activities on the refuge. No preselection or special registrations are required. We would permit fishing by rod and reel or hook and line only.

The 2021 Hunting and Fishing Plan implemented a lead-free tackle requirement. In addition, lead-free requirements for fishing were inadvertently included in the refuge specific regulations (50 CFR 32.65(h)) and these will be removed. The FWS proposes to withdraw the lead-free requirements detailed in the plan, in response to current lack of reasonable and prudent alternatives, and recent directives aimed at reducing regulations (E.O. 14192, S.O. 3421, and S. O. 3447). The refuge will continue to encourage voluntary use of lead-free tackle.

Lead-free tackle is generally more expensive than their lead-based counterparts, though the price gap varies by product type. For fishing tackle, lead-free alternatives like tungsten, bismuth, or tin jigs can cost two to four times more than lead tackle. Tungsten, in particular, is prized for its density and performance but is much more expensive (Breuer 2025).

Why is this use being proposed or reevaluated?

Fishing is one of the priority public uses defined by the Refuge System Administration Act of 1966, as amended by the Refuge System Improvement Act of 1997 (Public Law 105-57). Department of the Interior Secretarial Order 3356 (September 15, 2017) emphasized identifying opportunities to increase outdoor recreation opportunities for all Americans, including opportunities to hunt and fish. This legitimate and appropriate use of a national wildlife refuge is generally considered compatible, as long as it does not materially interfere with or detract from the fulfillment of the Refuge System mission or the purposes of the refuge. Refuge Comprehensive Conservation Plans (CCP) further identified objectives to maintain or expand hunting and fishing opportunities and specifically stated goals to provide public fishing access at various areas throughout the refuges.

Per FWS Policy 603 FW 2.11H. 1 “We will reevaluate compatibility determinations for existing wildlife-dependent recreational uses when conditions under which the use is permitted change significantly, or if there is significant new information regarding the effects of the use, or concurrently with the preparation or revision of a comprehensive conservation plan, or at least every fifteen (15) years, whichever is earlier...” In this instance, rescinding the lead-free tackle requirement that was

implemented in the 2021 Hunting and Fishing Plan necessitated reevaluation of compatibility for this use.

Additionally expanding fishing opportunities and aligning regulations with state agencies implements S.O. 3347 Conservation Stewardship and Outdoor Recreation, S.O. 3356 Hunting, Fishing, Recreational Shooting, and Wildlife Conservation Opportunities and Coordination with States, Tribes, and Territories, and the 2025 Director's Memo for an Annual Update for the 2026-207 Hunting and Sport Fishing Seasons on National Wildlife Refuges and National Fish Hatcheries. The fishing program is administered in accordance with sound wildlife management principles and the utmost concern for public safety.

Availability of Resources

To comply with the Refuge Recreation Act (Public Law 87-714) and Refuge Improvement Act (Public Law 105-57), the Refuge Manager must determine whether sufficient resources—financial, staffing, facilities, or other infrastructure—are available to support the proposed use without materially interfering with the refuge purpose(s) or the mission of the National Wildlife Refuge System. This determination should be informed by a review of current capacity and, where applicable, the refuge's Comprehensive Conservation Plan (CCP).

Assessment of current resources and capacity

The Refuge Manager will use sound professional judgment to determine the funding and staffing needed to perform the functions necessary to ensure compatibility. These functions include trail, parking lot, and road maintenance, updating the website, maintain non-motorized boat launches, restrooms, inventory and monitoring of species, and reporting. If the refuge does not have the resources to carry out these functions, compatibility of the refuge use may be reevaluated and discontinued at that time.

The resources needed to administer this use are currently available. However, adequate levels of refuge staffing, funding, and facilities are necessary to administer this use in a manner that ensures continued compatibility (603 FW2 2.11(A.2)). Therefore, a reduction in any of these resources may prompt the Refuge Manager to reevaluate the compatibility of this use, and the Refuge Manager may decide to modify or discontinue the use.

We estimate that the recurring annual expense to administer this use is \$500.00. This includes the cost of maintenance (varies based on the amount of trail, parking lot and boat dock use by this activity) and staff time for developing materials and monitoring the use.

Impacts of changes to resources and capacity

The availability of resources is subject to change and the level of use provided may vary based on current staffing, partner support, funding, or infrastructure conditions. Costs may increase over time, in relation to changes in the costs for equipment, maintaining facilities, etc. A substantial increase to the number of requests may also create the need for additional resources to administer the use. The Refuge Manager will use sound professional judgment in evaluating whether the refuge or its partners can develop, operate, and maintain the use in a compatible manner.

For priority public uses—including hunting, fishing, wildlife observation and photography, or environmental education and interpretation—if resource conditions shift such that the refuge can no longer sustain the use in a compatible manner, the Refuge Manager may temporarily modify or suspend the use pursuant to 50 CFR 25.21(E) for a period of up to one year). If it becomes apparent that insufficient resources will be sustained into the long-term, the Refuge Manager may reevaluate the compatibility of the use and is continue the use if necessary. The public will be notified of any changes to refuge uses, including temporary modification or suspension, reevaluation of compatibility and/or discontinuing of refuge uses.

Anticipated Impacts of the Use

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

Fishing was evaluated in the environmental assessment associated with the 2021 Hunting and Recreational Fishing Plan (USFWS 2021). Fishing has been found not to significantly impact the human environment through the Finding of No Significant Impact. Additionally, fishing is being evaluated through the draft 2026 Categorical Exclusion. The analysis below is supplemental to the previous environmental effects described in those documents. The effects and impacts of the proposed use to refuge resources, whether adverse or beneficial, are those that are reasonably foreseeable and have a reasonably close causal relationship to the proposed use. This CD includes the written analyses of the environmental consequences on an affected resource only when the impacts on that resource could materially interfere or detract from the purpose for which a refuge was established and the mission of the Refuge System.

To ensure compatibility with refuge purposes and mission of the Refuge System, fishing is conducted in accordance with state and federal regulations and supplemented by refuge-specific regulations (50 CFR 32.65). However, the Refuge Manager may, upon annual review of the fishing program, impose further restrictions on fishing, recommend the refuge be closed to fishing, or further liberalize fishing regulations up to the limit of state regulations. The refuge will restrict activity if it

becomes inconsistent with other, higher priority refuge programs or endangers refuge resources or public safety. Potential impacts of fishing may include:

- Accidental or deliberate introductions of non-native species that may negatively affect native fish, wildlife, or vegetation. The refuge does not permit use of live minnows in order to prevent the likelihood of introductions of non-native fish.
- Birds may ingest sinkers, hooks, lures, and fishing line. Ingested tackle may cause damage or penetration of the mouth or other parts of the digestive tract, resulting in impaired function or death.
- Negative impacts on water quality from human waste and litter.
- Bank and trail erosion from unauthorized human activity, which may increase aquatic sediment loads of streams and rivers or alter habitat/vegetation in ways harmful to fish or other wildlife.
- Conflicts between anglers and other user groups.

To the best of our knowledge, there are negligible impacts to wildlife populations, including special status species, or habitats from lead tackle. Fishing is not expected to meaningfully affect wildlife population health on the refuge, in relation to the background rate of residual lead into the environment from fishing activities at large. The best available science suggests that where lead tackle use is authorized, impacts to wildlife from direct ingestion are observable but would not approach a threshold of significance at the population level (AFWA 2018), while food chain biomagnification is negligible (Behan et al. 1979; Eisler 1988; Wong et al. 1978).

The refuge continues to educate anglers on lead-free alternatives and encourage voluntary use of lead-free tackles for fishing. The nature of fishing on the refuge reduces the potential that wildlife will be at great risk from lead exposure, especially given the large area for fishing, multiple access sites, and the smaller number of anglers. The number of individuals of a species that may be exposed to toxic amounts of lead are so small that we do not anticipate any long-term population level effects to wildlife residing on or migrating through the refuge. For more information on the effects of lead as a result of fishing, including threatened, endangered, and special status species, habitat, and the human environment, see the 2021 Eastern Virginia Rivers National Wildlife Refuge Complex Hunting and Recreational Fishing Plan and associated Environmental Assessment.

Short-term impacts

Vegetation and Soils

The current number of anglers comprises a small fraction of the refuge's total visitation. Negative impacts of recreational fishing include the temporary trampling of vegetation which can lead to plant clearing and increased erosion. To reduce vegetation disturbance and potential erosion, we are limiting fishing access in James River to designated docks and/or personal watercraft. With fishing limited to designated areas soils and vegetation are predicted to be minimally disturbed by fishing in the refuge.

Lead availability in some wetlands and waterways may exist through anglers' use of lead sinkers and jigs for fishing. "Sinkers" are weights of various sizes and shapes used to sink a fishing line below the surface of the water; "jigs" are weighted hooks, often brightly painted or otherwise decorated, used as lures in angling. Other fishing tackle components may contain lead as well. When lost or inadvertently discarded, lead fishing gear can remain in the bottom substrate.

Water Resources

Paths used by anglers can affect the hydrology of an area by altering drainage patterns. Some anglers may walk off trail to access a fishing area, thereby creating new trails and affecting drainage. However, since fishing is only designated fishing docks or by hand-launchable boats with electric motors, canoes, or kayaks or similar vessels, these effects will be lessened. The recreational fishing program would not contribute to pollution per any federal or state water quality standards by contributing pollutants to waterways. At the anticipated levels of use, fishing is not expected to have any adverse effects on water resources.

Fish Species

Recreational fishing could potentially cause negative impacts to fish populations if it occurs at unsustainably high levels or is not managed properly. Potential impacts to fish populations from fishing include direct mortality from harvest, injury to fish caught and released, changes in age and size class distribution, changes in reproductive capacity and success, loss of genetic diversity, altered behavior, and changes in ecosystems and food webs (Lewin et al. 2006, Klein 1993). While fishing does remove individuals from the population, we do not anticipate increased fishing opportunities will affect the fish population as a whole.

According to the 2015-2016 Angler Survey, two thirds of anglers partake in catch and release and rarely take. The most popular species targeted by anglers include blue catfish, largemouth bass, striped bass and crappie (VADWR 2016). Catch rates varied over all months and by species throughout the survey time-period. Harvest rates of all species were very low except for hickory shad and white perch (VADWR 2016). Blue

catfish, not a native species, were caught and harvested the most (VADWR 2018). High numbers of channel catfish, hickory shad and white perch were also harvested (VADWR 2016). Largemouth bass were caught in very high numbers but were rarely harvested. Largemouth bass and blue catfish are common and have increasing numbers found in James River waters (VADWR 2016). Anadromous fish including American shad, Atlantic sturgeon, blueback and alewife have declining populations throughout the state and are not legal for take in Virginia (Brittle 2020).

The fishing program is designed to be sustainable through time, given relatively stable conditions, particularly because of close coordination with VADWR. Anglers must abide by the state's seasons, catch limits, and regulations, which were designed to protect the state's fish populations. The state fisheries biologist suggests that recreational fishing has a very low impact on local Virginia fish populations (Brittle 2020). The refuge's fishing pressure is projected to be minimal and sustainable.

In the 2021 Hunting and Fishing Plan and associated EA, the FWS decided to implement a lead tackle ban effective on September 1, 2026. The proposed removal of the lead-free tackle requirement is not expected to meaningfully impact fish population health on the refuge. Although lead is a potent neurotoxin (Eisler 1988), Rattner et al. (2008) did not find any reports in the scientific literature of lead toxicosis resulting from lead fishing tackle in any species of fish, amphibians, or invertebrates. A literature review completed by the Association of Fish and Wildlife Agencies (2018) likewise failed to find any such reports. Therefore, the continued use of lead tackle on the refuge likely will not have negative impacts on refuge fish populations.

Non-Target Species

Fishing has the potential to increase disturbance to other wildlife that use fishable waters, including waterfowl and wading birds. Human activity, including walking trails and boat use, has the potential to affect the behavior, distribution, and abundance of waterbirds due to disturbance. Several studies have examined the effects of recreation on birds using habitats adjacent to trails and roads through wildlife refuge and coastal habitats in the eastern United States. Overall, the existing research demonstrates that disturbance from recreational activities has at least temporary effects on the behavior and movement of birds and other animals within a habitat or localized area. Presence and increased trail density as caused by fishing may cause bird movement and nesting in habitats that are less disturbed (Burger 1981, Klein et al. 1995, Burger and Gochfeld 1998, Thompson 2015) in addition to slower development in some songbird species during periods of increased public use (Remacha et al. 2016). Mammals tend to not be as impacted as birds and continue to use trails despite increased public use (Kays et al. 2017). Noise caused by visitors also resulted in increased levels of disturbance (Burger 1986, Klein 1993, Burger and Gochfeld 1998). An incidental benefit to upland habitats

and associated species would derive from careful, strategic management of this fishing program. Public awareness and appreciation of the refuge, its habitats, and resources would inspire some to volunteer or in other ways support the refuge needs and conservation of resources on the landscape in general.

Increases in annual visitor numbers during the daytime (public use sites would be open only from official sunrise to sunset) will surely result from parking areas, informational kiosks, and other planned activities described herein, although it is difficult to predict a frequency or rate. Visitors at these sites may flush rafting waterfowl or eagles hunting the marshes within view of a trail, launch, or pier; although we anticipate that in the winter public use at these locations would be less than moderate, at least in the early years after opening. Higher rates of public use would occur during the warmer months, when most waterfowl are on northern breeding grounds. Wetland species likely to be disturbed and flushed during the warmer months include bald eagle (fewer than in winter), belted kingfisher, mallard, great blue heron, and basking turtles. The sites are not particularly sensitive, rare, or in close proximity to nest areas, and there are protected and secluded areas nearby where disturbed wildlife can relocate to. Disturbance is, therefore, anticipated to be minor, temporary, and infrequent and would close refuge areas, as needed, to fishing and boating if sensitive nest sites were ever to occur.

Paths from parking areas to fishing access have the potential to disturb forest interior dwelling bird species. Direct impacts on wildlife in the form of disturbance can be expected wherever humans have access to an area, and the degree may vary depending on the habitat type. In general, human presence disturbs most wildlife, which typically results in a temporary displacement without long-term effects on individuals or populations. Some species, such as wood thrush, will avoid areas frequented by people, such as developed trails and structures, while other species, particularly highly social species such as eastern tufted titmouse, Carolina chickadee, or Carolina wren, seem unaffected or even drawn to a human presence. When visitors approach too closely to nests, they may cause the adult bird to flush exposing the eggs to weather events or predators. Provided that visitor use is confined to designated areas, disturbance during the breeding season will be limited to those areas. Overall, direct impacts from access to fishing areas will be greatly reduced with our facilities avoiding area-sensitive habitats (interiors of grasslands and forests) and being confined to a 300-foot edge zone.

A potential direct negative impact exists for wetland and open waterbird species (such as osprey, herons, and waterfowl) from lost fishing gear; specifically, hooks, lures, and litter, or becoming entangled in fishing line or hooks. The extent to which these bird species are impacted by fishing tackle currently is unknown. We will continue to work with our fisheries assistance office and the state in implementing a

public education and outreach program on these issues.

Fishing and boat traffic in adjacent areas of James River NWR are already well-established activities and are not predicted to cause much additive disturbance to local wildlife. Additionally, since fishing actions will be limited to designated docks, non-motorized or electric boats effects on other wildlife will be limited. In addition, fishing is currently allowed in nearby state waters, and we do not expect the limited opportunities available at the refuge to result in a dramatic change from existing conditions.

In the 2021 Hunting and Fishing Plan and associated EA, the FWS decided to implement a lead tackle ban on the refuge effective on September 1, 2026. The proposed removal of the lead-free tackle requirement may impact wildlife health, but the continued use of lead tackle on the freshwater dock is not expected to meaningfully impact wildlife populations because of the amount of discarded lead in the environment at this locations is very small compared to the background rate of fishing activities in the James River watershed overall.

Residues from lead-based fishing gear can cause negative health effects, up to and including mortality, when they are unintentionally ingested by wildlife. The best available science suggests these impacts from direct ingestion where lead use is authorized are less than significant at the population level (AFWA 2018). Lead fishing tackle still represents a potential source of lead poisoning in susceptible birds, primarily loons and swans (Grade et al. 2019, Pokras and Chafel 1992, Rattner et al. 2008, Strom et al. 2009) and for diving waterbirds where lead fishing tackle remains in the sediment (Franson et al. 2003, Grade et al. 2019, Pokras et al. 2009, Scheuhammer and Norris 1996). These species may also be at risk for lead poisoning from lead tackle ingestion.

The continued use of lead tackle on the refuge and the associated impacts to the environment resulting from fishing opportunities will have a negligible cumulative impact on lead in the environment when compared to fishing activities allowed in the local and regional area. The refuge will continue to encourage the voluntary use of lead-free tackle in order to reduce impacts to wildlife and habitat.

Threatened and Endangered Species

Federal endangered or threatened species that are found (or may be found) within the acquisition boundary of the refuge include Atlantic sturgeon, Indiana bat, Northern long-eared bat, Eastern black rail, sensitive joint-vetch, small whorled pogonia, and swamp pink. Proposed species include the tricolored bat and the monarch butterfly. Special federal status species include bald eagles. Overall, it is expected that this use will not conflict with recovery or protection of these species. There have been no traceable issues to date. A detailed Intra-Service Section 7

Evaluation can be found in Appendix J. It provides further analysis on potential impacts, including from lead, to the species listed below. A summary of potential impacts is included here.

Atlantic sturgeon

The Chesapeake Bay Atlantic sturgeon population is listed as federally endangered. Atlantic sturgeon utilize large coastal rivers and estuaries including the James River as important spawning grounds. Virginia Commonwealth University and Virginia Institute of Marine Science have conducted trawl surveys and confirmed fry and adult Atlantic sturgeon offshore of James River NWR. While Atlantic sturgeon are protected by the Endangered Species Act, recreational anglers have caught few migrating sturgeon in their nets while catfishing. However, this is not significant and is much less than commercial fisherman bycatch and boat strikes which are not negligible (Brittle 2020). However, anglers are not allowed to target them. It is unlikely but possible for incidental take of this species. Potential impacts to Atlantic Sturgeon were coordinated separately with the Virginia Department of Wildlife Resources. The refuge does not anticipate any impacts to Atlantic sturgeon as a result of the fishing program, including from the use of lead fishing tackle. Given the relatively small number of anglers using the waterbodies on the refuge, the likelihood that any discarded lead tackle would concentrate to the level that it negatively impacts Atlantic sturgeon is extremely low.

Indiana bat, Northern long-eared bat and tricolored bat

Indiana, tri-colored and Northern long-eared bats primarily use mines and caves in the winter to hibernate in the western part of the state and use upland forests to forage and roost throughout the rest of the year. Fishing is not allowed on the refuge before sunrise and after sunset when bats are actively out feeding. Fishing does not involve any of the typical disturbances to bats (loud noise, lights, fire, tree removal, entering a hibernaculum) so disturbance events would be unlikely.

The potential for bats to be adversely affected by lead bioaccumulation is discountable due to their diet and foraging habits. Lead tackle fragments would have to break down in the soil to be taken up by plants near the area in which the fragments fall on or penetrate the soil surface. Typically, however, plants do not take heavy metals up until they have reached critical thresholds in the soil (Sharma and Dubey 2005). If lead is taken up by plants, it is mainly through the root system and partly in minor amounts through the leaves. Inside the plants lead accumulates primarily in the root, but some is translocated to the aerial portions. Larvae of certain herbivorous insect species could ingest some of the lead when they eat the exposed plants. Some of the insects could then be consumed by bats. The bats' diets are comprised of insects such as moths, flies, wasps, leafhoppers, caddisflies and

beetles, only some of which are herbivorous. In addition, bats are transitory in nature and will not consume their entire diets on the refuge area. Considering the chain of events that are necessary for exposure and the small amount of lead that would contribute to lead concentrations in refuge soils, it is unlikely that bats that occur on refuges will consume lead derived from tackle discarded or lost by anglers on the refuge. Impacts are not likely to adversely affect Indiana bats or Northern long-eared bats and are not likely to jeopardize the continued existence of tricolored bats.

Eastern black rail

The Eastern black rail is a sparrow-sized, secretive marsh bird. Eastern black rail habitat can be tidally or non-tidally influenced, and range in salinity from salt to brackish to fresh but must be densely vegetated. The eastern black rail may occur at James River NWR, but it hasn't been confirmed. Fishing activity might cause short-term disturbance due to presence of people out on the water and piers while rails are in adjacent dense marsh. This disturbance would be minimal in nature and would not greatly alter rails natural behavior. Damage to rail habitat from fishing would be negligible as it is unlikely to occur at all with fisherman restricted to a few designated locations and these are mostly piers.

The potential for lead impacts to Eastern black rails is discountable because of the bird's preferred habitat which can be tidally or non-tidally influenced, and range in salinity from salt to brackish to fresh but must be densely vegetated. Since fishing, including the use of lead tackle, is highly unlikely to overlap with Eastern black rail in time or space, this species is not likely to be adversely affected by the proposed activities.

Sensitive joint-vetch, small whorled pogonia, and swamp pink

Sensitive joint-vetch is an annual legume that typically flowers July through early October in the intertidal zone of coastal marshes where plants are flooded twice daily. The species seems to prefer the marsh edge at an elevation near the upper limit of tidal fluctuation, where soils may be mucky, sandy, or gravelly (USFWS 2010). the refuge area, occurs only along the edges of freshwater tidal creeks and marshes. Fishing from the refuge only occurs at a few designated locations that fall within vetch habitat, and these are mostly pier, thus damage to vetch from fishing associated foot traffic is not anticipated. The refuge also does not allow the launching of larger gas-powered vessels and thus little wake from vessels launched at the refuge is anticipated.

Small whorled pogonia grows under canopies that are relatively open or near features that create long-persisting breaks in the forest canopy such as a road or a stream. It grows in mixed deciduous or mixed-deciduous/coniferous forests. They require overwintering with mycorrhizal fungi to germinate and form above ground in late

August to September (USFWS 2011). It may occur at the refuge.

Swamp pink is a perennial wetland species with evergreen leaves. Swamp pink requires specific hydrologic conditions, and no populations are known to occur at James River NWR. It is very unlikely that any fishing would occur in potential swamp pink habitat.

While a small, dispersed concentration of lead may be present on the landscape due to use of tackle containing lead, it is not likely to adversely affect sensitive joint-vetch, small whorled pogonia, and swamp pink. Sharma and Dubey (2005) found that excess lead in plants causes a variety of toxic symptoms including stunted growth, chlorosis, blackening of root systems, inhibited photosynthesis, disrupted mineral nutrition and water balance, and altered plant hormones. Angler presence will be dispersed and they are unlikely to be concentrated in the areas where these species could be found. Also, the migration of lead from soil to roots and other parts of the plant is expected to be minimal, so the use of lead for fishing activities is not likely to adversely impact these species.

Monarch butterfly

Monarch butterflies use the refuge grasslands, wetlands, old fields, agricultural margins, and roadsides during spring and fall migration, as well as during the spring and summer breeding season. Fishing activities have not been shown to have negative impacts on monarch breeding or migration. Anglers are less likely to walk through monarch butterfly habitat, as they will use established trails and access points.

Anglers are most likely to use tracts through forested parts of the refuge, where monarchs and their nectaring plants generally do not occur. Furthermore, given that only light foot travel from anglers accessing the area is expected to occur on these acres, we anticipate that any potential damage to nectaring plants from foot traffic disturbance will be extremely unlikely, and therefore considered discountable. These impacts are considered insignificant and discountable, as the disturbance would consist of monarchs being temporarily flushed by anglers, a similar reaction to other temporary disturbances that monarchs may naturally experience without long-term effects. Anglers are not likely to overlap with areas where monarch and their plants are known to occur.

The potential for lead impacts to monarchs is discountable due to their diets. Adult monarch butterflies feed on nectar. However, exposure relies on the very unlikely occurrence that lead concentrations in the soil from fishing activities reach high enough levels for uptake by plants, and in this case, it would further require uptake by milkweed and the specific plants that monarchs rely on for nectar sources. Given that bioaccumulation through plants into caterpillars or butterflies is discountable, the

proposed activities are not likely to impact the monarch butterfly population.

Bald Eagle

After four decades of protection under the Endangered Species Act, the bald eagle was officially removed from the federal list of endangered and threatened wildlife in 2007. However, they are still protected under the Bald and Golden Eagle Act (Eagle Act) and the Migratory Bird Treaty Act. The FWS considered potential impacts to eagles under the Refuge Improvement Act in this CD and under NEPA in the associated 2026 CatEx.

Permitting public access to any waterfront or marsh managed by the refuge holds the possibility of affecting bald eagles. Impacts may either be displacement or temporary disturbance depending on extent of use of a given site by visitors and eagles. As trees mature and forest riparian buffers are improved, sites with low concentrations will likely increase in importance to bald eagles. We will avoid potential adverse impacts to bald eagles by strictly following the management guidelines developed in consultation with the Virginia Department of Wildlife Resources and the Center for Conservation Biology. These include sight and distance setbacks from nests and concentration areas, and time-of-year restrictions.

With regards to potential impacts from lead, eagles are both predatory and engage in scavenging of fish carcasses and gut piles left in the environment from fishing activities. This may present a risk of lead exposure from lead fragments remaining in the carcass/gut pile (Haig et al. 2014; Church et al. 2006; Hunt et al. 2006; Pauli and Buskirk 2007; Herring et al. 2016). Other avian scavengers with similar behavior are likely to face similar exposure.

Visitors and Users

James River NWR is open to all six of the System's priority public uses (hunting, fishing, wildlife observation, wildlife photography, environmental education and interpretation). In 2025, approximately 5,790 people visited the refuge for non-consumptive nature-based recreation. Over 750 visitors participated in hunting and fishing (consumptive uses) on the refuge. Of that participation, fishing accounted for more than 75 percent of those visits.

Fishing occurs in designated areas and is not expected to cause significant conflicts with other user groups. Expanded fishing opportunities would positively contribute to appreciation and protection of fish and wildlife, both on and off the refuge. The beneficial impacts of providing this wildlife-dependent activity, with some modest increases, include helping meet the existing and future demands for outdoor recreation and education. Only negligible, short-term impacts to user groups have

occurred and are anticipated to occur in the future. If conflicts arise among user groups, mitigation efforts can be implemented to ensure that the proposed action will not have significant impacts to other user groups. Mitigations measures may include providing additional education and outreach, providing additional sanitary facilities, or creating zones to separate groups of users.

Long-term impacts

The refuge fishing program is designed to be sustainable, given relatively stable conditions, particularly because of close coordination with the state. Additionally, the proportion of the refuge's harvest of these species is negligible when compared to local, regional, and statewide populations and harvest. Thus, we anticipate no detrimental, long-term impacts from fishing on fish, non-target wildlife, listed species, abiotic resources, or visitor use and experience on the refuge.

Public Review and Comment

The draft CD was available for public review and comment for 30 days from May 27, 2026 to June 26, 2026. The public was made aware of this comment opportunity through a press release and social media posting. Federally recognized tribes were contacted on January 9, 2026 to comment on proposed hunting rule changes. No comments were received. Coordination with the State of Virginia (Virginia Department of Wildlife Resources) occurred in May 2026 and a response was received on June 25, 2026. A hard copy of this document was posted at the Eastern Virginia Rivers National Wildlife Refuge Complex Headquarters at 336 Wilna Road Warsaw, Virginia 22572. It was made available electronically on the refuge website: www.fws.gov/refuge/james-river.

A summary of public comments received as part of the 2026-2027 Hunting and Fishing Rulemaking process can be found in the Eastern Virginia Rivers NWRC specific categorical exclusion

Determination

Is the use compatible?

Yes

Stipulations Necessary to Ensure Compatibility

To ensure compatibility with the refuge's purpose and the Refuge System mission, fishing can occur at the refuge in accordance with state and federal regulations and special refuge-specific regulations (50 CFR 32.38) to ensure that wildlife and habitat management goals are achieved, and that the program is providing a safe, high quality

fishing experience for participants. This fishing program and impacts on wildlife species will be monitored and potentially modified or eliminated if any of the program's components are found not compatible. Adherence to the regulations, as detailed in the 2026 Hunting and Recreational Fishing Plan and associated hunt-specific documents, will ensure compatibility with the purpose for which the refuge was established. The following stipulations are necessary to ensure compatibility:

- All activities will comply with the Bald Eagle Protection Guidelines for Virginia, jointly developed by the U.S. Fish and Wildlife Service and the Virginia Department of Wildlife Resources, in consultation with the center for Conservation Biology.
- Only use of non-motorized or electric boats are allowed when fishing from watercraft.
- Fishing will be permitted only in designated areas to prevent erosion and degradation of wetlands and water quality.

Justification

Fishing is a priority public use in the Refuge System through which the public can develop an appreciation for fish and wildlife and reinforced as a priority use by Secretarial Order 3356 (September 15, 2017). The FWS's policy is to provide expanded opportunities for wildlife dependent public uses when compatible and consistent with sound fish and wildlife management and ensure that they receive enhanced attention during planning and management. The Refuge System Improvement Act of 1997 identifies fishing as a priority public use. Priority public uses are to receive enhanced consideration when developing goals and objectives for refuges if they are determined to be compatible. Providing fishing opportunities will promote public appreciation and support for the refuge. Stipulations above will ensure control and provide management flexibility should detrimental impacts develop. Allowing this use furthers the mission of the Refuge System by providing a wildlife dependent recreational use for benefit of the American public while conserving fish, wildlife, and plant resources. This activity is a compatible use that will not materially interfere with or detract from the mission of the Refuge System or the purposes for which the refuge was established.

Signature of Determination

MARCIE
KAPSCH

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MARCIE KAPSCH
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Refuge Manager Signature and Date

Signature of Concurrence

MARCIA
PRADINES LONG

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PRADINES LONG
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Refuge Chief, Northeast Region Signature and Date

Mandatory Reevaluation Date

2041

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Compatibility Determination

Title

Compatibility Determination for Fishing at
Plum Tree Island National Wildlife Refuge

Refuge Use Category

Fishing

Refuge Use Type(s)

Recreational Fishing

Refuge

Plum Tree Island National Wildlife Refuge

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

Plum Tree Island National Wildlife Refuge (NWR) was established in 1972 under authority of the Migratory Bird Conservation Act (16 U.S.C. § 715d), the Fish and Wildlife Act of 1956 (16 U.S.C. 742f(a)(4) and (b)(1)), and the Transfer of Certain Real Property for Wildlife, or other Purposes (16 U.S.C. 667b). The refuge purposes from these statutory authorities are:

“...for use as an inviolate sanctuary, or for any other management purpose, for migratory birds” (Migratory Bird Conservation Act, 16 U.S.C. § 715d));

“...for the development, advancement, management, conservation, and protection of fish and wildlife resources...” (Fish and Wildlife Act of 1956, 16 U.S.C. 742f(a)(4)); and

with “... particular value in carrying out the national migratory bird management program” (16 U.S.C. 667b).

National Wildlife Refuge System Mission

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

Description of Use

Is this an existing use?

Yes.

This compatibility determination (CD) reevaluates and replaces the 2021 CD for Fishing. The use is consistent with the 2021 Hunting and Recreational Fishing Plan and associated Environmental Assessment (EA) and Finding of No Significant Impact (2021). The previous 2021 CD was released with the draft hunt plan and EA for public review and comment from April 9 through July 6, 2021. A total of 20 unique commentors offered input to the refuge. The agency responded to those comments in the Finding of No Significant Impact.

This use is being reevaluated due to proposed changes to the refuge's fishing program as described in the 2026 Hunting and Fishing Plan, Environmental Action Statement, and Categorical Exclusion. The 2021 Hunt Plan implemented a lead-free tackle requirement. The FWS proposes to withdraw the lead-free requirements detailed in the plan, in response to current lack of reasonable and prudent alternatives, and recent directives aimed at reducing regulations (Executive Order (E.O) 14192, Unleashing Prosperity Through Deregulation, dated January 31, 2025; Secretarial Order (S.O.) 3421, Achieving Prosperity through Deregulation, dated Feb 8, 2025; and S. O. 3447: Expanding Hunting and Fishing Access, Removing Unnecessary Barriers, and Ensuring Consistency Across the Department of Interior Lands and Waters, dated January 7, 2026).

What is the use?

The use is recreational fishing at Plum Tree Island NWR. Fishing was identified as one of six priority public uses of the Refuge System by the Refuge System Administration Act of 1966, as amended by the Refuge System Improvement Act of 1997 (Public Law 105-57), when found to be compatible. Fishing is currently open at Plum Tree Island NWR.

Is the use a priority public use?

Yes

Where would the use be conducted?

Fishing regularly occurs in the waters surrounding Plum Tree Island NWR (www.fws.gov/refuge/plum-tree-island). Fishing is allowed from boats anchored in FWS jurisdictional bottoms within the inner-tidal zone of Plum Tree Island NWR, **except** along the southeast portion of the near shore designated as a Danger Zone (and marked with day markers). Fishing at Plum Tree Island NWR will be allowed from up to three structures (blinds) located near the shores of Cow Island. Cow Island is

the only portion of the island outside of the Formerly Used Defense site. These structures will be shared seasonally between user groups, with allowances for waterfowl hunting during select days of the fall and winter months, and fishing during spring and summer months (April through August). The two 10-foot by 5-foot elevated structures (hunt/fish blinds) are to be updated and constructed with pilings and pressure-treated wood to fully stabilize the blinds in the harsh conditions of the lower Chesapeake Bay.

Shoreline fishing will be prohibited at Plum Tree Island NWR, as to not disturb migrating, nesting and foraging shorebirds and to avoid negatively affecting salt marsh vegetation. The available beach on Cow Island is minimal at a high tide and boat landing or public use during this time could damage salt marsh vegetation. The blinds are in the coves of Cow Island that offer a better opportunity to catch fish. The justification for allowing the designated fishing blinds at Cow Island aligns with our ability to offer an approved public use that can be managed to mitigate impacts within a very small footprint. No additional locations are offered, as there are many opportunities for fishing in adjacent state waters and non-refuge, public fishing piers and docks.

When would the use be conducted?

Fishing will be conducted year-round from sunrise to sunset. At Plum Tree Island NWR, we will allow fishing from designated blinds from April through August, and shoreline fishing is prohibited. Those fishing from a boat would follow state guidelines. Fishing must be conducted in accordance with state regulations and will only be permitted when the refuge is able to safely open to the public.

How would the use be conducted?

Recreational fishing will be conducted according to VADWR regulations, with some additional refuge-specific regulations. Refuge-specific regulations are designed to protect fish, wildlife, and habitat, and reduce potential conflicts among other users. State fishing licenses are required for all angling activities on the refuge. No preselection or special registrations are required. We would permit fishing by rod and reel or hook and line only.

The 2021 Hunting and Fishing Plan implemented a lead-free tackle requirement. The FWS proposes to withdraw the lead-free requirements detailed in the plan, in response to current lack of reasonable and prudent alternatives, and recent directives aimed at reducing regulations (E.O. 14192, S.O. 3421, and S. O. 3447). The refuge will continue to encourage voluntary use of lead-free tackle.

Why is this use being proposed or reevaluated?

Fishing is one of the priority public uses defined by the Refuge System Administration Act of 1966, as amended by the Refuge System Improvement Act of 1997 (Public Law

105-57). Department of the Interior Secretarial Order 3356 (September 15, 2017) emphasized identifying opportunities to increase outdoor recreation opportunities for all Americans, including opportunities to hunt and fish. This legitimate and appropriate use of a national wildlife refuge is generally considered compatible, as long as it does not materially interfere with or detract from the fulfillment of the Refuge System mission or the purposes of the refuge. Refuge Comprehensive Conservation Plans (CCP) further identified objectives to maintain or expand hunting and fishing opportunities and specifically stated goals to provide public fishing access at various areas throughout the refuge.

Per FWS Policy 603 FW 2.11H. 1 “We will reevaluate compatibility determinations for existing wildlife-dependent recreational uses when conditions under which the use is permitted change significantly, or if there is significant new information regarding the effects of the use, or concurrently with the preparation or revision of a comprehensive conservation plan, or at least every fifteen (15) years, whichever is earlier...” In this instance, rescinding the lead-free tackle requirement for that was implemented in the 2021 Hunting and Fishing Plan necessitated reevaluation of compatibility for this use.

Additionally expanding fishing opportunities and aligning regulations with state agencies implements S.O. 3347 Conservation Stewardship and Outdoor Recreation, S.O. 3356 Hunting, Fishing, Recreational Shooting, and Wildlife Conservation Opportunities and Coordination with States, Tribes, and Territories, and the 2025 Director’s Memo for an Annual Update for the 2026-2027 Hunting and Sport Fishing Seasons on National Wildlife Refuges and National Fish Hatcheries. The fishing program is administered in accordance with sound wildlife management principles and the utmost concern for public safety.

Availability of Resources

To comply with the Refuge Recreation Act (Public Law 87-714) and Refuge Improvement Act (Public Law 105-57), the Refuge Manager must determine whether sufficient resources—financial, staffing, facilities, or other infrastructure—are available to support the proposed use without materially interfering with the refuge purpose(s) or the mission of the National Wildlife Refuge System. This determination should be informed by a review of current capacity and, where applicable, the refuge’s Comprehensive Conservation Plan (CCP).

Assessment of current resources and capacity

The Refuge Manager will use sound professional judgment to determine the funding and staffing needed to perform the functions necessary to ensure compatibility. These functions specific to Plum Tree Island updating the website, maintain designated fishing locations at the Cow Island Unit, and reporting. If the refuge does

not have the resources to carry out these functions, compatibility of the refuge use may be reevaluated and discontinued at that time.

The resources needed to administer this use are currently available. However, adequate levels of refuge staffing, funding, and facilities are necessary to administer this use in a manner that ensures continued compatibility (603 FW2 2.11(A.2)). Therefore, a reduction in any of these resources may prompt the Refuge Manager to reevaluate the compatibility of this use, and the Refuge Manager may decide to modify or discontinue the use.

We estimate that the recurring annual expense to administer this use is not more than \$100. This includes the cost of maintenance of the fishing platforms and staff time for developing materials and monitoring the use.

Impacts of changes to resources and capacity

The availability of resources is subject to change and the level of use provided may vary based on current staffing, partner support, funding, or infrastructure conditions. Costs may increase over time, in relation to changes in the costs for equipment, maintaining facilities, etc. A substantial increase to the number of requests may also create the need for additional resources to administer the use. The Refuge Manager will use sound professional judgment in evaluating whether the refuge or its partners can develop, operate, and maintain the use in a compatible manner.

For priority public uses—including hunting, fishing, wildlife observation and photography, or environmental education and interpretation—if resource conditions shift such that the refuge can no longer sustain the use in a compatible manner, the Refuge Manager may temporarily modify or suspend the use pursuant to 50 CFR 25.21(E) for a period of up to one year). If it becomes apparent that insufficient resources will be sustained into the long-term, the Refuge Manager may reevaluate the compatibility of the use and discontinue the use if necessary. The public will be notified of any changes to refuge uses, including temporary modification or suspension, reevaluation of compatibility and/or discontinuing of refuge uses.

Anticipated Impacts of the Use

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

Fishing was evaluated in the environmental assessment associated with the 2021 Hunting and Recreational Fishing Plan (USFWS 2021). Fishing has been found not to significantly impact the human environment through the Finding of No Significant Impact. Additionally, fishing is being evaluated through the draft 2026 Categorical Exclusion. The analysis below is supplemental to the previous environmental effects described in those documents. The effects and impacts of the proposed use to refuge resources, whether adverse or beneficial, are those that are reasonably foreseeable

and have a reasonably close causal relationship to the proposed use. This CD includes the written analyses of the environmental consequences on an affected resource only when the impacts on that resource could materially interfere or detract from the purpose for which a refuge was established and the mission of the Refuge System.

To ensure compatibility with refuge purposes and mission of the Refuge System, fishing is conducted in accordance with state and federal regulations and supplemented by refuge-specific regulations (50 CFR 32.65). However, the Refuge Manager may, upon annual review of the fishing program, impose further restrictions on fishing, recommend the refuge be closed to fishing, or further liberalize fishing regulations up to the limit of state regulations. The refuge will restrict activity if it becomes inconsistent with other, higher priority refuge programs or endangers refuge resources or public safety. Potential impacts of fishing may include:

- Accidental or deliberate introductions of non-native species that may negatively affect native fish, wildlife, or vegetation. The refuge does not permit use of live minnows in order to prevent the likelihood of introductions of non-native fish.
- Birds may ingest sinkers, hooks, lures, and fishing line. Ingested tackle may cause damage or penetration of the mouth or other parts of the digestive tract, resulting in impaired function or death.
- Negative impacts on water quality from human waste and litter and motorboats.
- Bank and trail erosion from human activity, which may increase aquatic sediment loads or alter habitat/vegetation in ways harmful to fish or other wildlife.
- Conflicts between anglers and other user groups.

To the best of our knowledge, there are negligible impacts to wildlife populations, including special status species, or habitats from lead fishing tackle. Fishing is not expected to meaningfully affect wildlife population health on the refuge, in relation to the background rate of residual lead into the environment from fishing activities at large. The best available science suggests that where lead use is authorized, impacts to wildlife from direct ingestion are observable but would not approach a threshold of significance at the population level (AFWA 2018), while food chain biomagnification is negligible (Behan et al. 1979; Eisler 1988; Wong et al. 1978).

The refuge continues to educate anglers on lead-free alternatives and encourage voluntary use of lead-free tackles for fishing. The nature of fishing on the refuge

reduces the potential that wildlife will be at great risk from lead exposure, especially given the large area for fishing, multiple access sites, and the smaller number of anglers. The number of individuals of a species that may be exposed to toxic amounts of lead are so small that we do not anticipate any long-term population level effects to wildlife residing on or migrating through the refuge. For more information on the effects of lead as a result of fishing, including threatened, endangered, and special status species, habitat, and the human environment, see the 2021 Eastern Virginia Rivers National Wildlife Refuge Complex Hunting and Recreational Fishing Plan and associated Environmental Assessment.

Short-term impacts

Vegetation and Soils

The current number of anglers comprises a small fraction of the refuge's total visitation. Negative impacts of recreational fishing include the temporary trampling of vegetation which can lead to plant clearing and increased erosion. At Plum Tree Island NWR, we will allow fishing from designated blinds from April through August, and shoreline fishing is prohibited. With fishing limited to designated areas soils and vegetation are predicted to be minimally disturbed by fishing in the refuge.

Lead availability in some wetlands and waterways may exist through anglers' use of lead sinkers and jigs for fishing. "Sinkers" are weights of various sizes and shapes used to sink a fishing line below the surface of the water; "jigs" are weighted hooks, often brightly painted or otherwise decorated, used as lures in angling. Other fishing tackle components may contain lead as well. When lost or inadvertently discarded, lead fishing gear can remain in the bottom substrate.

Water Resources

Paths used by anglers can affect the hydrology of an area by altering drainage patterns. Some anglers may walk off trail to access a fishing area, thereby creating new trails and affecting drainage. However, since fishing is only designated on fishing docks or boat, these effects will be lessened. The recreational fishing program would not contribute to pollution per any federal or state water quality standards by contributing pollutants to waterways. At the anticipated levels of use, fishing is not expected to have any adverse effects on water resources.

Fish Species

Recreational fishing could potentially cause negative impacts to fish populations if it occurs at unsustainably high levels or is not managed properly. Potential impacts to fish populations from fishing include direct mortality from harvest, injury to fish caught and released, changes in age and size class distribution, changes in reproductive capacity and success, loss of genetic diversity, altered behavior, and changes in ecosystems and food webs (Lewin et al. 2006, Klein 1993). While fishing does remove individuals from the population, we do not anticipate increased fishing

opportunities will affect the fish population as a whole.

Anadromous fish including American shad, Atlantic sturgeon, blueback and alewife have declining populations throughout the state and are not legal for take in Virginia (Brittle 2020).

The fishing program is designed to be sustainable through time, given relatively stable conditions, particularly because of close coordination with VADWR. Anglers must abide by the state's seasons, catch limits, and regulations, which were designed to protect the state's fish populations. The state fisheries biologist suggests that recreational fishing has a very low impact on local Virginia fish populations (Brittle 2020). The refuge's fishing pressure is projected to be minimal and sustainable.

In the 2021 Hunt and Fish Plan and associated EA, the FWS decided to implement a lead tackle across ban effective on September 1, 2026. The proposed removal of the lead tackle requirement is not expected to meaningfully impact fish population health on the refuge. Although lead is a potent neurotoxin (Eisler 1988), Rattner et al. (2008) did not find any reports in the scientific literature of lead toxicosis resulting from lead fishing tackle in any species of fish, amphibians, or invertebrates. A literature review completed by the Association of Fish and Wildlife Agencies (2018) likewise failed to find any such reports. Therefore, the continued use of lead tackle on the refuge likely will not have negative impacts on refuge fish populations.

Non-Target Species

Fishing has the potential to increase disturbance to other wildlife that use fishable waters, including turtles, waterfowl and wading birds. Human activity, including boat use, has the potential to affect the behavior, distribution, and abundance of waterbirds due to disturbance. Several studies have examined the effects of recreation on birds using habitats adjacent to trails and roads through wildlife refuges and coastal habitats in the eastern United States. Overall, the existing research demonstrates that disturbance from recreational activities has at least temporary effects on the behavior and movement of birds and other animals within a habitat or localized area. Presence and increased trail density as caused by fishing may cause bird movement and nesting in habitats that are less disturbed (Burger 1981, Klein et al. 1995, Burger and Gochfeld 1998, Thompson 2015) in addition to slower development in some songbird species during periods of increased public use (Remacha et al. 2016). Mammals tend to not be as impacted as birds and continue to use trails despite increased public use (Kays et al. 2017). Noise caused by visitors also resulted in increased levels of disturbance (Burger 1986, Klein 1993, Burger and Gochfeld 1998). An incidental benefit to upland habitats and associated species would derive from careful, strategic management of this fishing program. Public awareness and appreciation of the refuge, its habitats, and resources would inspire some to volunteer or in other ways support the refuge needs and conservation of resources on the landscape in general.

Anglers at these sites may flush rafting waterfowl within view of a trail, launch, boat, or pier. Large groups of waterfowl are present in refuge waterbodies in winter, which is not a time of year when high numbers of anglers are expected to be present. Higher rates of public use would occur during the warmer months, when most waterfowl are on northern breeding grounds. Wetland species likely to be disturbed and flushed during the warmer months include belted kingfisher, mallard, great blue heron, and basking turtles. The sites are not particularly sensitive, rare, or in close proximity to nest areas, and there are protected and secluded areas nearby where disturbed wildlife can relocate to. Disturbance is, therefore, anticipated to be minor, temporary, and infrequent and would close refuge areas, as needed, to fishing and boating if sensitive nest sites were ever to occur.

A potential direct negative impact exists for wetland and open waterbird species (such as osprey, herons, and waterfowl) from lost fishing gear; specifically, hooks, lures, and litter, or becoming entangled in fishing line or hooks. The extent to which these bird species are impacted by fishing tackle currently is unknown. We will continue to work with our fisheries assistance office and the state in implementing a public education and outreach program on these issues.

In the 2021 Hunt and Fish Plan and associated EA, the FWS decided to implement a lead tackle ban effective on September 1, 2026. The proposed withdrawal of the lead-free tackle requirement may impact wildlife health, but there is no lead-free alternative readily available for saltwater tackle.

Residues from lead-based fishing gear can cause negative health effects, up to and including mortality, when they are unintentionally ingested by wildlife. The best available science suggests these impacts from direct ingestion where lead use is authorized are less than significant at the population level (AFWA 2018). Lead fishing tackle still represents a potential source of lead poisoning in susceptible birds, primarily loons and swans (Grade et al. 2019, Pokras and Chafel 1992, Rattner et al. 2008, Strom et al. 2009) and for diving waterbirds where lead fishing tackle remains in the sediment (Franson et al. 2003, Grade et al. 2019, Pokras et al. 2009, Scheuhammer and Norris 1995). These species may also be at risk for lead poisoning from lead tackle ingestion. Although lead-free tackle is widely available for freshwater fishing, lead-free tackle is not widely available for saltwater fishing.

The proposed withdrawal of the lead-free tackle requirement may impact wildlife health, but the continued use of lead tackle on the three platforms is not expected to meaningfully impact wildlife populations because of the amount of discarded lead in the environment at these locations is very small compared to the background rate of fishing activities in the Hampton Roads area overall.

Threatened and Endangered Species and Other Special Status Species

Federally endangered or threatened species or special status species that may be found on the refuge include Atlantic sturgeon, Northern long-eared bat, tri-colored bat, Eastern black rail, Northeastern beach tiger beetle, monarch butterfly and bald eagle. The detailed Intra-Service Section 7 Evaluation can be found as Appendix J. A summary of potential impacts is included here.

Atlantic sturgeon

The Chesapeake Bay Atlantic sturgeon population is listed as federally endangered. The Atlantic sturgeon is present around Plum Tree Island NWR. However, anglers are not allowed to target them. It is unlikely but possible for incidental take of this species. Potential impacts to Atlantic Sturgeon were coordinated separately with the Virginia Department of Wildlife Resources. The refuge does not anticipate any impacts to Atlantic sturgeon as a result of the fishing program, including from the use of lead fishing tackle. Given the relatively small number of anglers using the waterbodies on the refuge, the likelihood that any discarded lead tackle would concentrate to the level that it negatively impacts Atlantic sturgeon is extremely low.

Northern long-eared bat and tri-colored bat

Northern long-eared bats and tri-colored bats primarily use mines and caves in the winter to hibernate in the western part of the state and use upland forests to forage and roost throughout the rest of the year. Fishing is not allowed on the refuge before sunrise and after sunset when bats are actively out feeding. Fishing does not involve any of the typical disturbances to bats (loud noise, lights, fire, tree removal, entering a hibernaculum) so disturbance events would be unlikely.

The potential for bats to be adversely affected by lead bioaccumulation is discountable due to their diet and foraging habits. Lead tackle fragments would have to break down in the soil to be taken up by plants near the area in which the fragments fall on or penetrate the soil surface. Typically, however, plants do not take heavy metals up until they have reached critical thresholds in the soil (Sharma and Dubey 2005). If lead is taken up by plants, it is mainly through the root system and partly in minor amounts through the leaves. Inside the plants lead accumulates primarily in the root, but some is translocated to the aerial portions. Larvae of certain herbivorous insect species could ingest some of the lead when they eat the exposed plants. Some of the insects could then be consumed by bats. The bats' diets are comprised of insects such as moths, flies, wasps, leafhoppers, caddisflies and beetles, only some of which are herbivorous. In addition, bats are transitory in nature and will not consume their entire diets on the refuge area. Considering the chain of events that are necessary for exposure and the small amount of lead that would contribute to lead concentrations in refuge soils, it is unlikely that bats that occur on refuges will consume lead derived from tackle discarded or lost by anglers on the refuge. Impacts are not likely to adversely affect Indiana bats or Northern long-eared bats and are not likely to jeopardize the continued existence of tricolored

bats.

Eastern black rail

The Eastern black rail is a sparrow-sized, secretive marsh bird. Eastern black rail habitat can be tidally or non-tidally influenced, and range in salinity from salt to brackish to fresh but must be densely vegetated. This species may occur on marshes on Plum Tree Island NWR (USFWS 2020). Fishing activity might cause short-term disturbance due to presence of people out on the water and piers while rails are in adjacent dense marsh. This disturbance would be minimal in nature and would not greatly alter rails natural behavior. Damage to rail habitat from fishing would be negligible as it is unlikely to occur at all with fisherman restricted to a few designated locations and these are mostly piers.

The potential for lead impacts to Eastern black rails is discountable because of the bird's preferred habitat which can be tidally or non-tidally influenced, and range in salinity from salt to brackish to fresh but must be densely vegetated. Since fishing, including the use of lead tackle, is highly unlikely to overlap with Eastern black rail in time or space, this species is not likely to be adversely affected by the proposed activities.

Northeastern beach tiger beetle

Northeastern beach tiger beetles are found on Plum Tree Island NWR on long, wide, dynamic beaches with little human activity. Adult beetles are present from June through September. Larvae are present but buried in the sand year-round. None of the blinds designated for fishing are near suitable beetle habitat, so no impacts from fishing are expected because anglers will not be walking through or otherwise disturbing the sandy beach habitat where the larvae will be buried.

The potential for lead impacts to this species is extremely low because there is little to no overlap between their habitat and recreational fishing activities involving lead tackle. The scarce amount of lead present on this refuge further minimizes potential for exposure.

Monarch butterfly

Monarch butterflies use the refuge habitats during spring and fall migration, as well as during the spring and summer breeding season. Anglers will be present mostly in wetland areas and will hunt from blinds, where monarchs and their nectaring plants generally do not occur. Anglers will use established trails and access points, so the likelihood that they will directly disturb monarchs or damage their host or nectar plants is relatively low.

The potential for lead impacts to monarchs is discountable due to their diets. Adult monarch butterflies feed on nectar. However, exposure relies on the very unlikely

occurrence that lead concentrations in the soil from fishing activities reach high enough levels for uptake by plants, and in this case, it would further require uptake by milkweed and the specific plants that monarchs rely on for nectar sources. Given that bioaccumulation through plants into caterpillars or butterflies is discountable, the proposed activities are not likely to impact the monarch butterfly population.

Bald Eagle

After four decades of protection under the Endangered Species Act, the bald eagle was officially removed from the federal list of endangered and threatened wildlife in 2007. However, they are still protected under the Bald and Golden Eagle Act (Eagle Act) and the Migratory Bird Treaty Act. The FWS considered potential impacts to eagles under the Refuge Improvement Act in this CD and under NEPA in the associated 2026 CatEx. Permitting public access to any waterfront or marsh managed by the refuge holds the possibility of affecting bald eagles, which could be nesting, foraging or overwintering during fishing season. Impacts may either be displacement or temporary disturbance depending on extent of use of a given site by visitors and eagles. As trees mature and forest riparian buffers are improved, sites with low concentrations will likely increase in importance to bald eagles. We will avoid potential adverse impacts to bald eagles by strictly following the management guidelines developed in consultation with the Virginia Department of Wildlife Resources and the Center for Conservation Biology. These include sight and distance setbacks from nests and concentration areas, and time-of-year restrictions.

With regards to potential impacts from lead, eagles are both predatory and engage in scavenging of fish carcasses and gut piles left in the environment from fishing activities. This may present a risk of lead exposure from lead fragments remaining in the carcass/gut pile (Haig et al. 2014; Church et al. 2006; Hunt et al. 2006; Pauli and Buskirk 2007; Herring et al. 2016). Other avian scavengers with similar behavior are likely to face similar exposure.

Visitors and Users

The bulk of Plum Tree Island NWR is a former bombing range and therefore is closed to public access. However, the refuge is open to all six of the System's priority public uses (hunting, fishing, wildlife observation, wildlife photography, environmental education and interpretation) in some form. Wildlife observation and wildlife photography can take place in the waters adjacent to the refuge or when hunting and fishing from the designated locations at the Cow Island Unit. Environmental education and environmental interpretation may occur from FWS-sponsored boat event or opportunistically off-site. In 2025, an estimated 2,000 fishing visits took place from the waters within our jurisdiction.

Fishing occurs in designated areas and is not expected to cause significant conflicts with other user groups. Expanded fishing opportunities would positively contribute to

appreciation and protection of fish and wildlife, both on and off the refuge. The beneficial impacts of providing this wildlife-dependent activity, with some modest increases, include helping meet the existing and future demands for outdoor recreation and education. Only negligible, short-term impacts to user groups have occurred and are anticipated to occur in the future. If conflicts arise among user groups, mitigation efforts can be implemented to ensure that the proposed action will not have significant impacts to other user groups. Mitigation measures may include providing additional education and outreach, providing additional sanitary facilities, or creating zones to separate groups of users.

Long-term impacts

The refuge fishing program is designed to be sustainable, given relatively stable conditions, particularly because of close coordination with the state. Additionally, the proportion of the refuge's harvest of these species is negligible when compared to local, regional, and statewide populations and harvest. Thus, we anticipate no detrimental, long-term impacts from fishing on vegetation or soils, water resources, fish, non-target wildlife, listed species, abiotic resources, or visitor use and experience on the refuge.

Public Review and Comment

The draft CD was available for public review and comment for 30 days from May 27, 2026 to June 26, 2026. The public was made aware of this comment opportunity through a press release and social media posting. Federally recognized tribes were contacted on January 9, 2026 to comment on proposed hunting rule changes. No comments were received. Coordination with the State of Virginia (Virginia Department of Wildlife Resources) occurred in May 2026 and a response was received on June 25, 2026. A hard copy of this document was posted at the Eastern Virginia Rivers National Wildlife Refuge Complex Headquarters at 336 Wilna Road Warsaw, Virginia 22572. It was made available electronically on the refuge website: www.fws.gov/refuge/plum-tree-island.

A summary of public comments received as part of the 2026-2027 Hunting and Fishing Rulemaking process can be found in the Eastern Virginia Rivers NWRC specific categorical exclusion.

Determination

Is the use compatible?

Yes

Stipulations Necessary to Ensure Compatibility

To ensure compatibility with the refuge's purpose and the Refuge System mission, fishing can occur at the refuge in accordance with state and federal regulations and special refuge-specific regulations (50 CFR 32.38) to ensure that wildlife and habitat management goals are achieved, and that the program is providing a safe, high quality fishing experience for participants. This fishing program and impacts on wildlife species will be monitored and potentially modified or eliminated if any of the program's components are found not compatible. Adherence to the regulations, as detailed in the 2026 Hunting and Recreational Fishing Plan and associated hunt-specific documents, will ensure compatibility with the purpose for which the refuge was established. The following stipulation is necessary to ensure compatibility:

- Fishing will be permitted from designated blinds from April through August. Shoreline fishing is prohibited.

Justification

Fishing is a priority public use in the Refuge System through which the public can develop an appreciation for fish and wildlife and reinforced as a priority use by Secretarial Order 3356 (September 15, 2017). The FWS's policy is to provide expanded opportunities for wildlife dependent public uses when compatible and consistent with sound fish and wildlife management and ensure that they receive enhanced attention during planning and management. The Refuge System Improvement Act of 1997 identifies fishing as a priority public use. Priority public uses are to receive enhanced consideration when developing goals and objectives for refuges if they are determined to be compatible. Providing fishing opportunities will promote public appreciation and support for the refuge. Stipulations above will ensure control and provide management flexibility should detrimental impacts develop. Allowing this use furthers the mission of the Refuge System by providing a wildlife dependent recreational use for benefit of the American public while conserving fish, wildlife, and plant resources. This activity is a compatible use that will not materially interfere with or detract from the mission of the Refuge System or the purposes for which the refuge was established.

Signature of Determination

MARCIE
KAPSCH

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Refuge Manager Signature and Date

Signature of Concurrence

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PRADINES LONG

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Refuge Chief, Northeast Region Signature and Date

Mandatory Reevaluation Date

2041

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Compatibility Determination

Title

Compatibility Determination for fishing at Presquile Wildlife Refuge

Refuge Use Category

Fishing

Refuge Use Type(s)

Recreational Fishing

Refuge

Presquile National Wildlife Refuge

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

Presquile National Wildlife Refuge (NWR) was officially established in 1953 when lands were transferred to the U.S. Government as a gift under the provisions of the will of Mr. A. D. Williams and under the authority of the Migratory Bird Conservation Act and Refuge Recreation Act (16 U.S.C. § 460k-1). The refuge purposes from those statutory authorities are:

“for use as an inviolate sanctuary, or for any other management purpose, for migratory birds” (Migratory Bird Conservation Act, 16 U.S.C. § 715d).

“... suitable for — (1) incidental fish and wildlife-oriented recreational development, (2) the protection of natural resources, (3) the conservation of endangered species or threatened species ...” (Refuge Recreation Act, 16 U.S.C. § 460k-1).

National Wildlife Refuge System Mission

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

Description of Use

Is this an existing use?

Yes.

This compatibility determination (CD) reevaluates and replaces the 2021 CD for Fishing. The use is consistent with the 2021 Hunting and Recreational Fishing Plan and associated Environmental Assessment (EA) and Finding of No Significant Impact (2021). The previous 2021 CD was released with the draft hunt plan and EA for public review and comment from April 9 through July 6, 2021. A total of twenty (20) unique commentors offered input to the refuge. The agency responded to those comments in the Finding of No Significant Impact.

This use is being reevaluated due to proposed changes to the refuge's fishing program as described in the 2026 Hunting and Fishing Plan, Environmental Action Statement, and Categorical Exclusion. The 2021 Hunting and Recreational Fishing Plan implemented a lead-free tackle requirement. The FWS proposes to withdraw the lead-free requirements detailed in the plan, in response to current lack of reasonable and prudent alternatives, and recent directives aimed at reducing regulations (Executive Order 14192, Unleashing Prosperity Through Deregulation, dated January 31, 2025; Secretarial Order (S.O.) 3421, Achieving Prosperity through Deregulation, dated Feb 8, 2025; and S. O. 3447: Expanding Hunting and Fishing Access, Removing Unnecessary Barriers, and Ensuring Consistency Across the Department of Interior Lands and Waters, dated January 7, 2026).

What is the use?

The use is recreational fishing at Presquile NWR. Fishing was identified as one of six priority public uses of the Refuge System by the Refuge System Administration Act of 1966, as amended by the Refuge System Improvement Act of 1997 (Public Law 105-57), when found to be compatible. Fishing is currently open at Presquile NWR.

Is the use a priority public use?

Yes

Where would the use be conducted?

Fishing was a new use at Presquile NWR in 2021. Presquile NWR is located on the Lower James River which is tidally influenced with an amplitude of 3 feet (www.fws.gov/refuge/presquile). Presquile NWR has a great amount of tidal swamp forest. This forest is partially bisected by two large tidal creeks (Deep Creek and Little Creek), and numerous coves which provide excellent fishing opportunities. Fishing on Presquile NWR will only be allowed in the creeks and river from motorized boats, canoe, kayak or similar vessels. Bank fishing will not be allowed as the banks are prone to erosion which limits access and poses safety concerns for users.

When would the use be conducted?

Fishing will be conducted year-round from sunrise to sunset. Fishing must be conducted in accordance with state regulations and will only be permitted when the refuge is able to safely open to the public.

How would the use be conducted?

Recreational fishing will be conducted according to VADWR regulations, with some additional refuge-specific regulations. Refuge-specific regulations are designed to protect fish, wildlife, and habitat, and reduce potential conflicts among other users. State fishing licenses are required for all angling activities on the refuge. No preselection or special registrations are required. We would permit fishing by rod and reel or hook and line only.

The 2021 Hunting and Fishing Plan implemented a lead-free tackle requirement. In addition, lead-free requirements for fishing were inadvertently included in the refuge specific regulations (50 CFR 32.65(l) and these will be removed. The FWS proposes to withdraw the lead-free requirements detailed in the plan, in response to current lack of reasonable and prudent alternatives, and recent directives aimed at reducing regulations (E.O. 14192, S.O. 3421, and S. O. 3447). The refuge will continue to encourage voluntary use of lead-free tackle.

Why is this use being proposed or reevaluated?

Fishing is one of the priority public uses defined by the Refuge System Administration Act of 1966, as amended by the Refuge System Improvement Act of 1997 (Public Law 105-57). Department of the Interior Secretarial Order 3356 (September 15, 2017) emphasized identifying opportunities to increase outdoor recreation opportunities for all Americans, including opportunities to hunt and fish. This legitimate and appropriate use of a national wildlife refuge is generally considered compatible, as long as it does not materially interfere with or detract from the fulfillment of the Refuge System mission or the purposes of the refuge. Refuge Comprehensive Conservation Plans (CCP) further identified objectives to maintain or expand hunting and fishing opportunities and specifically stated goals to provide public fishing access at various areas throughout the refuge.

Per FWS Policy 603 FW 2.11H. 1 “We will reevaluate compatibility determinations for existing wildlife-dependent recreational uses when conditions under which the use is permitted change significantly, or if there is significant new information regarding the effects of the use, or concurrently with the preparation or revision of a comprehensive conservation plan, or at least every fifteen (15) years, whichever is earlier...” In this instance, rescinding the lead-free tackle requirement that was implemented in the 2021 Hunting and Fishing Plan necessitated reevaluation of compatibility for this use.

Additionally expanding fishing opportunities and aligning regulations with state agencies implements S.O. 3347 Conservation Stewardship and Outdoor Recreation, S.O. 3356 Hunting, Fishing, Recreational Shooting, and Wildlife Conservation Opportunities and Coordination with States, Tribes, and Territories, and the 2025

Director's Memo for an Annual Update for the 2026-2027 Hunting and Sport Fishing Seasons on National Wildlife Refuges and National Fish Hatcheries. The fishing program is administered in accordance with sound wildlife management principles and the utmost concern for public safety.

Availability of Resources

To comply with the Refuge Recreation Act (Public Law 87-714) and Refuge Improvement Act (Public Law 105-57), the Refuge Manager must determine whether sufficient resources—financial, staffing, facilities, or other infrastructure—are available to support the proposed use without materially interfering with the refuge purpose(s) or the mission of the National Wildlife Refuge System. This determination should be informed by a review of current capacity and, where applicable, the refuge's Comprehensive Conservation Plan (CCP).

Assessment of current resources and capacity

The Refuge Manager will use sound professional judgment to determine the funding and staffing needed to perform the functions necessary to ensure compatibility. These functions include trail, parking lot, and road maintenance, providing fishing brochures, updating the website, inventory and monitoring of species, and reporting. If the refuge does not have the resources to carry out these functions, compatibility of the refuge use may be reevaluated and discontinued at that time.

The resources needed to administer this use are currently available. However, adequate levels of refuge staffing, funding, and facilities are necessary to administer this use in a manner that ensures continued compatibility (603 FW2 2.11(A.2)). Therefore, a reduction in any of these resources may prompt the Refuge Manager to reevaluate the compatibility of this use, and the Refuge Manager may decide to modify or discontinue the use.

We estimate that the recurring annual expense to administer this use would not exceed \$100.00. This includes the cost of staff time for developing materials and monitoring the use.

Impacts of changes to resources and capacity

The availability of resources is subject to change and the level of use provided may vary based on current staffing, partner support, funding, or infrastructure conditions. Costs may increase over time, in relation to changes in the costs for equipment, maintaining facilities, etc. A substantial increase to the number of requests may also create the need for additional resources to administer the use. The Refuge Manager will use sound professional judgment in evaluating whether the refuge or its partners can develop, operate, and maintain the use in a compatible manner.

For priority public uses—including hunting, fishing, wildlife observation and photography, or environmental education and interpretation—if resource conditions shift such that the refuge can no longer sustain the use in a compatible manner, the Refuge Manager may temporarily modify or suspend the use pursuant to 50 CFR 25.21(E) for a period of up to one year). If it becomes apparent that insufficient resources will be sustained into the long-term, the Refuge Manager may reevaluate the compatibility of the use and discontinue the use if necessary. The public will be notified of any changes to refuge uses, including temporary modification or suspension, reevaluation of compatibility and/or discontinuing of refuge uses.

Anticipated Impacts of the Use

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

Fishing was evaluated in the environmental assessment associated with the 2021 Hunting and Recreational Fishing Plan (USFWS 2021). Fishing has been found not to significantly impact the human environment through the Finding of No Significant Impact. Additionally, fishing is being evaluated through the draft 2026 Categorical Exclusion. The analysis below is supplemental to the previous environmental effects described in those documents. The effects and impacts of the proposed use to refuge resources, whether adverse or beneficial, are those that are reasonably foreseeable and have a reasonably close causal relationship to the proposed use. This CD includes the written analyses of the environmental consequences on an affected resource only when the impacts on that resource could materially interfere or detract from the purpose for which a refuge was established and the mission of the Refuge System.

To ensure compatibility with refuge purposes and mission of the Refuge System, fishing is conducted in accordance with state and federal regulations and supplemented by refuge-specific regulations (50 CFR 32.65). However, the Refuge Manager may, upon annual review of the fishing program, impose further restrictions on fishing, recommend the refuge be closed to fishing, or further liberalize fishing regulations up to the limit of state regulations. The refuge will restrict activity if it becomes inconsistent with other, higher priority refuge programs or endangers refuge resources or public safety. Potential impacts of fishing may include:

- Accidental or deliberate introductions of non-native species that may negatively affect native fish, wildlife, or vegetation. The refuge does not permit use of live minnows in order to prevent the likelihood of introductions of non-native fish.
- Birds may ingest sinkers, hooks, lures, and fishing line. Ingested tackle may cause damage or penetration of the mouth or other parts of the digestive tract,

resulting in impaired function or death.

- Negative impacts on water quality from human waste and litter and motorboats.
- Conflicts between anglers and other user groups.

To the best of our knowledge, there are negligible impacts to wildlife populations, including special status species, or habitats from lead fishing tackle. Fishing is not expected to meaningfully affect wildlife population health on the refuge, in relation to the background rate of residual lead into the environment from fishing activities at large. The best available science suggests that where lead use is authorized, impacts to wildlife from direct ingestion are observable but would not approach a threshold of significance at the population level (AFWA 2018), while food chain biomagnification is negligible (Behan et al. 1979; Eisler 1988; Wong et al. 1978).

The refuge continues to educate anglers on lead-free alternatives and encourage voluntary use of lead-free tackles for fishing. The nature of fishing on the refuge reduces the potential that wildlife will be at great risk from lead exposure, especially given the large area for fishing, multiple access sites, and the smaller number of anglers. The number of individuals of a species that may be exposed to toxic amounts of lead are so small that we do not anticipate any long-term population level effects to wildlife residing on or migrating through the refuge. For more information on the effects of lead as a result of fishing, including threatened, endangered, and special status species, habitat, and the human environment, see the 2021 Eastern Virginia Rivers National Wildlife Refuge Complex Hunting and Recreational Fishing Plan and associated Environmental Assessment.

Short-term impacts

Vegetation and Soils

The current number of anglers comprises a small fraction of the refuge's total visitation. Negative impacts of recreational fishing include the temporary trampling of vegetation which can lead to plant clearing and increased erosion. To reduce vegetation disturbance and potential erosion, we are limiting fishing access in Presquile to personal watercraft (fishing from the banks of waterbodies is not permitted). With fishing limited to designated areas, soils and vegetation are predicted to be minimally disturbed by fishing in the refuge.

Lead availability in some wetlands and waterways may exist through anglers' use of

lead sinkers and jigs for fishing. “Sinkers” are weights of various sizes and shapes used to sink a fishing line below the surface of the water; “jigs” are weighted hooks, often brightly painted or otherwise decorated, used as lures in angling. Other fishing tackle components may contain lead as well. When lost or inadvertently discarded, lead fishing gear can remain in the bottom substrate.

Water Resources

Paths used by anglers can affect the hydrology of an area by altering drainage patterns. Some anglers may walk off trail to access a fishing area, thereby creating new trails and affecting drainage. However, since fishing is limited to only on personal watercraft, these effects will be lessened. The recreational fishing program would not contribute to pollution per any federal or state water quality standards by contributing pollutants to waterways. At the anticipated levels of use, fishing is not expected to have any adverse effects on water resources.

Fish Species

Recreational fishing could potentially cause negative impacts to fish populations if it occurs at unsustainably high levels or is not managed properly. Potential impacts to fish populations from fishing include direct mortality from harvest, injury to fish caught and released, changes in age and size class distribution, changes in reproductive capacity and success, loss of genetic diversity, altered behavior, and changes in ecosystems and food webs (Lewin et al. 2006, Klein 1993). While fishing does remove individuals from the population, we do not anticipate increased fishing opportunities will affect the fish population as a whole.

According to the 2015-2016 Angler Survey, two thirds of anglers partake in catch and release and rarely take. The most popular species targeted by anglers include blue catfish, largemouth bass, striped bass and crappie (VADWR 2016). Catch rates varied over all months and by species throughout the survey time-period. Harvest rates of all species were very low except for hickory shad and white perch (VADWR 2016). Blue catfish, not a native species, were caught and harvested the most (VADWR 2018). High numbers of channel catfish, hickory shad and white perch were also harvested (VADWR 2016). Largemouth bass were caught in very high numbers but were rarely harvested. Largemouth bass and blue catfish are common and have increasing numbers found in James River waters (VADWR 2016). Anadromous fish including American shad, Atlantic sturgeon, blueback and alewife have declining populations throughout the state and are not legal for take in Virginia (Brittle 2020).

The fishing program is designed to be sustainable through time, given relatively stable conditions, particularly because of close coordination with VADWR. Anglers must abide by the state’s seasons, catch limits, and regulations, which were designed to protect the state’s fish populations. The state fisheries biologist suggests that

recreational fishing has a very low impact on local Virginia fish populations (Brittle 2020). The refuge's fishing pressure is projected to be minimal and sustainable.

In the 2021 Hunt and Fish Plan and associated EA, the FWS decided to implement a lead tackle across ban effective on September 1, 2026. The proposed withdrawal of the lead tackle requirement is not expected to meaningfully impact fish population health on the refuge. Although lead is a potent neurotoxin (Eisler 1988), Rattner et al. (2008) did not find any reports in the scientific literature of lead toxicosis resulting from lead fishing tackle in any species of fish, amphibians, or invertebrates. A literature review completed by the Association of Fish and Wildlife Agencies (2018) likewise failed to find any such reports. Therefore, the continued use of lead tackle on the refuge likely will not have negative impacts on refuge fish populations.

Non-Target Species

Fishing has the potential to increase disturbance to other wildlife that use fishable waters, including waterfowl and wading birds. Human activity, including boat use, has the potential to affect the behavior, distribution, and abundance of waterbirds due to disturbance. Several studies have examined the effects of recreation on birds using habitats adjacent to trails and roads through wildlife refuges and coastal habitats in the eastern United States. Overall, the existing research demonstrates that disturbance from recreational activities has at least temporary effects on the behavior and movement of birds and other animals within a habitat or localized area. Presence and increased trail density as caused by fishing may cause bird movement and nesting in habitats that are less disturbed (Burger 1981, Klein et al. 1995, Burger and Gochfeld 1998, Thompson 2015) in addition to slower development in some songbird species during periods of increased public use (Remacha et al. 2016). Mammals tend to not be as impacted as birds and continue to use trails despite increased public use (Kays et al. 2017). Noise caused by visitors also resulted in increased levels of disturbance (Burger 1986, Klein 1993, Burger and Gochfeld 1998). An incidental benefit to upland habitats and associated species would derive from careful, strategic management of this fishing program. Public awareness and appreciation of the refuge, its habitats, and resources would inspire some to volunteer or in other ways support the refuge needs and conservation of resources on the landscape in general.

Anglers may flush rafting waterfowl by driving boats or fishing within view of the birds. Large groups of waterfowl are present in refuge waterbodies in winter, which is not a time of year when high numbers of anglers are expected to be present. Higher rates of public use would occur during the warmer months, when most waterfowl are on northern breeding grounds. Wetland species likely to be disturbed and flushed during the warmer months include belted kingfisher, mallard, great blue heron, and basking turtles. The sites are not particularly sensitive, rare, or in close proximity to nest areas, and there are protected and secluded areas nearby where disturbed

wildlife can relocate to. Disturbance is, therefore, anticipated to be minor, temporary, and infrequent and would close refuge areas, as needed, to fishing and boating if sensitive nest sites were ever to occur.

A potential direct negative impact exists for wetland and open waterbird species (such as osprey, herons, and waterfowl) from lost fishing gear; specifically, hooks, lures, and litter, or becoming entangled in fishing line or hooks. The extent to which these bird species are impacted by fishing tackle currently is unknown. We will continue to work with our fisheries assistance office and the state in implementing a public education and outreach program on these issues.

In the 2021 Hunt and Fish Plan and associated EA, the FWS decided to implement a lead tackle ban on the refuge effective on September 1, 2026. The proposed withdrawal of the lead-free tackle requirement may impact wildlife health, but the continued use of lead tackle around the refuge is not expected to meaningfully impact wildlife populations because of the amount of discarded lead in the environment at this location is very small compared to the background rate of fishing activities in the James River watershed overall.

Residues from lead-based fishing gear can cause negative health effects, up to and including mortality, when they are unintentionally ingested by wildlife. The best available science suggests these impacts from direct ingestion where lead use is authorized are less than significant at the population level (AFWA 2018). Lead fishing tackle still represents a potential source of lead poisoning in susceptible birds, primarily loons and swans (Grade et al. 2019, Pokras and Chafel 1992, Rattner et al. 2008, Strom et al. 2009) and for diving waterbirds where lead fishing tackle remains in the sediment (Franson et al. 2003, Grade et al. 2019, Pokras et al. 2009, Scheuhammer and Norris 1996). These species may also be at risk for lead poisoning from lead tackle ingestion. The refuge will continue to encourage the voluntary use of lead-free tackle to reduce impacts to wildlife and habitat.

Threatened, Endangered and Special Status Species

Federally endangered and threatened, proposed or other special-status species that may be found on the refuge include Atlantic sturgeon, Indiana bat, Northern long-eared bat, tri-colored bat, Eastern black rail, monarch butterfly, sensitive joint-vetch, small whorled pogonia, swamp pink, and bald eagle. The detailed Intra-Service Section 7 Evaluation can be found as Appendix J. A summary of potential impacts is included here.

Atlantic Sturgeon

The Chesapeake Bay Atlantic sturgeon population is listed as federally endangered. Atlantic sturgeon utilize large coastal rivers and estuaries including the James River as important spawning grounds. Virginia Commonwealth University and Virginia

Institute of Marine Science have conducted trawl surveys and confirmed fry and adult Atlantic sturgeon offshore of Presquile NWR. While Atlantic sturgeon are protected by the Endangered Species Act, recreational anglers have caught few migrating sturgeon in their nets while catfishing. However, this is not significant and is much less than commercial fisherman bycatch and boat strikes which are not negligible (Brittle 2020). However, anglers are not allowed to target them. It is unlikely but possible for incidental take of this species. Potential impacts to Atlantic Sturgeon were coordinated separately with the Virginia Department of Wildlife Resources. The refuge does not anticipate any impacts to Atlantic sturgeon as a result of the fishing program, including from the use of lead fishing tackle. Given the relatively small number of anglers using the waterbodies on the refuge, the likelihood that any discarded lead tackle would concentrate to the level that it negatively impacts Atlantic sturgeon is extremely low.

Indiana, Tri-colored and Northern long-eared bats

Indiana, tri-colored and Northern long-eared bats primarily use mines and caves in the winter to hibernate in the western part of the state and use upland forests to forage and roost throughout the rest of the year. Fishing is not allowed on the refuge before sunrise and after sunset when bats are actively out feeding. Fishing does not involve any of the typical disturbances to bats (loud noise, lights, fire, tree removal, entering a hibernaculum) so disturbance events would be unlikely.

The potential for bats to be adversely affected by lead bioaccumulation is discountable due to their diet and foraging habits. Typically, plants do not take heavy metals up until they have reached critical thresholds in the soil (Sharma and Dubey 2005); if lead is taken up by plants, it accumulates primarily in the root system and in lesser amounts in the leaves. Larvae of certain herbivorous insect species could ingest some of the lead when they eat the exposed plants. Some of the insects could then be consumed by bats. However, the bats' diets are comprised of insects such as moths, flies, wasps, leafhoppers, caddisflies and beetles, only some of which are herbivorous. In addition, bats are transitory in nature and will not consume their entire diets on the refuge area. Thus, it is unlikely that bats on the refuge would consume lead derived from fishing tackle on the refuge.

Eastern black rail

The Eastern black rail is a sparrow-sized, secretive marsh bird. Eastern black rail habitat can be tidally or non-tidally influenced, and range in salinity from salt to brackish to fresh but must be densely vegetated. This species may occur on Presquile NWR. The potential for lead impacts to Eastern black rails is discountable because of the bird's preferred habitat, which can be tidally or non-tidally influenced, and range in salinity from salt to brackish to fresh but must be densely vegetated. Since fishing, including the use of lead tackle, is highly unlikely to overlap with Eastern black rail in

time or space, this species is not likely to be adversely affected by the proposed activities.

Monarch butterfly

Monarch butterflies use the refuge grasslands, wetlands, old fields, agricultural margins, and roadsides during spring and fall migration, as well as during the spring and summer breeding season. Anglers are only permitted to fish from a personal watercraft and will not walk on or through monarch habitat. Therefore, no impacts from fishing, such as disturbance or habitat trampling, are expected.

The potential for lead impacts to monarchs is discountable due to their diets. Adult monarch butterflies feed on nectar. However, exposure relies on the very unlikely occurrence that lead concentrations in the soil from fishing activities reach high enough levels for uptake by plants, and in this case, it would further require uptake by milkweed and the specific plants that monarchs rely on for nectar sources. Given that bioaccumulation through plants into caterpillars or butterflies is discountable, the proposed activities are not likely to impact the monarch butterfly population.

Sensitive joint-vetch, small whorled pogonia, swamp pink

Sensitive joint-vetch is an annual legume that typically flowers July through early October in the intertidal zone of coastal marshes where plants are flooded twice daily. Sensitive joint-vetch may occur in the intertidal zone of freshwater marshes of the refuge. The species prefers the marsh edge at an elevation near the upper limit of tidal fluctuation, where soils may be mucky, sandy, or gravelly (USFWS 2012). State surveys to locate sensitive joint-vetch have been conducted on Presquile NWR and regularly document its presence within the eastern and northern freshwater marshes. It is very unlikely that any fishing would occur in this remote environment because anglers are required to fish from a personal watercraft and not from land, so we do not expect any impacts from fishing on this plant.

Small whorled pogonia grows under canopies that are relatively open or near features that create long-persisting breaks in the forest canopy such as a road or a stream. It grows in mixed deciduous or mixed-deciduous/coniferous forests. They require overwintering with mycorrhizal fungi to germinate and form above ground in late August to September (USFWS 2011). It may occur at the refuge, but it is not expected to be impacted by fishing because anglers are not permitted to fish from land.

Swamp pink is a perennial wetland species with evergreen leaves. Swamp pink requires specific hydrologic conditions, and no populations are known to occur at Presquile NWR. Areas where swamp pink could occur are not utilized by anglers, who must fish from a boat only, so no impacts are expected.

While a small, dispersed concentration of lead may be present on the landscape due

to use of tackle containing lead, it is not likely to adversely affect these listed plants. Sharma and Dubey (2005) found that excess lead in plants causes a variety of toxic symptoms including stunted growth, chlorosis, blackening of root systems, inhibited photosynthesis, disrupted mineral nutrition and water balance, and altered plant hormones. Rattner et al. (2008) found that migration of lead from soil to roots and other parts of plants is generally minimal (Sorvai et al. 2006). Angler presence will be dissipated and they are unlikely to be concentrated in the areas where these species could be found. Also, the migration of lead from soil to roots and other parts of the plant is expected to be minimal, so the use of lead for fishing activities is not likely to adversely impact these species.

Bald Eagle

After four decades of protection under the Endangered Species Act, the bald eagle was officially removed from the federal list of endangered and threatened wildlife in 2007. However, they are still protected under the Bald and Golden Eagle Act (Eagle Act) and the Migratory Bird Treaty Act. The FWS considered potential impacts to eagles under the Refuge Improvement Act in this CD and under NEPA in the associated 2026 CatEx.

Visitors fishing near the shoreline may flush bald eagles. Impacts may either be displacement or temporary disturbance depending on extent of use of a given site by visitors and eagles. As trees mature and forest riparian buffers are improved, sites with low concentrations will likely increase in importance to bald eagles. Fishing is more popular in the warmer months, when eagles may be nesting, which increases the potential impacts to the species. We will avoid potential adverse impacts to bald eagles by strictly following the management guidelines developed in consultation with the Virginia Department of Wildlife Resources and the Center for Conservation Biology. These include sight and distance setbacks from nests and concentration areas, and time-of-year restrictions.

With regards to potential impacts from lead, eagles are both predatory and engage in scavenging of carcasses and gut piles left in the environment from fishing activities. This may present a risk of lead exposure from lead fragments remaining in the carcass/gut pile (Haig et al. 2014; Church et al. 2006; Hunt et al. 2006; Pauli and Buskirk 2007; Herring et al. 2016). Other avian scavengers with similar behavior are likely to face similar exposure.

Visitors and Users

Presquile NWR is open to all six of the System's priority public uses (hunting, fishing, wildlife observation, wildlife photography, environmental education and interpretation). In 2025, approximately 3,850 people visited the refuge for non-

consumptive nature-based recreation. Over 700 visitors participated in fishing on the refuge.

Fishing occurs in designated areas and is not expected to cause significant conflicts with other user groups. Expanded fishing opportunities would positively contribute to appreciation and protection of fish and wildlife, both on and off the refuge. The beneficial impacts of providing this wildlife-dependent activity, with some modest increases, include helping meet the existing and future demands for outdoor recreation and education. Only negligible, short-term impacts to user groups have occurred and are anticipated to occur in the future. If conflicts arise among user groups, mitigation efforts can be implemented to ensure that the proposed action will not have significant impacts to other user groups. Mitigation measures may include providing additional education and outreach, providing additional sanitary facilities, or creating zones to separate groups of users.

Long-term impacts

The refuge fishing program is designed to be sustainable, given relatively stable conditions, particularly because of close coordination with the state. Additionally, the proportion of the refuge's harvest of these species is negligible when compared to local, regional, and statewide populations and harvest. Thus, we anticipate no detrimental, long-term impacts from fishing on vegetation or soils, water resources, fish, non-target wildlife, listed species, abiotic resources, or visitor use and experience on the refuge.

Public Review and Comment

The draft CD was available for public review and comment for 30 days from May 27, 2026 to June 26, 2026. The public was made aware of this comment opportunity through a press release and social media posting. Federally recognized tribes were contacted on January 9, 2026 to comment on proposed hunting rule changes. No comments were received. Coordination with the State of Virginia (Virginia Department of Wildlife Resources) occurred in May 2026 and a response was received on June 25, 2026. A hard copy of this document was posted at the Eastern Virginia Rivers National Wildlife Refuge Complex Headquarters at 336 Wilna Road Warsaw, Virginia 22572. It was made available electronically on the refuge website: www.fws.gov/refuge/presquile.

A summary of public comments received as part of the 2026–2027 Hunting and Fishing Rulemaking process can be found in the Eastern Virginia Rivers NWRC specific categorical exclusion.

Determination

Is the use compatible?

Yes

Stipulations Necessary to Ensure Compatibility

To ensure compatibility with the refuge's purpose and the Refuge System mission, fishing can occur at the refuge in accordance with state and federal regulations and special refuge-specific regulations (50 CFR 32.38) to ensure that wildlife and habitat management goals are achieved, and that the program is providing a safe, high quality fishing experience for participants. This fishing program and impacts on wildlife species will be monitored and potentially modified or eliminated if any of the program's components are found not compatible. Adherence to the regulations, as detailed in the 2026 Hunting and Recreational Fishing Plan and associated hunt-specific documents, will ensure compatibility with the purpose for which the refuge was established. The following stipulations are necessary to ensure compatibility:

- All activities will comply with the Bald Eagle Protection Guidelines for Virginia, jointly developed by the U.S. Fish and Wildlife Service and the Virginia Department of Wildlife Resources, in consultation with the center for Conservation Biology.
- Only use of non-motorized or electric boats are allowed when fishing from watercraft.
- Fishing will be permitted only in designated areas to prevent erosion and degradation of wetlands and water quality.

Justification

Fishing is a priority public use in the Refuge System through which the public can develop an appreciation for fish and wildlife and reinforced as a priority use by Secretarial Order 3356 (September 15, 2017). The FWS's policy is to provide expanded opportunities for wildlife dependent public uses when compatible and consistent with sound fish and wildlife management and ensure that they receive enhanced attention during planning and management. The Refuge System Improvement Act of 1997 identifies fishing as a priority public use. Priority public uses are to receive enhanced consideration when developing goals and objectives for refuges if they are determined to be compatible. Providing fishing opportunities will promote public appreciation and support for the refuge. Stipulations above will ensure control and provide management flexibility should detrimental impacts develop. Allowing this use

further the mission of the Refuge System by providing a wildlife dependent recreational use for benefit of the American public while conserving fish, wildlife, and plant resources. This activity is a compatible use that will not materially interfere with or detract from the mission of the Refuge System or the purposes for which the refuge was established.

Signature of Determination

MARCIE
KAPSCH

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MARCIE KAPSCH
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Refuge Manager Signature and Date

Signature of Concurrence

MARCIA
PRADINES LONG

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Refuge Chief, Northeast Region Signature and Date

Mandatory Reevaluation Date

2041

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Compatibility Determination

Title

Compatibility Determination for fishing at Rappahannock River Valley National Wildlife Refuge.

Refuge Use Category

Fishing

Refuge Use Type(s)

Recreational Fishing

Refuge

Rappahannock River Valley National Wildlife Refuge

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

Rappahannock River Valley National Wildlife Refuge (NWR) was established in 1996 when the first property was purchased for the development, advancement, management, conservation and protection of fish and wildlife resources...for the benefit of the U.S. Fish and Wildlife Service, in performing its activities and services. (Fish and Wildlife Act of 1956, as amended [16 U.S.C. 742a-742j, not including 742d-l]) The refuge purposes from these statutory authorities are:

“...the conservation of the wetlands of the Nation in order to maintain the public benefits they provide and to help fulfill international obligations...” 16 U.S.C. §3901(b), 100 Stat. 3583 (Emergency Wetlands Resources Act of 1986)

“to conserve...fish or wildlife which are listed as endangered species or threatened species” 16 U.S.C. §1534 (Endangered Species Act of 1973), and

“...for use as an inviolate sanctuary, or for any other management purpose, for migratory birds...” (Migratory Bird Conservation Act, as amended [16 U.S.C. 715-715d, 715e, 715f-715r]).

National Wildlife Refuge System Mission

The mission of the National Wildlife Refuge System (Refuge System) is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats

within the United States for the benefit of present and future generations of Americans (Pub. L. 105-57; 111 Stat. 1252).

Description of Use

Is this an existing use?

Yes.

This compatibility determination (CD) reevaluates and replaces the 2021 CD for Fishing. The use is consistent with the 2021 Hunting and Fishing Plan and associated Environmental Assessment (EA) and Finding of No Significant Impact (2021). The previous 2021 CD was released with the draft hunt plan and EA for public review and comment from April 9 through July 6, 2021. A total of 20 unique commentors offered input to the refuge. The agency responded to those comments in the Finding of No Significant Impact.

This use is being reevaluated due to proposed changes to the refuge's fishing program as described in the 2026 Hunting and Fishing Plan, Environmental Action Statement, and Categorical Exclusion. The 2021 Hunt Plan implemented a refuge-wide lead-free tackle requirement. The FWS proposes to withdraw the refuge-wide lead-free requirements detailed in the plan, in response to current lack of reasonable and prudent alternatives, and recent directives aimed at reducing regulations (Executive Order (E.O) 14192, Unleashing Prosperity Through Deregulation, dated January 31, 2025; Secretarial Order (S.O.) 3421, Achieving Prosperity through Deregulation, dated Feb 8, 2025; and S. O. 3447: Expanding Hunting and Fishing Access, Removing Unnecessary Barriers, and Ensuring Consistency Across the Department of Interior Lands and Waters, dated January 7, 2026).

Historic lead-free tackle requirements will still be in effect at Wilna Pond and Laurel Grove Pond. This historic regulation was aimed at protecting sensitive migratory birds, including loons, swans and other diving birds.

What is the use?

The use is recreational fishing at Rappahannock River Valley NWR. Fishing was identified as one of six priority public uses of the Refuge System by the Refuge System Administration Act of 1966, as amended by the Refuge System Improvement Act of 1997 (Public Law 105-57), when found to be compatible. Fishing is currently open at Rappahannock River Valley NWR.

Is the use a priority public use?

Yes

Where would the use be conducted?

Rappahannock River Valley NWR first opened to recreational fishing in 2003. At that time, Wilna Pond was the only site suitable for fishing. Since then, additional land acquisitions have resulted in three more areas suitable for public fishing at Laurel Grove Pond, Mount Landing Creek, and Cat Point Creek (www.fws.gov/refuge/rappahannock-river-valley).

Fishing opportunities on the Wilna and Laurel Grove Units are similar and include largemouth bass, bluegill sunfish, fliers, yellow bullhead catfish, and American eel. Wilna Pond is approximately 30 acres in size and averages about 6 feet in depth. Fishing would be allowed from the fishing pier and levee shoreline. The Laurel Grove Pond is located in the southwestern corner of the Laurel Grove Unit and is approximately 10 acres with numerous small coves. Water depths of open areas and those near the shoreline have been measured at depths greater than 6 feet. We propose to allow fishing from the designated shoreline locations along the Wilna and Laurel Grove ponds). These ponds are also accessible to hand-launchable electric motor-powered boats, non-motorized boats, canoes, or kayaks or similar vessels. We prohibit use of boats propelled by gasoline motors, sail, or mechanically operated paddle wheel.

The Hutchinson and Cat Point Creek units provide fishing opportunities on creeks which flow into the Rappahannock River. The Hutchinson Unit provides a fishing opportunity via a pier on Mount Landing Creek. The Cat Point Creek unit provides access to Menokin Bay on Cat Point Creek. Species that can be caught in this tidal freshwater creek include crappie, bluegill, perch, catfish, and largemouth bass. In the spring, shad, herring, and striped bass migrate upstream to spawn. The Cat Point Creek Unit has a newly constructed American Disabilities Act (ADA) accessible fishing pier providing access to Cat Point Creek. Refuge fishing on the Cat Point Creek will be confined to pier use and boat access only. Anglers can launch canoes, kayaks and hand launchable electric motor-powered boats in Cat Point Creek from the Cat Point Creek unit. Menokin Bay receives minimal motorized boat use and during the permitting process for the fishing pier, the County Wetlands Board and local residents voiced concerns that motorized boat use would be allowed at the Cat Point Creek unit. In addition, the access road and parking lot at the pier are limited in size and would not support larger motorized boats and trailers. Motorized boats will therefore not be permitted from the Cat Point Creek unit.

In addition to the areas listed above, the Toby's Point Unit has bank fishing access along approximately 100 feet of Rappahannock River shoreline adjacent to the County parking lot. This area is not under the jurisdiction of the refuge so is not included in this Compatibility Determination (CD). There is also a boat ramp at this unit that

provides river access and is managed by King George County.

When would the use be conducted?

Fishing will be conducted year-round from sunrise to sunset. Fishing must be conducted in accordance with state regulations and will only be permitted when the refuge is able to safely open to the public.

Hunting is permitted on several refuge tracts as listed in the Hunting and Fishing Plan. During the hunting season, we may either close areas to fishing and other non-hunting activities, or separate users to ensure public safety.

How would the use be conducted?

Recreational fishing will be conducted according to VADWR regulations, with some additional refuge-specific regulations. Refuge-specific regulations are designed to protect fish, wildlife, and habitat, and reduce potential conflicts among other users. State fishing licenses are required for all angling activities on the refuge. No preselection or special registrations are required. We would permit fishing by rod and reel or hook and line only. Fishing for largemouth bass will be catch-and-release only in the Wilna and Laure Grove ponds to maintain existing health and productivity of the fisheries.

Lead-free tackle will continue to be required at Wilna Pond and Laurel Grove Pond under a historic regulation for the refuge. The 2021 Hunt Plan included a lead-free tackle requirement across the entire refuge. The FWS proposes to withdraw the refuge-wide lead-free requirement in response to current lack of reasonable and prudent alternatives, and recent directives aimed at reducing regulations (E.O. 14192, S.O. 3421, and S. O. 3447).

Why is this use being proposed or reevaluated?

Fishing is one of the priority public uses defined by the Refuge System Administration Act of 1966, as amended by the Refuge System Improvement Act of 1997 (Public Law 105-57). Department of the Interior Secretarial Order 3356 (September 15, 2017) emphasized identifying opportunities to increase outdoor recreation opportunities for all Americans, including opportunities to hunt and fish. This legitimate and appropriate use of a national wildlife refuge is generally considered compatible, as long as it does not materially interfere with or detract from the fulfillment of the Refuge System mission or the purposes of the refuge. Refuge Comprehensive Conservation Plans (CCP) further identified objectives to maintain or expand hunting and fishing opportunities and specifically stated goals to provide public fishing access at various areas throughout the refuges.

Per FWS Policy 603 FW 2.11H. 1 “We will reevaluate compatibility determinations for existing wildlife-dependent recreational uses when conditions under which the use is permitted change significantly, or if there is significant new information regarding the effects of the use, or concurrently with the preparation or revision of a comprehensive conservation plan, or at least every fifteen (15) years, whichever is earlier...” In this instance, rescinding the refuge-wide lead-free tackle requirement that was implemented in the 2021 Hunting and Fishing Plan necessitated reevaluation of compatibility for this use.

Additionally expanding fishing opportunities and aligning regulations with state agencies implements S.O. 3347 Conservation Stewardship and Outdoor Recreation, S.O. 3356 Hunting, Fishing, Recreational Shooting, and Wildlife Conservation Opportunities and Coordination with States, Tribes, and Territories, and the 2025 Director’s Memo for an Annual Update for the 2026-207 Hunting and Sport Fishing Seasons on National Wildlife refuges and National Fish Hatcheries. The fishing program is administered in accordance with sound wildlife management principles and the utmost concern for public safety.

Availability of Resources

To comply with the Refuge Recreation Act (Public Law 87-714) and Refuge Improvement Act (Public Law 105-57), the Refuge Manager must determine whether sufficient resources—financial, staffing, facilities, or other infrastructure—are available to support the proposed use without materially interfering with the refuge purpose(s) or the mission of the National Wildlife Refuge System. This determination should be informed by a review of current capacity and, where applicable, the refuge’s Comprehensive Conservation Plan (CCP).

Assessment of current resources and capacity

The Refuge Manager will use sound professional judgment to determine the funding and staffing needed to perform the functions necessary to ensure compatibility. These functions include trail, parking lot, and road maintenance, providing fishing brochures, updating the website, maintain non-motorized boat launches, restrooms and fishing piers, inventory and monitoring of species, and reporting. If the refuge does not have the resources to carry out these functions, compatibility of the refuge use may be reevaluated and discontinued at that time.

The resources needed to administer this use are currently available. However, adequate levels of refuge staffing, funding, and facilities are necessary to administer this use in a manner that ensures continued compatibility (603 FW2 2.11(A.2)).

Therefore, a reduction in any of these resources may prompt the Refuge Manager to reevaluate the compatibility of this use, and the Refuge Manager may decide to modify or discontinue the use.

We estimate that the recurring annual expense to administer this use is \$4,500. This includes the cost of maintenance (varies based on the amount of trail, parking lot and boat dock use by this activity) and staff time for developing materials and monitoring the use.

Impacts of changes to resources and capacity

The availability of resources is subject to change and the level of use provided may vary based on current staffing, partner support, funding, or infrastructure conditions. Costs may increase over time, in relation to changes in the costs for equipment, maintaining facilities, etc. A substantial increase to the number of requests may also create the need for additional resources to administer the use. The Refuge Manager will use sound professional judgment in evaluating whether the refuge or its partners can develop, operate, and maintain the use in a compatible manner.

For priority public uses—including hunting, fishing, wildlife observation and photography, or environmental education and interpretation—if resource conditions shift such that the refuge can no longer sustain the use in a compatible manner, the Refuge Manager may temporarily modify or suspend the use pursuant to 50 CFR 25.21(E) for a period of up to one year). If it becomes apparent that insufficient resources will be sustained into the long-term, the Refuge Manager may reevaluate the compatibility of the use and discontinue the use if necessary. The public will be notified of any changes to refuge uses, including temporary modification or suspension, reevaluation of compatibility and/or discontinuing of refuge uses.

Anticipated Impacts of the Use

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

Fishing was evaluated in the environmental assessment associated with the 2021 Hunting and Recreational Fishing Plan (USFWS 2021). Fishing has been found not to significantly impact the human environment through the Finding of No Significant Impact. Additionally, fishing is being evaluated through the draft 2026 Categorical Exclusion. The analysis below is supplemental to the previous environmental effects described in those documents. The effects and impacts of the proposed use to refuge resources, whether adverse or beneficial, are those that are reasonably foreseeable and have a reasonably close causal relationship to the proposed use. This CD includes the written analyses of the environmental consequences on an affected resource only

when the impacts on that resource could materially interfere or detract from the purpose for which a refuge was established and the mission of the Refuge System.

To ensure compatibility with refuge purposes and mission of the Refuge System, fishing is conducted in accordance with state and federal regulations and supplemented by refuge-specific regulations (50 CFR 32.65). However, the Refuge Manager may, upon annual review of the fishing program, impose further restrictions on fishing, recommend the refuge be closed to fishing, or further liberalize fishing regulations up to the limit of state regulations. The refuge will restrict activity if it becomes inconsistent with other, higher priority refuge programs or endangers refuge resources or public safety. Potential impacts of fishing may include:

- Accidental or deliberate introductions of non-native species that may negatively affect native fish, wildlife, or vegetation. The refuge does not permit use of live minnows in order to prevent the likelihood of introductions of non-native fish.
- Birds may ingest sinkers, hooks, lures, and fishing line. Ingested tackle may cause damage or penetration of the mouth or other parts of the digestive tract, resulting in impaired function or death.
- Negative impacts on water quality from human waste and litter and motorboats.
- Bank and trail erosion from human activity, which may increase aquatic sediment loads of streams and rivers or alter habitat/vegetation in ways harmful to fish or other wildlife.
- Conflicts between anglers and other user groups.

To the best of our knowledge, there are negligible impacts to wildlife populations, including special status species, or habitats from lead tackle. Fishing is not expected to meaningfully affect wildlife population health on the refuge, in relation to the background rate of residual lead into the environment from fishing activities at large. The best available science suggests that where lead tackle use is authorized, impacts to wildlife from direct ingestion are observable but would not approach a threshold of significance at the population level (AFWA 2018), while food chain biomagnification is negligible (Behan et al. 1979; Eisler 1988; Wong et al. 1978).

The refuge continues to educate anglers on lead-free alternatives and encourage voluntary use of lead-free tackles for fishing. The nature of fishing on the refuge

reduces the potential that wildlife will be at great risk from lead exposure, especially given the large area for fishing, multiple access sites, and the smaller number of anglers. The number of individuals of a species that may be exposed to toxic amounts of lead are so small that we do not anticipate any long-term population level effects to wildlife residing on or migrating through the refuge. For more information on the effects of lead as a result of fishing, including threatened, endangered, and special status species, habitat, and the human environment, see the 2021 Eastern Virginia Rivers National Wildlife Refuge Complex Hunting and Recreational Fishing Plan and associated Environmental Assessment.

Short-term impacts

Vegetation and Soils

The current number of anglers comprises a small fraction of the refuge's total visitation. Negative impacts of recreational fishing include the temporary trampling of vegetation which can lead to plant clearing and increased erosion. Fishing access will be available on docks on the Wilna, Hutchinson and Cat Point Creek Units as well as banks at the Wilna and Laurel Grove ponds. With fishing limited to designated areas and bank fishing allowed only in ponds and low energy waterways where erosion is less prevalent, soils and vegetation are predicted to be minimally disturbed by fishing in the refuges.

Lead availability in some wetlands and waterways may exist through anglers' use of lead sinkers and jigs for fishing. "Sinkers" are weights of various sizes and shapes used to sink a fishing line below the surface of the water; "jigs" are weighted hooks, often brightly painted or otherwise decorated, used as lures in angling. Other fishing tackle components may contain lead as well. When lost or inadvertently discarded, lead fishing gear can remain in the bottom substrate.

Water Resources

Paths used by anglers can affect the hydrology of an area by altering drainage patterns. Some anglers may walk off trail to access a fishing area, thereby creating new trails and affecting drainage. However, since fishing is only designated on limited banks, fishing docks or by hand-launchable boats with electric motors, canoes, or kayaks or similar vessels, these effects will be lessened. The recreational fishing program would not contribute to pollution per any federal or state water quality standards by contributing pollutants to waterways. At the anticipated levels of use, fishing is not expected to have any adverse effects on water resources.

Fish Species

Recreational fishing could potentially cause negative impacts to fish populations if it

occurs at unsustainably high levels or is not managed properly. Potential impacts to fish populations from fishing include direct mortality from harvest, injury to fish caught and released, changes in age and size class distribution, changes in reproductive capacity and success, loss of genetic diversity, altered behavior, and changes in ecosystems and food webs (Lewin et al. 2006, Klein 1993). While fishing does remove individuals from the population, we do not anticipate increased fishing opportunities will affect the fish population as a whole.

According to the 2015-2016 Angler Survey, two thirds of anglers partake in catch and release and rarely take. The most popular species targeted by anglers include blue catfish, largemouth bass, striped bass and crappie (VADWR 2016). Catch rates varied over all months and by species throughout the survey time-period. Harvest rates of all species were very low except for hickory shad and white perch (VADWR 2016). Blue catfish, not a native species, were caught and harvested the most (VADWR 2018). High numbers of channel catfish, hickory shad and white perch were also harvested (VADWR 2016). Largemouth bass were caught in very high numbers but were rarely harvested. Largemouth bass and blue catfish are common and have increasing numbers found in Rappahannock River waters (VADWR 2016). Anadromous fish including American shad, Atlantic sturgeon, blueback and alewife have declining populations throughout the state and are not legal for take in Virginia (Brittle 2020).

The fishing program is designed to be sustainable through time, given relatively stable conditions, particularly because of close coordination with VADWR. Anglers must abide by the state's seasons, catch limits, and regulations, which were designed to protect the state's fish populations. The state fisheries biologist suggests that recreational fishing has a very low impact on local Virginia fish populations (Brittle 2020). The refuges' fishing pressure is projected to be minimal and sustainable.

The historic requirement for lead-free tackle remains in effect at the Wilna Pond and Laurel Grove Pond fishing locations; this requirement is aimed at protecting sensitive loons, swans, and other diving migratory waterbirds. In the 2021 Hunt and Fish Plan and associated EA, the FWS implemented a lead tackle requirement across all fishing locations effective on September 1, 2026. The proposed removal of the refuge-wide lead tackle requirement is not expected to meaningfully impact fish population health on the refuge. Although lead is a potent neurotoxin (Eisler 1988), Rattner et al. (2008) did not find any reports in the scientific literature of lead toxicosis resulting from lead fishing tackle in any species of fish, amphibians, or invertebrates. A literature review completed by the Association of Fish and Wildlife Agencies (2018) likewise failed to find any such reports. Therefore, the continued use of lead tackle at other fishing locations on the refuge likely will not have negative impacts on refuge fish populations.

Non-Target Species

Fishing has the potential to increase disturbance to other wildlife that use fishable waters, including waterfowl and wading birds. Human activity, including walking trails and boat use, has the potential to affect the behavior, distribution, and abundance of waterbirds due to disturbance. Several studies have examined the effects of recreation on birds using habitats adjacent to trails and roads through wildlife refuges and coastal habitats in the eastern United States. Overall, the existing research demonstrates that disturbance from recreational activities has at least temporary effects on the behavior and movement of birds and other animals within a habitat or localized area. Presence and increased trail density as caused by fishing may cause bird movement and nesting in habitats that are less disturbed (Burger 1981, Klein et al. 1995, Burger and Gochfeld 1998, Thompson 2015) in addition to slower development in some songbird species during periods of increased public use (Remacha et al. 2016). Mammals tend to not be as impacted as birds and continue to use trails despite increased public use (Kays et al. 2017). Noise caused by visitors also resulted in increased levels of disturbance (Burger 1986, Klein 1993, Burger and Gochfeld 1998). An incidental benefit to upland habitats and associated species would derive from careful, strategic management of this fishing program. Public awareness and appreciation of the refuge, its habitats, and resources would inspire some to volunteer or in other ways support the refuge needs and conservation of resources on the landscape in general.

Increases in annual visitor numbers during the daytime (public use sites would be open only from official sunrise to sunset) will surely result from parking areas, informational kiosks, and other planned activities described herein, although it is difficult to predict a frequency or rate. Visitors at these sites may flush rafting waterfowl or eagles hunting the marshes within view of a trail, launch, or pier; although we anticipate that in the winter public use at these locations would be less than moderate, at least in the early years after opening. Higher rates of public use would occur during the warmer months, when most waterfowl are on northern breeding grounds. Wetland species likely to be disturbed and flushed during the warmer months include bald eagle (fewer than in winter), belted kingfisher, mallard, great blue heron, and basking turtles. The sites are not particularly sensitive, rare, or in close proximity to nest areas, and there are protected and secluded areas nearby where disturbed wildlife can relocate to. Disturbance is, therefore, anticipated to be minor, temporary, and infrequent and would close refuge areas, as needed, to fishing and boating if sensitive nest sites were ever to occur.

Paths from parking areas to fishing access have the potential to disturb forest interior dwelling bird species. Direct impacts on wildlife in the form of disturbance can be expected wherever humans have access to an area, and the degree may vary

depending on the habitat type. In general, human presence disturbs most wildlife, which typically results in a temporary displacement without long-term effects on individuals or populations. Some species, such as wood thrush, will avoid areas frequented by people, such as developed trails and structures, while other species, particularly highly social species such as eastern tufted titmouse, Carolina chickadee, or Carolina wren, seem unaffected or even drawn to a human presence. When visitors approach too closely to nests, they may cause the adult bird to flush exposing the eggs to weather events or predators. Provided that visitor use is confined to designated areas, disturbance during the breeding season will be limited to those areas. Overall, direct impacts from access to fishing areas will be greatly reduced with our facilities avoiding area-sensitive habitats (interiors of grasslands and forests) and being confined to a 300-foot edge zone.

A potential direct negative impact exists for wetland and open waterbird species (such as osprey, herons, and waterfowl) from lost fishing gear; specifically, hooks, lures, and litter, or becoming entangled in fishing line or hooks. The extent to which these bird species are impacted by fishing tackle currently is unknown. We will continue to work with our fisheries assistance office and the state in implementing a public education and outreach program on these issues.

Fishing and boat traffic in adjacent areas of Rappahannock River Valley NWR are already well-established activities and are not predicted to cause much additive disturbance to local wildlife. Additionally, since fishing actions will be limited to designated docks, non-motorized or electric boats and designated banks only in Wilna and Laurel Grove, effects on other wildlife will be limited. In addition, fishing is currently allowed in nearby state waters, and we do not expect the limited opportunities available at the refuges to result in a dramatic change from existing conditions.

In the 2021 Hunt and Fish Plan and associated EA, the FWS decided to implement a lead tackle ban across all fishing sites on the refuge effective on September 1, 2026. The proposed removal of the lead-free tackle requirement may impact wildlife health, but the continued use of lead tackle in the other freshwater docks is not expected to meaningfully impact wildlife populations because this includes only two locations and the amount of discarded lead in the environment at these locations is very small compared to the background rate of fishing activities in the Rappahannock watershed overall.

Residues from lead-based fishing gear can cause negative health effects, up to and including mortality, when they are unintentionally ingested by wildlife. The best available science suggests these impacts from direct ingestion where lead use is authorized are less than significant at the population level (AFWA 2018). Lead fishing

tackle still represents a potential source of lead poisoning in susceptible birds, primarily loons and swans (Grade et al. 2019, Pokras and Chafel 1992, Rattner et al. 2008, Strom et al. 2009) and for diving waterbirds where lead fishing tackle remains in the sediment (Franson et al. 2003, Grade et al. 2019, Pokras et al. 2009, Scheuhammer and Norris 1996). These species may also be at risk for lead poisoning from lead tackle ingestion.

The continued use of lead tackle on the refuge and the associated impacts to the environment resulting from fishing opportunities will have a negligible cumulative impact on lead in the environment when compared to fishing activities allowed in the local and regional area. The refuge will continue to encourage the voluntary use of lead-free tackle in order to reduce impacts to wildlife and habitat.

Threatened and Endangered Species and Other Special Status Species

Federal endangered or threatened species that are found (or may be found) within the acquisition boundary of the refuge include Indiana bat, Northern long-eared bat, Eastern black rail, Atlantic sturgeon, yellow lance mussel, sensitive joint-vetch, small whorled pogonia, and swamp pink. Proposed species include the tricolored bat, green floater mussel, and the monarch butterfly. Special federal status species include bald eagles. Overall, it is expected that this use will not conflict with recovery or protection of these species. There have been no traceable issues to date. A detailed Intra-Service Section 7 Evaluation can be found in Appendix J. It provides further analysis on potential impacts, including from lead, to the species listed below. A summary of potential impacts is included here.

Atlantic sturgeon

The Chesapeake Bay Atlantic sturgeon population is listed as federally endangered. Atlantic sturgeon utilize large coastal rivers and estuaries including the Rappahannock River as important spawning grounds. Virginia Commonwealth University and Virginia Institute of Marine Science have conducted trawl surveys and confirmed fry and adult Atlantic sturgeon offshore of Rappahannock River Valley NWR. While Atlantic sturgeon are protected by the Endangered Species Act, recreational anglers have caught few migrating sturgeon in their nets while catfishing. However, this is not significant and is much less than commercial fisherman bycatch and boat strikes which are not negligible (Brittle 2020). However, anglers are not allowed to target them. It is unlikely but possible for incidental take of this species. Potential impacts to Atlantic Sturgeon were coordinated separately with the Virginia Department of Wildlife Resources. The refuge does not anticipate any impacts to Atlantic sturgeon as a result of the fishing program, including from the use of lead fishing tackle. Given the relatively small number of anglers using the waterbodies on the refuge, the likelihood that any discarded lead tackle would

concentrate to the level that it negatively impacts Atlantic sturgeon is extremely low.

Indiana bat, Northern long-eared bat and tricolored bat

Indiana, Northern long-eared, and tricolored bats utilize the refuge during summer months and mostly return to their hibernacula in the western part of the State during the winter. Fishing is not allowed on the refuge before sunrise and after sunset when bats are actively out feeding. Fishing does not involve any of the typical disturbances to bats (loud noise, lights, fire, tree removal, entering a hibernaculum) so disturbance events would be unlikely.

The potential for bats to be adversely affected by lead bioaccumulation is discountable due to their diet and foraging habits. Lead tackle fragments would have to break down in the soil to be taken up by plants near the area in which the fragments fall on or penetrate the soil surface. Typically, however, plants do not take heavy metals up until they have reached critical thresholds in the soil (Sharma and Dubey 2005). If lead is taken up by plants, it is mainly through the root system and partly in minor amounts through the leaves. Inside the plants lead accumulates primarily in the root, but some is translocated to the aerial portions. Larvae of certain herbivorous insect species could ingest some of the lead when they eat the exposed plants. Some of the insects could then be consumed by bats. The bats' diets are comprised of insects such as moths, flies, wasps, leafhoppers, caddisflies and beetles, only some of which are herbivorous. In addition, bats are transitory in nature and will not consume their entire diets on the refuge area. Considering the chain of events that are necessary for exposure and the small amount of lead that would contribute to lead concentrations in refuge soils, it is unlikely that bats that occur on refuges will consume lead derived from tackle discarded or lost by anglers on the refuge. Impacts are not likely to adversely affect Indiana bats or Northern long-eared bats and are not likely to jeopardize the continued existence of tricolored bats.

Eastern black rail

The Eastern black rail is a sparrow-sized, secretive marsh bird. Eastern black rail habitat can be tidally or non-tidally influenced, and range in salinity from salt to brackish to fresh but must be densely vegetated. At Rappahannock NWR, the rail is only present during the breeding season with no known occurrences of overwintering birds in the area. Fishing activity might cause short-term disturbance due to presence of people out on the water and piers while rails are in adjacent dense marsh. This disturbance would be minimal in nature and would not greatly alter rails natural behavior. Damage to rail habitat from fishing would be negligible as it is unlikely to occur at all with fisherman restricted to a few designated locations and these are mostly piers.

The potential for lead impacts to Eastern black rails is discountable because of the

Appendix H – Rappahannock River Valley NWR Fishing Compatibility Determination

bird's preferred habitat which can be tidally or non-tidally influenced, and range in salinity from salt to brackish to fresh but must be densely vegetated. Since fishing, including the use of lead tackle, is highly unlikely to overlap with Eastern black rail in time or space, this species is not likely to be adversely affected by the proposed activities.

Sensitive joint-vetch, small whorled pogonia, and swamp pink

Sensitive joint-vetch is an annual legume that typically flowers July through early October in the intertidal zone of coastal marshes where plants are flooded twice daily. The species seems to prefer the marsh edge at an elevation near the upper limit of tidal fluctuation, where soils may be mucky, sandy, or gravelly (USFWS 2010). the refuge area, occurs only along the edges of freshwater tidal creeks and marshes. Fishing from the refuge only occurs at a few designated locations that fall within vetch habitat, and these are mostly pier, thus damage to vetch from fishing associated foot traffic is not anticipated. The refuge also does not allow the launching of larger gas-powered vessels and thus little wake from vessels launched at the refuge is anticipated.

Small whorled pogonia grows under canopies that are relatively open or near features that create long-persisting breaks in the forest canopy such as a road or a stream. It grows in mixed deciduous or mixed-deciduous/coniferous forests. They require overwintering with mycorrhizal fungi to germinate and form above ground in late August to September (USFWS 2011). It may occur at the refuge.

Swamp pink is a perennial wetland species with evergreen leaves. Swamp pink requires specific hydrologic conditions, and no populations are known to occur at Rappahannock NWR. It is very unlikely that any fishing would occur in potential swamp pink habitat.

While a small, dispersed concentration of lead may be present on the landscape due to use of tackle containing lead, it is not likely to adversely affect sensitive joint-vetch, small whorled pogonia, and swamp pink. Sharma and Dubey (2005) found that excess lead in plants causes a variety of toxic symptoms including stunted growth, chlorosis, blackening of root systems, inhibited photosynthesis, disrupted mineral nutrition and water balance, and altered plant hormones. Angler presence will be dispersed and they are unlikely to be concentrated in the areas where these species could be found. Also, the migration of lead from soil to roots and other parts of the plant is expected to be minimal, so the use of lead for fishing activities is not likely to adversely impact these species.

Green floater and yellow lance mussels

The yellow lance are freshwater mussels that are found in moderate flowing water with high dissolved oxygen content in riverine or larger creek environments with coarse to medium sand beds. The green floater thrives in similar habitats but prefers the quieter pools and eddies. Yellow lance is present at Rappahannock NWR, and green floater may be present there as well in the northern Rappahannock River. Fishing would only impact the mussels if gear touched the bottom. Boats are not typically anchored during fishing activities on the Rappahannock and properly weighted gear should not touch the bottom. As there is only a small amount of yellow lance habitat in the western portion of the refuge and no known populations (survey in 2024), fishing should not impact this species.

Lead accumulation from fishing activities is not likely to adversely affect mussel populations because they are aquatic species that live in flowing waters. There is a chance that lead could enter the water where mussels live; however, lead is not usually soluble in water unless particular conditions exist such as soft acidic water which contains a higher dissolved lead content (Rattner et al. 2008). Even if the amount of lead added to the refuge from tackle reaches the rivers, it is not likely to accumulate in the water column of the flowing rivers and affect filter feeders like mussels.

Monarch butterfly

Monarch butterflies use the refuge grasslands, wetlands, old fields, agricultural margins, and roadsides during spring and fall migration, as well as during the spring and summer breeding season. Fishing activities have not been shown to have negative impacts on monarch breeding or migration. Anglers are less likely to walk through monarch butterfly habitat, as they will use established trails and access points.

Anglers are most likely to use tracts through forested parts of the refuge, where monarchs and their nectaring plants generally do not occur. Furthermore, given that only light foot travel from anglers accessing the area is expected to occur on these acres, we anticipate that any potential damage to nectaring plants from foot traffic disturbance will be extremely unlikely, and therefore considered discountable. These impacts are considered insignificant and discountable, as the disturbance would consist of monarchs being temporarily flushed by anglers, a similar reaction to other temporary disturbances that monarchs may naturally experience without long-term effects. Anglers are not likely to overlap with areas where monarch and their plants are known to occur.

The potential for lead impacts to monarchs is discountable due to their diets. Adult monarch butterflies feed on nectar. However, exposure relies on the very unlikely occurrence that lead concentrations in the soil from fishing activities reach high

enough levels for uptake by plants, and in this case, it would further require uptake by milkweed and the specific plants that monarchs rely on for nectar sources. Given that bioaccumulation through plants into caterpillars or butterflies is discountable, the proposed activities are not likely to impact the monarch butterfly population.

Bald Eagle

After four decades of protection under the Endangered Species Act, the bald eagle was officially removed from the federal list of endangered and threatened wildlife in 2007. However, they are still protected under the Bald and Golden Eagle Act (Eagle Act) and the Migratory Bird Treaty Act. The FWS considered potential impacts to eagles under the Refuge Improvement Act in this CD and under NEPA in the associated 2026 CatEx.

Permitting public access to any waterfront or marsh managed by the refuge holds the possibility of affecting bald eagles. Impacts may either be displacement or temporary disturbance depending on extent of use of a given site by visitors and eagles.

However, bald eagles use the trees along Mount Landing Creek (Hutchinson Tract), Laurel Grove Pond, and Wilna Pond, but not in high concentrations. The shoreline at Toby's Point is located in a concentration area. As trees mature and forest riparian buffers are improved, sites with low concentrations will likely increase in importance to bald eagles. We will avoid potential adverse impacts to bald eagles by strictly following the management guidelines developed in consultation with the Virginia Department of Wildlife Resources and the Center for Conservation Biology. These include sight and distance setbacks from nests and concentration areas, and time-of-year restrictions.

With regards to potential impacts from lead, eagles are both predatory and engage in scavenging of fish carcasses and gut piles left in the environment from fishing activities. This may present a risk of lead exposure from lead fragments remaining in the carcass/gut pile (Haig et al. 2014; Church et al. 2006; Hunt et al. 2006; Pauli and Buskirk 2007; Herring et al. 2016). Other avian scavengers with similar behavior are likely to face similar exposure.

Visitors and Users

Rappahannock River Valley NWR is open to all six of the FWS's priority public uses (hunting, fishing, wildlife observation, wildlife photography, environmental education and interpretation). In 2025, over 12,000 people visited the refuge for non-consumptive nature-based recreation. Approximately 1,450 visitors participated in hunting and fishing (consumptive uses) on the refuges. Of that participation, fishing accounted for more than 60 percent of those visits.

Fishing occurs in designated areas and is not expected to cause significant conflicts with other user groups. Expanded fishing opportunities would positively contribute to appreciation and protection of fish and wildlife, both on and off the refuge. The beneficial impacts of providing this wildlife-dependent activity, with some modest increases, include helping meet the existing and future demands for outdoor recreation and education. Only negligible, short-term impacts to user groups have occurred and are anticipated to occur in the future. If conflicts arise among user groups, mitigation efforts can be implemented to ensure that the proposed action will not have significant impacts to other user groups. Mitigation measures may include providing additional education and outreach, providing additional sanitary facilities, or creating zones to separate groups of users.

Long-term impacts

The refuge fishing program is designed to be sustainable, given relatively stable conditions, particularly because of close coordination with the state. Additionally, the proportion of the refuge's harvest of these species is negligible when compared to local, regional, and statewide populations and harvest. Thus, we anticipate no detrimental, long-term impacts from fishing on fish, non-target wildlife, listed species, abiotic resources, or visitor use and experience on the refuge.

Public Review and Comment

The draft CD was available for public review and comment for 30 days from May 27, 2026 to June 26, 2026. The public was made aware of this comment opportunity through a press release and social media posting. Federally recognized tribes were contacted on January 9, 2026 to comment on proposed hunting rule changes. No comments were received. Coordination with the State of Virginia (Virginia Department of Wildlife Resources) occurred in May 2026 and a response was received on June 25, 2026. A hard copy of this document was posted at the Eastern Virginia Rivers National Wildlife Refuge Complex Headquarters at 336 Wilna Road Warsaw, Virginia 22572. It was made available electronically on the refuge website: www.fws.gov/refuge/rappahannock-river-valley.

A summary of public comments received as part of the 2026-2027 Hunting and Fishing Rulemaking process can be found in the Eastern Virginia Rivers NWRC specific categorical exclusion.

Determination

Is the use compatible?

Yes

Stipulations Necessary to Ensure Compatibility

To ensure compatibility with the refuge's purpose and the Refuge System mission, fishing can occur at the refuge in accordance with state and federal regulations and special refuge-specific regulations (50 CFR 32.38) to ensure that wildlife and habitat management goals are achieved, and that the program is providing a safe, high quality fishing experience for participants. This fishing program and impacts on wildlife species will be monitored and potentially modified or eliminated if any of the program's components are found not compatible. Adherence to the regulations, as detailed in the 2026 Hunting and Recreational Fishing Plan and associated hunt-specific documents, will ensure compatibility with the purpose for which the refuge was established. The following stipulations are necessary to ensure compatibility:

- All activities will comply with the Bald Eagle Protection Guidelines for Virginia, jointly developed by the U.S. Fish and Wildlife Service and the Virginia Department of Wildlife Resources, in consultation with the center for Conservation Biology.
- Only use of non-motorized or electric boats are allowed when fishing from watercraft.
- Fishing will be permitted only in designated areas to prevent erosion and degradation of wetlands and water quality.

Justification

Fishing is a priority public use in the Refuge System through which the public can develop an appreciation for fish and wildlife and reinforced as a priority use by Secretarial Order 3356 (September 15, 2017). The FWS policy is to provide expanded opportunities for wildlife dependent public uses when compatible and consistent with sound fish and wildlife management and ensure that they receive enhanced attention during planning and management. The Refuge System Improvement Act of 1997 identifies fishing as a priority public use. Priority public uses are to receive enhanced consideration when developing goals and objectives for refuges if they are determined to be compatible. Providing fishing opportunities will promote public appreciation and support for the refuge. Stipulations above will ensure control and provide management flexibility should detrimental impacts develop. Allowing this use furthers the mission of the Refuge System by providing a wildlife dependent recreational use for benefit of the American public while conserving fish, wildlife, and plant resources. This activity is a compatible use that will not materially interfere with

or detract from the mission of the Refuge System or the purposes for which the refuges were established.

Signature of Determination

MARCIE
KAPSCH



Digitally signed by
MARCIE KAPSCH
Date: 2026.08.20
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Refuge Manager Signature and Date

Signature of Concurrence

MARCIA
PRADINES LONG



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PRADINES LONG
Date: 2026.08.21 09:48:04
-04'00'

Refuge Chief, Northeast Region Signature and Date

Mandatory Reevaluation Date

2041

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CATEGORICAL EXCLUSION CHECKLIST FOR NEPA COMPLIANCE

Part I. Proposed Action

Eastern Virginia Rivers National Wildlife Refuge (NWR) Complex is proposing to expand hunting opportunities on James River, Presquile and Rappahannock River Valley NWRs. James River, Presquile and Rappahannock River Valley NWRs propose opening to red fox, bobcat, raccoon, skunk, opossum and groundhog. Presquile NWR also proposes opening to squirrel and rabbit. Rappahannock River Valley NWR proposes adding an additional 85 acres to the current hunt areas. James River NWR proposes closing 160 acres to hunting for safety concerns. As per the 2021 Hunting and Recreational Fishing Plan, almost all the areas where hunting expansions are proposed were already evaluated and opened to other furbearers and small game. These new hunting opportunities will align with existing state, local, and refuge-specific regulations (50 CFR 32.57).

In 2021, all three NWRs in the complex implemented a requirement for lead-free ammunition for small game (squirrel and rabbit), coyote, and turkey effective immediately (see *Federal Register* Docket FWS-HQ-NWRS-2021-0027). The complex NWRs also set forth a requirement for lead-free ammunition for white-tailed deer hunting planned for a September 1, 2026 effective date. In response to current lack of reasonable and prudent alternatives, and recent directives aimed at reducing regulations (Executive Order 14192, Unleashing Prosperity Through Deregulation, dated January 31, 2025; Secretarial Order (S.O.) 3421, Achieving Prosperity through Deregulation, dated February 8, 2025; and S. O. 3447: Expanding Hunting and Fishing Access, Removing Unnecessary Barriers, and Ensuring Consistency Across the Department of Interior Lands and Waters, dated January 7, 2026) the U.S. Fish and Wildlife Service (FWS) proposes to rescind the implemented lead-free requirements and reverse the planned lead-free requirements.

There are some historical ammunition and tackle requirements that are not changing from the current station-specific regulations across the complex. The historical, federal nationwide non-toxic shot requirement for ducks, geese, brant, swans, and coots from 1991 remains in effect (50 CFR 20.21(j)). Historical lead-free tackle restrictions will also still be in effect at Rappahannock River Valley NWR in the Wilna Pond and Laurel Grove Pond (50 CFR 32.65(m)). The historical lead-free fishing tackle requirement at these two ponds was aimed at protecting sensitive loons, swans, and other diving migratory birds.

Part II. Categorical Exclusion Identifier

516 DM 1 (8.5)(B)(7) “Minor changes in the amounts or types of public use on FWS or State-managed lands, in accordance with existing regulations, management plans, and procedures.”;

and

516 DM 1 (8.5)(B)(9), “Minor changes in existing master plans, comprehensive conservation plans, or operations, when no or minor effects are anticipated. Examples could include minor changes in the type and location of compatible public use activities and land management practices.”

Name of the agency or bureau that originally established the categorical exclusion proposed for application

U.S. Fish and Wildlife Service

Part III. Categorical Exclusion Justification

Opening the proposed additional hunting opportunities on refuges, including furbearers and small game, was evaluated in the 2021 Hunting and Recreational Fishing Plan and associated Environmental Assessment (EA). The minor impacts to the human environment of adding these to the list of huntable species would be similar to those analyzed in the EA. The proposed areas for hunting these species are already open to other species and we do not expect a significant number of any of these species to be harvested. The additional acreage opening is only 85 acres as compared to the 7,181 acres already open to hunting. We estimate that only two (2) additional hunters will utilize this opportunity. Removal of 160 acres of huntable acreage at James River NWR would only reduce impacts of the hunting program.

Nationwide, 5% of refuge visitors participate in hunting and only 18% of refuge visitors participate in freshwater fishing (Dietsch et al. 2025). Even though participation in hunting and fishing on refuge lands remains strong, these activities still represent a relatively minor yet important contribution to the robust use of refuge lands for wildlife-dependent recreation overall.

The nature of hunting and fishing at Eastern Virginia Rivers NWR Complex, especially given the size of the refuges and multiple access sites, reduces the likelihood that residual discharged lead is highly concentrated in one area. The amount of residual lead introduced every year continues to decline as many

hunters and anglers are voluntarily switching to lead-free ammunition and tackle, and the number of new hunters and anglers expected to choose lead ammunition and tackle because of the proposed expansions is anticipated to be low.

The burden to hunters and anglers due to the higher cost and lower availability of lead-free ammunition and tackle has a potential to affect the economics and the quality of life of the American people. In 2024-2025, FWS launched a pilot program on seven national wildlife refuges to encourage hunters to use lead-free ammunition through financial incentives and education. An evaluation of the program showed high overall hunter satisfaction (80%), but half of the respondents reported difficulty finding lead-free ammunition, with additional barriers including lack of availability in specific calibers (21%), high cost (44%), and performance concerns (about one-third) (USFWS 2025). In some cases, the expense of hunting and fishing and complex regulations are barriers to participation, especially for new hunters and anglers (Council to Advance Hunting and the Shooting Sports & University of Montana 2023; International Hunter Education Association 2024). Mitigation measures (e.g., voluntary lead-free programs, education, seasonal restrictions) are in place, and areas remain closed with refuge-specific regulations where justified. Therefore, it is not reasonable and prudent at this time to create additional regulations on hunters and anglers.

Part IV. Extraordinary Circumstances Evaluation (43 CFR 46.215):

Select (x) yes or no to assess if any extraordinary circumstances apply.

Additional explanatory text may be added below each extraordinary circumstance.

Yes No

☐ ☒

a. Have significant impacts on public health or safety.

☐ ☒

b. Have significant impacts on such natural resources and unique geographic characteristics as historic or cultural resources; park, recreation or refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands; floodplains; national monuments; migratory birds; and other ecologically significant or critical areas.

An extraordinary circumstance would not apply in this case since we do not

anticipate any significant impacts on the refuge's natural resources. There is potential for residual lead in the environment from ammunition or tackle to have adverse impacts on wildlife, in addition to the inherent impacts of intentional harvest from hunting and fishing. Some species, including non-target wildlife, aquatic species, predators, and upland game, are susceptible to direct ingestion of lead from their foraging behavior and food sources. Mammalian and avian scavengers, including eagles, can be susceptible to lead poisoning when they ingest lead fragments or pellets in the tissues of animals killed or wounded by lead ammunition (Haig et al. 2014; Church et al. 2006; Hunt et al. 2006; Pauli and Buskirk 2007; Herring et al. 2016). Fragments and residues from lead-based hunting ammunition and fishing gear can cause negative health effects on wildlife, up to and including mortality, when they are unintentionally ingested. The best available science suggests that where lead ammunition use is authorized, the impacts from direct ingestion are less than significant at the population level (AFWA 2018), and although it may impact population growth rates, have not led to population declines in even the most susceptible species (Slabe et al. 2022). The Bald and Golden Eagle Protection Act (Eagle Act) protects bald eagles (the national emblem) and golden eagles from unauthorized take of the species. The FWS considered potential impacts to eagles under the Refuge Improvement Act in this CD and under NEPA in the associated 2026 CatEx. Eagles nest and forage on and near the refuge. These eagle species are both predatory and readily engage in scavenging of carcasses and gut piles left in the environment from hunting activities. This may present a risk of lead exposure from lead fragments remaining in the carcass/gut pile (Haig et al. 2014; Church et al. 2006; Hunt et al. 2006; Pauli and Buskirk 2007; Herring et al. 2016). Raptor populations have higher blood lead levels during the hunting season compared to the following spring, but seasonally high levels do not necessarily cause decreased fitness or survival (Bedrosian et al. 2012; Craighead and Bedrosian 2008; Craighead and Bedrosian 2009; Kelly and Johnson 2011). Other avian scavengers with similar behavior are likely to face similar exposure. Section 5(a)(3)(i) of S.O. 3447 states that lead ammunition may not be restricted unless there are site or species-specific scientific evidence of population-level impacts to wildlife. Although the current hunting and fishing program at Eastern Virginia Rivers NWR Complex presents a potential risk of adverse health impacts to wildlife from residual lead in the environment, these impacts have not currently been shown to be significant at the population level on the refuge. The Refuge System makes up 15% of the 640 million acres of federally managed lands and waters and

less than 1% of the 2.3 billion acres of land in the U.S. (DeSantis, 2018; U.S. Geological Survey Gap Analysis Project, 2024). The continued use of lead ammunition and tackle on the refuge and the associated impacts to the environment resulting from hunting and fishing opportunities will have a negligible cumulative impact on the overall amount of lead from hunting and fishing on state and private lands in the region.

Yes No

☐ ☒

c. Have highly uncertain and potentially significant environmental effects or involve unique or unknown risks.

☐ ☒

d. Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects.

☐ ☒

e. Have a direct relationship to other actions that implicate potentially significant environmental effects.

☐ ☒

f. Have significant impacts on properties listed, or eligible for listing, on the National Register of Historic Places as determined by the bureau.

- ☐ ☒ g. Have significant impacts on species listed, or proposed to be listed, on the List of Endangered or Threatened Species or have significant impacts on designated Critical Habitat for these species.

The proposed changes are not likely to adversely affect or will have no effect on any federally threatened or endangered species (please see Intra-Service Section 7 in Appendix J).

Yes No

- ☐ ☒ h. Significantly limit access to and ceremonial use of Indian sacred sites on Federal lands by Indian religious practitioners or significantly adversely affect the physical integrity of such sacred sites.

- ☐ ☒ i. Contribute to potentially significant effects resulting from the introduction, continued, existence, or spread of noxious weeds or non-native invasive species known to occur in the area or from other actions that promote the introduction, growth, or expansion of the range of such species (Federal Noxious Weed Control Act).

Pursuant to the National Environmental Policy Act of 1969, as amended (NEPA), and U.S. Department of the Interior (DOI) NEPA Implementing Regulations (43 CFR 46), and the DOI Handbook of NEPA Implementing Procedures (516 DM 1):

- ☒ The proposed action is covered by one or more DOI, bureau, or adopted categorical exclusions as provided by 43 CFR 46.210 or 516 DM 1, Appendix 2 and no extraordinary circumstances in 43 CFR 46.215 (a)-(i) apply. No further NEPA documentation will therefore be prepared (If applicable, attach any additional required environmental or cultural compliance documentation associated with the categorical exclusion).



An extraordinary circumstance could exist for the proposed action and either an environmental assessment or an environmental impact statement must be prepared.

Service signature approval:

Signature

MARCIE
KAPSCH

Digitally signed by
MARCIE KAPSCH
Date: 2026.08.20
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Date:

Title Refuge Manager

References

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Potomac River National Wildlife Refuge Complex Categorical Exclusion 2026-2027 Hunt and Fish Rule Public Comment Analysis Report and Response to Comments

Summary of Public Comment Period

On May 27, 2026, the Service released draft Categorical Exclusion, Environmental Action Statement, compatibility determinations (CDs), and hunt plan amendment documents for public review of proposed changes to hunting and fishing programs Potomac River National Wildlife Refuge Complex (NWRC). These analyses were included as supporting documents in the docket for the 2026-2027 Station-Specific Hunting and Sport Fishing Regulations published through the Federal Register on May 27, 2026 (Docket No. FWS-HQ-NWRS-2026-1223).

Members of the public were notified of the availability of the draft documents through the Federal Register and information posted on Potomac NWRC website. This public comment period for the proposed 2026-2027 Station-Specific Hunting and Sport Fishing Regulations was open for 30 days and ended on June 26, 2026. The public was encouraged to submit comments regarding the draft documents through the Federal Register.

Nature of Public Comments Received

An overall total of 19,680 comments were received. Approximately 91 percent were form letters or otherwise identical. Numerous letters, including form letters and otherwise identical letters, were also received both in support and against hunting on wildlife refuges. These letters were not specific to Potomac River Complex, so they are addressed in a national response, rather than in station specific responses. The State of Virginia, Department of Wildlife Resources (VDWR) submitted comments supportive of rescinding the non-lead ammunition requirement from the 2022 Hunting and Fishing Plan. They also express support for opening hunting for new species within the Potomac River NWRC. Lastly, they provided suggested clarifying changes for language within the package that were incorporated into the document for this rule-making cycle. No substantive changes were made as a result of VDWR's comments.

Response to Comments by Topic

This section summarizes the substantive comments received during the public comment period for the 2026-2027 Hunt and Fish Rule making process specific to the draft documents put out for public review. As defined in the Council on Environmental Quality's regulations for implementing the National Environmental

Policy Act, comments are considered substantive if they:

- question, with reasonable basis, the accuracy of the information in the document
- question, with reasonable basis, the adequacy of the environmental analysis
- present reasonable alternatives other than those presented in the environmental assessment
- cause changes or revisions in the proposal

Substantive comments are organized by topic and further consolidated into concern statements or new information. Comments have been summarized and paraphrased.

[Rescinding non-lead requirements](#)

The Service received several comments regarding the removal of lead ammunition and tackle restrictions at other refuges. Some commenters expressed support for removing these restrictions. Other commenters expressed opposition to these changes and asserted that the decision to reverse lead restrictions at these particular stations, while simultaneously retaining lead restrictions at other stations, was arbitrary and capricious and not supported by any new scientific evidence or analysis.

Our Response: The Service disagrees with the comment that it is arbitrary and capricious to reverse lead restrictions at some stations while retaining lead restrictions at other stations. Some stations have retained station-specific regulations requiring the use of lead-free ammunition or tackle, where it has been found compatible and aligns with State regulations, nearby State-managed lands, wetland areas important to waterfowl, or based on other site-specific concerns. Each station carefully evaluated possible impacts to the environment, including to endangered and threatened species, as part of the NEPA process. On stations where lead ammunition or tackle is allowed, The Service found that the number of hunters and anglers using lead ammunition or tackle would result in no more than a negligible increase of lead residue in the environment. As a result, The Service found there would be no significant impact to the environment from the use of lead ammunition and/or tackle for the station. Stations in the rule that retained lead restrictions demonstrate the thoroughness of analysis that was taken to appropriately apply lead restrictions where there are legitimate reasons to maintain the restriction. Reversal on lead restrictions is in alignment with S.O. 3447. The Service are committed to aligning with State regulations when possible, increasing consistency for stations within the same State, or complex, and removing unnecessary regulatory burdens on the hunting and sport fishing public. These updates to hunting and sport fishing programs are determined to be compatible based on site-specific evaluations, which are included in the supporting

documents.

The Service did not make any changes to the rule as a result of these comments.

Re: Virginia National Wildlife Refuges Hunt-Fish plan intra-Service consultation request

From Virginia Field Office, FW5 <virginiafieldoffice@fws.gov>

Date Mon 8/10/2026 12:08 PM

To Levesque, Laurence P <laurence_levesque@fws.gov>

Larry,

Thank you.

We have concluded our review and concur with your determinations. This email along with the self-certification letter and project review package, complete the review of your project in accordance with the Endangered Species Act of 1973 (16 USC 1536), as amended.

Should project plans change, surveys expire, or information on the distribution or status of proposed/listed species and/or proposed/designated critical habitat become available/change prior to the completion of project activities, this response is no longer valid and you must submit an updated project package.

Note that under 50 CFR 402.12(e) of the regulations implementing Section 7 of the ESA, the accuracy of official species lists should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information.

Best,

Jen



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Virginia Field Office
6669 Short Lane
Gloucester, VA 23061



Date: 8/7/26

Self-Certification Letter

Project Name: Virginia National Wildlife Refuges 2026-227 Hunt-Fish Rule

Dear Federal Action Agency:

Thank you for using the U.S. Fish and Wildlife Service (Service) Virginia Ecological Services online project review process. By submitting this letter, in conjunction with your project review package to our office for review, you are certifying that you have completed the online project review process for the project named above in accordance with all instructions provided, using the best available information to reach your determinations. From the date of receipt, our office has 60 days (50 CFR § 402.13(c)(2)) to review your project package. If we do not concur with the Section 7 determination(s) provided or if we have any questions/concerns regarding the information provided, you will be contacted. If you are not contacted during the 60-day review period, this letter and your project review package complete the review of your project in accordance with the Endangered Species Act (16 USC 1536), as amended (ESA). This letter also provides information for your project review under the National Environmental Policy Act of 1969 (P.L. 91-190, 42 USC 4321-4347, 83 Stat. 852), as amended. A copy of this letter and the project review package must be submitted to this office by the Federal action agency or their officially designated non-federal representative (per 50 CFR 402.08) for this self-certification letter to be valid. This letter and the project review package will be maintained in our records.

The ESA Section 7 Determination Table in the enclosed project review package summarizes your ESA analyses and determinations. These analyses resulted in a “no effect” and/or a “may affect, not likely to adversely affect” determination for proposed/listed species and/or proposed/designated critical habitat.

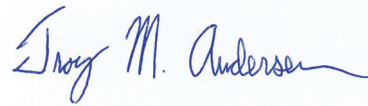
The use of the online project review process in strict accordance with the instructions provided as documented in the enclosed project review package resulted in reaching the appropriate determinations. Therefore, we concur with the not likely to adversely affect determination(s) for proposed/listed species and proposed/designated critical habitat provided in the ESA Section 7 Determination Table.

Should project plans change, surveys expire, or information on the distribution or status of proposed/listed species and/or proposed/designated critical habitat become available/change, this letter is no longer valid and you must submit an updated project package.

Note that under 50 CFR 402.12(e) of the regulations implementing Section 7 of the ESA, the accuracy of official species lists should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information.

Information about the online project review process including instructions and use, species information, and other information regarding project reviews within Virginia is available on our website (<https://www.fws.gov/office/virginia-ecological-services/virginia-field-office-online-review-process>). If you have any questions, please contact Troy Andersen of this office at (804) 728-0695.

Sincerely,

A handwritten signature in blue ink that reads "Troy M. Andersen". The signature is fluid and cursive, with a long horizontal flourish at the end.

Troy Andersen
Acting Field Supervisor
Virginia Ecological Services

Enclosures - project review package

United States Fish and Wildlife Service, Region 5
Section 7 Intra-Service Consultation Form

General Information

Station Names:

Rappahannock National Wildlife Refuge, Presquile National Wildlife Refuge, James River National Wildlife Refuge, Plum Tree Island National Wildlife Refuge, Featherstone National Wildlife Refuge, Occoquan Bay National Wildlife Refuge, Elizabeth Hartwell Mason Neck (Mason Neck) National Wildlife Refuge, Chincoteague National Wildlife Refuge, Wallops Island National Wildlife Refuge, Eastern Shore of Virginia National Wildlife Refuge, Fisherman Island National Wildlife Refuge, Great Dismal Swamp National Wildlife Refuge

Project Name:

Virginia 2026-2027 National Wildlife Refuge Hunting and Fishing Plan Amendments

Date Submitted:

05/28/2026

Phone Number:

(413)727-6722, Laurence Levesque

Project or Action Information

Region:

Northeast Region

State:

Virginia, North Carolina

Service Program, Geographic Area or Station Name, and [IPaC](#) Project Code (a Project Code is required for all projects submitted to Ecological Services):

Service Program:

National Wildlife Refuge System

List federally endangered, threatened, proposed and candidate species or designated or proposed critical habitat that may occur within the action area. Use IPaC to receive an official list (pursuant to 50 CFR 402.12) of species that should be considered when evaluating the potential impacts of the project:

Species	National Wildlife Refuge	Status
Northern long-eared bat	Rappahannock, Presquile, James River, Plum Tree Island, Featherstone, Occoquan Bay, Mason Neck,	E

Species	National Wildlife Refuge	Status
	Chincoteague, Wallops Island, Eastern Shore of Virginia, Fisherman Island, Great Dismal Swamp	
Indiana bat	Rappahannock, Presquile, James River	E
Tricolored bat	Rappahannock, Presquile, James River, Plum Tree Island, Featherstone, Occoquan Bay, Mason Neck	PE
Piping plover	Chincoteague, Wallops Island, Eastern Shore of Virginia, Fisherman Island	T
Red knot	Chincoteague, Wallops Island, Eastern Shore of Virginia, Fisherman Island	T
Roseate tern	Chincoteague, Wallops Island, Eastern Shore of Virginia, Fisherman Island	E
Eastern black rail	Rappahannock, Presquile, James River, Plum Tree Island, Chincoteague, Wallops Island, Eastern Shore of Virginia, Fisherman Island	T
Red-cockaded woodpecker	Great Dismal Swamp	T
Hawksbill sea turtle, Kemp's Ridley sea turtle, leatherback sea turtle	Chincoteague, Wallops Island, Eastern Shore of Virginia, Fisherman Island	E
Loggerhead sea turtle, green sea turtle	Chincoteague, Wallops Island, Eastern Shore of Virginia, Fisherman Island	T
American alligator	Great Dismal Swamp	Similarity of appearance (T)
Green floater mussel	Rappahannock	PT
Yellow lance mussel	Rappahannock	T
Northeastern beach tiger beetle	Plum Tree Island, Chincoteague, Wallops Island, Eastern Shore of Virginia	T
Monarch butterfly	Rappahannock, Presquile, James River, Plum Tree Island, Featherstone, Occoquan Bay, Mason Neck, Chincoteague, Wallops Island, Eastern Shore of Virginia, Fisherman Island	PT
Sensitive joint-vetch	Rappahannock, Presquile, James River	T
Small whorled pogonia	Rappahannock, Presquile, James River	T
Swamp pink	Rappahannock, Presquile, James River	T
Seabeach amaranth	Chincoteague, Wallops Island	T

*Status: E = Endangered, PE = Proposed Endangered, T = Threatened, PT = Proposed Threatened, C = Candidate Species.

Description of proposed project or action – if referencing other documents, provide the reference and executive summary:

The U.S. Fish and Wildlife Service (FWS) proposes to reverse the lead-free requirements detailed in select National Wildlife Refuge Hunting and Fishing Plans, in response to current lack of reasonable and prudent alternatives, and recent directives aimed at reducing regulations (Executive Order 14192, Unleashing Prosperity Through Deregulation, dated January 31, 2025; Secretarial Order (S.O.) 3421, Achieving Prosperity through Deregulation, dated Feb 8, 2025; and S.O. 3447: Expanding Hunting and Fishing Access, Removing Unnecessary Barriers, and Ensuring Consistency Across the Department of Interior Lands and Waters, dated January 7, 2026). The historical, federal nation-wide non-toxic shot requirement for ducks, geese, brant, swans, and coots from 1991 remains in effect (50 CFR 20.21(j)). Also, Virginia hunting regulations require lead-free ammunition for snipe, gallinule, moorhen and rail.

The proposed changes are:

Chincoteague NWR and Wallops Island NWR: Rescind the lead-free ammunition requirement for all migratory game bird species, which was effective in 2022. Rescind the lead-free ammunition requirement for all other species (raccoon, opossum, fox, coyote, white-tailed deer, sika and turkey), which was scheduled to become effective on September 1, 2026.

Eastern Shore of Virginia NWR and Fisherman Island NWR: Rescind the lead-free ammunition requirement for turkey, upland game, furbearers and nuisance species in the firearms zone on Eastern Shore of Virginia NWR, which was effective in 2021. Rescind the lead-free ammunition requirements for all migratory birds (dove, crow and woodcock) for Eastern Shore of Virginia NWR and Fisherman Island NWR, which was effective in 2021.

James River NWR, Plum Tree Island NWR, Presquile NWR and Rappahannock River Valley NWR: Open to furbearer and small game hunting (red fox, bobcat, raccoon, skunk, groundhog and opossum) at James River, Presquile and Rappahannock River Valley NWRs. Reduce hunting area by 160 acres at James River NWR due to safety concerns. Open 675 acres for turkey and coyote hunting, and 85 acres for all hunting at Rappahannock River Valley NWR. Rescind the lead-free ammunition requirement for small game (squirrel and rabbit), coyote and turkey and the lead-free tackle requirement for all four refuges that was effective in 2021. Reverse the lead-free ammunition requirement for white-tailed deer at all four refuges that was scheduled to become effective on September 1, 2026.

Featherstone NWR, Elizabeth Hartwell Mason Neck NWR, and Occoquan Bay NWR: Rescind the lead-free ammunition requirement for coyote, fox and turkey hunting, which was effective in 2021, and reverse the lead-free ammunition requirement for white-tailed deer, which was scheduled to become effective on September 1, 2026 for Mason Neck and Occoquan Bay refuges. Open to fall turkey hunting, late season antlerless white-tailed deer hunting and incidental take of groundhog, rabbit, and squirrel during deer hunts at Occoquan Bay NWR. Featherstone NWR does not have any proposed changes to its hunt program at this time. It is included in this analysis because the 2021 compatibility determination for hunting at Potomac River National Wildlife Refuge Complex included all three refuges of the complex together.

Great Dismal Swamp. Rescind the lead-free ammunition requirement for wild turkey, coyote and squirrel, which was effective in 2021, and reverse the lead-free ammunition requirement for all other species, including big game, which was scheduled to become effective on September 1, 2026.

The proposed reversal of these requirements is in response to concerns regarding availability and costs associated with the requirement. The burden to hunters and anglers due to the higher cost and lower availability of lead-free ammunition and tackle has a potentially significant economic effect as well as a potentially significant effect on the quality of life of the American people. In some cases, the expense of hunting and fishing and complex regulations are barriers to participation, especially for new hunters and anglers (Council to Advance Hunting and the Shooting Sports & University of Montana 2023; International Hunter Education Association 2024). Minimization measures (e.g., voluntary non-lead programs, education, seasonal restrictions) are in place, and areas remain closed with refuge-specific regulations where justified. Therefore, the U.S. Fish and Wildlife Service believes that it is not reasonable and prudent at this time to create additional regulations on refuge visitors.

Description of effects – explain the anticipated effects of the action on species and critical habitats listed in item III. Beneficial and adverse effects, as well as actions to avoid or minimize adverse effects should be identified. If the action may affect critical habitat, analysis should be based on likely effects to the critical habitat essential physical and biological features (PBFs) – these features may have been referred to as “primary constituent elements” in prior critical habitat designations. Request PBFs from field office if unknown. Attach an official Determination Key letter if one is available on IPaC:

Indiana bat, Northern long-eared bat, and tricolored bat

Northern long-eared bats typically spend winter hibernating in caves and mines called hibernacula. They use areas in various sized caves or mines with constant temperatures, high humidity, and no air currents. During the summer, Northern long-eared bats roost singly or in colonies underneath bark, in cavities or in crevices of both live trees and snags (dead trees). These bats seem to be flexible in selecting roosts, choosing roost trees based on suitability to retain bark or provide cavities or crevices. They rarely roost in human structures like barns and sheds. At Presquile National Wildlife Refuge (NWR), it is possible that Northern long-eared bats utilize the Rappahannock River during summer months and return to their hibernacula in the western part of Virginia during the winter. A Northern long-eared bat was caught at James River NWR in 2015. Northern long-eared bats have not been recorded at Featherstone, Occoquan Bay or Mason Neck NWRs during acoustic inventory surveys to date, but suitable habitat exists. Northern long-eared bats may occur in some hunting zones at Chincoteague, Wallops Island, Eastern Shore of Virginia, Fisherman Island, Rappahannock River Valley, or Plum Tree Island NWRs. Northern long-eared bats have been captured and recorded within Great Dismal Swamp NWR, both in Virginia and North Carolina. No summer maternity roosts are known to occur on the refuge currently.

Indiana bats have a maternity colony in Fort A.P. Hill, less than ten miles from Rappahannock River Valley NWR. Virginia Tech Cooperative Extension predicts that

Indiana bats use the Rappahannock River and tributaries as foraging and possible nesting sites. They conducted acoustic work on the Wilna Unit in 2016 and 2017 and have received a possible Indiana bat detection. Indiana bats form maternity colonies during the summer and return to their hibernacula in western Virginia in winter months (Germain et al. 2017).

Tricolored bats primarily use mines and caves in the winter to hibernate in colonies in the western part of the state and use upland forests to forage and roost throughout the rest of the year. At Presquile and James River NWRs, tricolored bats utilize the refuge during summer months and return to their hibernacula in the western part of the state during the winter. A tricolored bat was caught at James River NWR in 2015. Tricolored bats may be present at Plum Tree Island NWR and other NWRs in the state of Virginia, including James River, Plum Tree Island, Rappahannock River Valley, Featherstone, Occoquan Bay and Mason Neck.

The potential for bats to be adversely affected by lead bioaccumulation is discountable due to their diet and foraging habits. Lead bullet fragments would have to break down in the soil to be taken up by plants near the area in which the fragments fall on or penetrate the soil surface. Typically, however, plants do not take heavy metals up until they have reached critical thresholds in the soil (Sharma and Dubey 2005). If lead is taken up by plants, it is mainly through the root system and partly in minor amounts through the leaves. Inside the plants lead accumulates primarily in the root, but some is translocated to the aerial portions. Larvae of certain herbivorous insect species could ingest some of the lead when they eat the exposed plants. Some of the insects could then be consumed by bats. The bats' diets are comprised of insects such as moths, flies, wasps, leafhoppers, caddisflies and beetles, only some of which are herbivorous. In addition, bats are transitory in nature and will not consume their entire diets on the refuge area. Considering the chain of events that are necessary for exposure and the small amount of lead that would contribute to lead concentrations in refuge soils, it is unlikely that bats that occur on NWRs will consume lead derived from ammunition fired by hunters on the refuge. Impacts are not likely to adversely affect Indiana bats or Northern long-eared bats and are not likely to jeopardize the continued existence of tricolored bats.

Piping plover, red knot, and roseate tern

To protect piping plover, red knot, and roseate tern, staff at Chincoteague NWR close certain critical nesting, foraging, and roosting areas on Assateague, Assawoman, and Metompkin Islands to public entry from March 15 through September 15. This timing does not overlap with the overwhelming majority of hunting activity on the refuge. In addition, the refuge's hunt zones do not overlap with these species' preferred habitat of intertidal zone beaches and mudflats and effects are considered discountable. Even if lead could leach out into the beach habitat these species use, the increase in lead would be extremely minor and dispersed, and therefore insignificant.

The preferred habitat for roseate tern, red knot, and piping plover is intertidal zone beaches and mudflats. Wallops Island NWR has a minimal amount of this type of habitat as the refuge is comprised mainly of forest, shrub/scrub, and marshes. The hunting of big game, upland game, and upland migratory birds (dove, crow and woodcock) in upland areas is separated from beaches and mudflats by an expansive marsh. The hunting of marsh areas would

primarily be for the hunting of waterfowl and other marsh-obligate migratory game birds which currently requires lead-free ammunition. Thus, the use of lead ammunition will not occur within, or near, areas where shorebirds and terns occur and effects are considered discountable. Even if lead could leach out into the beach habitat these species use, the increase in lead would be extremely minor and dispersed, and therefore insignificant.

The piping plover nests on Fisherman Island, and refuge records dating from 1996 show nesting to occur with a maximum of six nesting pairs annually. Piping plovers have been observed in small flocks during migration. Red knots occur on Fisherman Island, and could occur on Eastern Shore of Virginia NWR, while roseate terns could occur on either refuge on beaches, intertidal zones or mudflats.

Because hunting and fishing, including the use of lead ammunition and tackle, is highly unlikely to overlap with piping plovers, red knots, or roseate terns in time or space, these species are not likely to be adversely affected by the proposed hunting activities.

Eastern black rail

The Eastern black rail is a sparrow-sized, secretive marsh bird. Eastern black rail habitat can be tidally or non-tidally influenced, and range in salinity from salt to brackish to fresh but must be densely vegetated. At Rappahannock NWR, the rail is only present during the breeding season with no known occurrences of overwintering birds in the area. Eastern black rail may be present at Presquile and James River NWRs. Eastern black rails may also be found on Plum Tree Island NWR where it may utilize the refuge's salt marsh during part of the year for habitat and for nesting (USFWS 2020). Near Eastern Shore of Virginia and Fisherman Island NWR, eastern black rails historically occupied the lower Delmarva Peninsula but have not been documented at either refuge. However, their occurrence during the winter months in salt marshes cannot be permanently ruled out. There is a small amount of suitable habitat on the Bull Tract unit. Eastern black rails do not occur on Chincoteague or Wallops Island NWRs.

The potential for lead impacts to Eastern black rails is discountable because of the bird's preferred habitat. Since hunting and fishing, including the use of lead ammunition and tackle, is highly unlikely to overlap with Eastern black rail in time or space, this species is not likely to be adversely affected by the proposed activities.

Red-cockaded woodpecker

The red-cockaded woodpecker (RCW) was a common species throughout the pinelands of the southeastern United States from New Jersey to Louisiana. When the species was listed in 1970, fewer than 10,000 RCWs remained throughout their former range. Loss of habitat and changes in silviculture practices principally lead to this decline. The FWS has reintroduced RCW within the pine-pocosin area southeast of Lake Drummond at Great Dismal Swamp NWR. Since 2015, RCW have been translocated into the refuge "Blocks" area annually. The population currently consists of approximately eleven individuals, residing in six cluster sites, with three to four potential breeding pairs/clusters per year. The 2,000-acre RCW management area has been selectively timbered to remove hardwood competition and create a more open area of pine, which is preferred by this species. The unit being managed for RCW would not be open to hunting as long as translocations continue in the area. During foraging, it is possible for RCW to move through or into other

areas of the refuge that are open to hunting. In addition, it is possible RCW will establish home territories in other areas open to hunting.

The potential for lead to cause adverse effects to RCW is considered discountable because of the bird's preferred diet. RCWs mostly eat arthropods and other insects with a small proportion of berries and seeds. Due to the minimal amount of environmental lead anticipated to result from the use on the refuge, it is very unlikely that concentrations in the soil from hunting activities would reach high enough levels for uptake by plants to then be consumed by insects. RCW is not a scavenger and therefore would not be exposed to lead fragments left behind in any gut piles. Due to very low anticipated levels of exposure, impacts from lead are not likely to adversely affect red-cockaded woodpeckers.

Green sea turtle, hawksbill sea turtle, Kemp's Ridley sea turtle, leatherback sea turtle, and loggerhead sea turtle

Five species of federally listed sea turtles use Assateague Island's ocean and bay waters. The leatherback sea turtle, Kemp's Ridley sea turtle, and the hawksbill sea turtle are listed as endangered species under the Endangered Species Act (ESA); the loggerhead sea turtle and green sea turtle are listed as threatened. Of the five sea turtles, only loggerheads are known to nest on Chincoteague NWR, which is the northern extent of its breeding range. Hunting activities do not occur where loggerhead sea turtles nest. Refuge beaches on Assateague, Assawoman, and Metompkin Islands at Chincoteague NWR will remain closed to hunting during the sea turtle nesting seasons. Federally listed turtles are present but not nesting and remain in the water; thus they will not overlap spatially with hunting activities. At Wallops Island NWR, the five species of federally listed sea turtles use ocean and bay waters in the area but are not found on the refuge. Loggerhead sea turtles are also present at Fisherman Island NWR and are potentially present at Eastern Shore of Virginia NWR, though they have not been documented to nest.

Since the sea turtles are separated from the proposed hunting activities, including the use of lead ammunition, in space, the species do not have the potential to be exposed to the effects of the proposed activities. Accordingly, the proposed hunting changes will not adversely affect the loggerhead sea turtle, and a determination of "no effect" for the other four species of listed turtle species is acknowledged.

American alligator

Suitable habitat for the American alligator is present at Great Dismal Swamp NWR, but the species has not been observed on the refuge. It is not expected that this species would ever be present on the refuge despite suitable habitat. Lead introduced on the refuge is not likely to adversely affect the American alligator because the species is not present in the project area and would therefore not be exposed to any lead.

Green floater and yellow lance mussels

The yellow lance are freshwater mussels that are found in moderate flowing water with high dissolved oxygen content in riverine or larger creek environments with coarse to medium sand beds. The green floater thrives in similar habitats but prefers the quieter pools and eddies. Yellow lance is present at Rappahannock NWR, and green floater may be present there as well in the northern Rappahannock River.

Lead accumulation from hunting or fishing activities is not likely to adversely affect mussels because they are aquatic species that live in flowing waters. There is a chance that lead could enter the water where mussels live; however, lead is not usually soluble in water unless particular conditions exist such as a body of water having higher acidity than is typically expected for freshwater. Even if the amount of lead added to the refuge from ammunition or tackle reaches the rivers, it is not likely to accumulate in the water column of the flowing rivers and affect filter feeders like mussels.

Due to several factors including unlikely spatial overlap between species and the presence of lead, very low anticipated concentrations of lead should it occur at all, and the specific acid conditions that would need to occur to make lead soluble in water and allow for impacts to the species, the proposed action is not expected to adversely affect yellow lance or jeopardize the continued existence of green floater.

Northeastern beach tiger beetle

Northeastern beach tiger beetles are found on Plum Tree Island NWR on long, wide, dynamic beaches with little human activity. Adult beetles are present from June through September. Larvae are present but buried in the sand year-round. None of the blinds designated for fishing are near suitable beetle habitat. The Northeastern beach tiger beetle is also found at Eastern Shore of Virginia NWR. A 1999 survey conducted by the FWS found 62 adult beetles on refuge property (Knisley and Hill 1999). Another eighteen adults were found on the abutting property owned by the Sunset Beach Resort. Northeastern beach tiger beetles are not known to occur on Chincoteague NWR. Only a subspecies, *Cicindela dorsalis media*, which is not federally protected, is found on Chincoteague's beaches. They do not occur on Wallops Island NWR and there is no suitable habitat. Effects are considered discountable due to the extremely low likelihood that beetles would be exposed to lead in the environment as there is little to no overlap between their habitat and recreational activities involving lead. The scarce amount of lead present on these NWRs further minimizes potential for exposure. Therefore, the proposed action is not likely to affect the Northeastern beach tiger beetle.

Monarch butterfly

At Chincoteague and Wallops Island National Wildlife Refuges, monarch butterflies are observed on nectar plants within beach strand habitat and impoundment management units during their peak migration (last two weeks of September through the first two weeks of October). Monarch butterflies typically concentrate on seaside goldenrod located along the Beach Road corridor and the dunes from Swan Cove Trail south to Toms Cove, which is closed to hunting. At Featherstone, Occoquan Bay, and Mason Neck National Wildlife Refuges, monarch butterflies use the refuge grasslands, wetlands, and roadsides during spring and fall migration, as well as during the spring and summer breeding season. Monarchs are also present at Rappahannock, Presquile (only about twenty acres of habitat), James River, and Plum Tree Island (all saltwater marsh so limited habitat) NWRs.

The potential for lead impacts to monarchs is discountable due to their diets. Adult monarch butterflies feed on nectar. However, exposure relies on the very unlikely occurrence that lead concentrations in the soil from hunting activities reach high enough levels for uptake by plants, and in this case, it would further require uptake by milkweed and

the specific plants that monarchs rely on for nectar sources. Given that bioaccumulation through plants into caterpillars or butterflies is discountable, the proposed activities are not likely to jeopardize the monarch butterfly.

Sensitive joint-vetch, small whorled pogonia, swamp pink, and seabeach amaranth

Sensitive joint-vetch is an annual legume that typically flowers July through early October in the intertidal zone of coastal marshes where plants are flooded twice daily. The species seems to prefer the marsh edge at an elevation near the upper limit of tidal fluctuation, where soils may be mucky, sandy, or gravelly (USFWS 2010). State surveys to locate sensitive joint-vetch have been conducted in James River and Presquile NWR but not Rappahannock River Valley NWR. It occurs along the edges of freshwater tidal creeks and marshes of the Rappahannock River (Rappahannock NWR) and James River (James River and Presquile NWRs). Sensitive joint-vetch occurs on wetland edges that are often not utilized during hunting and fishing. It is very unlikely that any deer, turkey or small game hunting would occur in this remote and wet environment.

Small whorled pogonia grows under canopies that are relatively open or near features that create long-persisting breaks in the forest canopy such as a road or a stream. It grows in mixed deciduous or mixed-deciduous/coniferous forests. They require overwintering with mycorrhizal fungi to germinate and form above ground in late August to September (USFWS 2011). It may occur at Rappahannock, Presquile or James River NWRs.

Swamp pink is a perennial wetland species with evergreen leaves. Swamp pink requires specific hydrologic conditions, and no populations are known to occur at Rappahannock NWR. Swamp pink occurs in wetland areas that are not often utilized during hunting and fishing.

Seabeach amaranth is an annual plant species that occurs on the upper beach and sparsely vegetated over wash fans and inter-dune areas. This species appears to require extensive areas of barrier island beaches and inlets functioning in a relatively natural and dynamic manner. This plant has been determined not to occur on Chincoteague or Wallops Island NWRs, and any impacts from hunting or the associated use of lead ammunition would be extremely unlikely to occur.

While a small, dispersed concentration of lead may be present on the landscape due to use of ammunition or tackle containing lead, it is not likely to adversely affect these listed plants. Sharma and Dubey (2005) found that excess lead in plants causes a variety of toxic symptoms including stunted growth, chlorosis, blackening of root systems, inhibited photosynthesis, disrupted mineral nutrition and water balance, and altered plant hormones. Rattner et al. (2008) found that migration of lead from soil to roots and other parts of plants is generally minimal (Sorvai et al. 2006). Studies have documented elevated lead levels in plants in the vicinity of shooting ranges (Peterson et al. 1993, Mellor and McCartney 1994, Rooney et al. 1999, Hui 2002), but as proposed in these plans, hunters will not be concentrated or reach the numbers expected at a shooting range. Hunter and angler presence will be dispersed and they are unlikely to be concentrated in the areas where these species could be found. Also, the migration of lead from soil to roots and other parts of the plant is expected to be minimal, so the use of lead for hunting and fishing activities is not likely to adversely impact these species.

In summary, minimal overlap is anticipated between these listed plant species and hunting or fishing activities that could lead to lead exposure. Any impacts from the use of lead ammunition or tackle would be considered discountable because they are extremely unlikely to occur. Therefore, the proposed activities are not likely to adversely affect sensitive joint vetch, small whorled pogonia, swamp pink, or seabeach amaranth.

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Reviewing Ecological Services Office Evaluation

Species/Critical Habitat	Determination	Response Requested
Indiana bat	NLAA	Concurrence
Northern long-eared bat	NLAA	Concurrence
Tricolored bat	NLJ	Conference
Piping plover	NLAA	Concurrence
Red knot	NLAA	Concurrence
Roseate tern	NLAA	Concurrence
Eastern black rail	NLAA	Concurrence
Red-cockaded woodpecker	NLAA	Concurrence
Hawksbill sea turtle, Kemp's Ridley sea turtle, leatherback sea turtle, green sea turtle	NE	--
Loggerhead sea turtle	NLAA	Concurrence
American alligator	NLAA	Concurrence
Green floater mussel	NLJ	Conference
Yellow lance mussel	NLAA	Concurrence
Northeastern beach tiger beetle	NLAA	Concurrence
Monarch butterfly	NLJ	Conference
Sensitive joint-vetch	NLAA	Concurrence
Small whorled pogonia	NLAA	Concurrence
Swamp pink	NLAA	Concurrence
Seabeach amaranth	NLAA	Concurrence

NLAA = not likely to adversely affect, LAA = likely to adversely affect, NLJ = not likely to jeopardize, NE = no effect

Signature Approval (print to pdf and add signature boxes when reviews are complete):

MARCIE KAPSCH

Digitally signed by MARCIE
KAPSCH
Date: 2026.08.20 17:06:23 -04'00'

6/5/2026

Signature (Originating Station)

Date

Marcie Kapsch

- A. Concurrence Nonconcurrence
- B. Formal consultation required
- C. Conference required
- D. Informal conference required
- E. Remarks (attach additional pages as needed):

Signature

Date

Title

Office