

# Environmental Assessment for the Hunting Plan at Wertheim National Wildlife Refuge

This Environmental Assessment (EA) is being prepared to evaluate the effects associated with this proposed action and complies with the National Environmental Policy Act (NEPA) in accordance with Council on Environmental Quality regulations (40 CFR 1500-1509) and Department of the Interior (43 CFR 46; 516 DM 8) and U.S. Fish and Wildlife Service (550 FW 3) regulations and policies. NEPA requires examination of the effects of proposed actions on the natural and human environment.

## **Proposed Action**

The U.S. Fish and Wildlife Service (Service) is proposing to expand hunting opportunities for white-tailed deer (*Odocoileus virginianus*) and turkey (*Meleagris gallopavo*) on Wertheim National Wildlife Refuge (NWR, refuge) in accordance with the refuge's Comprehensive Conservation Plan (CCP), which was finalized in 2006. The expanded Hunting Plan will include opportunities for firearm and archery hunting of white-tailed deer, and for a youth spring turkey hunt.

## **Background**

National wildlife refuges are guided by the mission and goals of the National Wildlife Refuge System (Refuge System), the purposes of an individual refuge, Service policy, and laws and international treaties. Relevant guidance includes the National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife 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.

Wertheim NWR was established in 1947 pursuant to the authority of the Migratory Bird Conservation Act of 1929 "for use as an inviolate sanctuary, or for other management purposes for migratory birds" 16 U.S.C. §715d. The refuge's purposes also note that it is "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..." 16 U.S.C. §460k-1 (Refuge Recreation Act (16 U.S.C. § 460k - 460k-4), as amended).

The mission of the Refuge System, as outlined by the National Wildlife Refuge System Administration Act (NWRSA), as 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 NWRSAA 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 Service 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.

### **Purpose and Need for the Proposed Action**

Hunting is a healthy, traditional recreational use of renewable natural resources deeply rooted in America's heritage, and it can be an important wildlife management tool. The NWRSAA of 1966, the Refuge System Improvement Act of 1997, other laws, and the Service's policies permit hunting on a national wildlife refuge when it is compatible with the purposes for which the refuge was established and acquired.

Wertheim NWR's CCP (2006) identified the importance of expanding hunting opportunities in New York and using hunting as a population management tool. However, the existing refuge hunt program has not been expanded since the CCP was published.

To address the needs stated above, the purpose of the proposed action will bring the refuge into compliance with management objectives detailed in the CCP. Furthermore, Department of the

Interior Secretarial Order 3356 directs the Service to enhance and expand public access to lands and waters on national wildlife refuges for hunting, fishing, recreational shooting, and other forms of outdoor recreation. The proposed action will also promote one of the priority public uses of the Refuge System, and will promote stewardship of our natural resources and increase public appreciation and support for the refuge by providing opportunities for visitors to hunt.

This EA serves as the NEPA document, which analyzes the impacts on environmental, cultural, and historical resources of expanding hunting opportunities on the refuge.

**Alternatives Considered**

**No Action Alternative (Current Management)**

The No Action Alternative would continue to provide white-tailed deer hunting for 11 days of the States’ hunting season. No other hunts would be available for the public. Under this alternative, the refuge would not fully meet its objectives for white-tailed deer management.

**Proposed Action Alternative (Expanded White-tailed Deer Hunting with Addition of Turkey Hunting)**

The Proposed Action Alternative is an expansion of the No Action Alternative, originally developed in collaboration between refuge staff and the New York State Department of Environmental Conservation (NYSDEC) during the refuge’s 2006 CCP process. This alternative builds on an existing hunt program, including the addition of turkey hunting. There are no unresolved conflicts about the proposed action with respect to alternative uses of available resources. Table 1B describes the differences between the two evaluated alternatives in acreage and hunting days.

**Table 1B. Primary differences between refuge hunt alternatives**

	<b>No Action</b>	<b>Proposed Action</b>
Deer Hunting Area	1,390 acres	1,390 acres
Turkey Hunting Area	0 acres	773 acres
Number of deer hunting days*	11 days	90 days
Number of turkey hunting days*	0 days	1 to 14 days

\* Subject to change based on annual NYSDEC season setting

The refuge has prepared a Hunting Plan, which is presented in this document as the Proposed Action Alternative. Under this alternative, the refuge would expand its white-tailed deer season from 11 to 90 total days. The refuge would also create opportunities for turkey hunting on the refuge, including the possibility for a Youth Spring Turkey hunt.

## **Mitigation Measures to Avoid Conflicts**

The refuge-specific regulations detailed in the Wertheim NWR Hunting Plan (and in 50 CFR § 32.51) are measures under the Proposed Action Alternative that will reduce or avoid impacts. Refuge and State law enforcement officers will enforce hunting regulations. Providing hunting information through various forums will ensure the public is aware of applicable laws and policies. To minimize conflicts and maximize safety, refuge-specific hunt regulations, maps, and brochures will be available to hunters and to all public users on the refuge website and at the refuge headquarters and visitor center.

The refuge nature trails and visitor center will remain open during the archery season. Archery hunting will occur concurrently with other refuge uses such as hiking, photography, etc. However, the refuge will be closed to other public uses during the January shotgun season for the safety of the non-hunting public and to maintain a quality experience for all visitors. Although restricted at Wertheim NWR during shotgun hunt days, the general public also has the opportunity to visit the nature trails provided at Morton and Target Rock NWRs.

To avoid potential impacts to northern long-eared bats on the refuge, we would likely start deer hunting on November 1, when they have migrated to their winter hibernacula.

## **Affected Environment**

Wertheim NWR consists of 2,688 acres on the south shore of Long Island in the town of Brookhaven. Approximately 1,390 acres are available to white-tailed deer hunting on the refuge. These areas include forests, shrublands, old fields/grasslands (herbaceous), marsh, and open water. Approximately 773 acres of upland habitat are available for turkey hunting on the refuge. These habitats include forested uplands, shrublands, and old fields/grasslands (herbaceous).

The refuge is divided into five hunt units whose boundaries are defined by the network of refuge roads and watercourses. Two hunt units (3A and 5) that were closed to shotgun hunting due to their close proximity to dwellings and public highways may be opened for concurrent archery hunting. Unit 3, which contains the Black Tupelo Trail and Indian Landing Loop, as well as Unit 4, which includes the White Oak Nature Trail, may be open simultaneously or closed periodically during the hunting season to allow access for other refuge users. Specific closures and regulations will be listed in the annual refuge hunting regulations.

## **Environmental Consequences of the Action**

This section analyzes the environmental consequences of the action on each affected resource, including direct and indirect impacts. This EA focuses primarily on analyses of the environmental consequences on a resource when the impacts on that resource could be more than negligible and therefore considered an “affected resource.” Resources that will not be more than negligibly impacted by the action have been dismissed from further analyses. The refuge’s Compatibility Determination for public hunting also has a summary of potential impacts associated with hunting, and is available in Appendix A of the Hunting Plan.

Impact Types

**Direct impacts** are those which are caused by the action and occur at the same time and place.

**Indirect impacts** are those which are caused by the action and are later in time or farther removed in distance but are still reasonably foreseeable. Indirect impacts include ecological (such as the impacts on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative. Indirect impacts may also include those resulting from actions with both beneficial and detrimental impacts; even if on balance, the agency believes that the impact will be beneficial.

**Table 2B. Anticipated Impacts**

<b>AFFECTED RESOURCE</b>	<b>ANTICIPATED DIRECT AND INDIRECT IMPACTS</b>
<p><b>White-tailed Deer</b> White-tailed deer populations began increasing during the mid-1980s due to suburbanization of the area surrounding the refuge. Based on deer survey abundance estimates from 2000 to 2012 and 2015, the deer population has continued increasing in recent years. Results from the 2015 survey estimated there were 150 deer on the refuge, or a population density of 60 deer/mi<sup>2</sup>.</p> <p>High-density herds (i.e., greater than 30 deer/mi<sup>2</sup>) have been associated with damage to habitats (e.g., lack of forest regeneration and loss of woody understories), economic impacts (e.g., timber resources, ornamental plantings, agricultural damage, and vehicle collisions), and tick-borne disease transmission (Woolf and Harder 1979, Cypher and Cypher 1988). Since the deer hunt was initiated in 2005, a total of 485 deer have been harvested on the refuge and</p>	<p><b>No Action</b> Failure to reduce the deer herd to levels within the carrying capacity of Wertheim NWR may have greater impacts on the deer herd and their habitat. If the deer population goes unmanaged, forage becomes less available. If this occurs, more deer are expected to exhibit a poorer physical condition, with a greater proportion of deer anticipated to die from starvation. In such a situation (i.e., high density and poor physical condition), deer are more susceptible to diseases like epizootic hemorrhagic disease and various parasites.</p> <p><b>Proposed Action</b> Achieving parity between deer densities and the habitat's carrying capacity is expected to improve the overall health of the deer population; deer are expected to attain greater body weights, show fewer signs of disease, and succumb less often to starvation. With a staggering of hunt days and mix of firearms and bow hunting, implementation of a hunting program is not expected to encourage deer to leave the refuge in greater number; hunting tends not to cause deer to leave their normal home ranges, but instead shifts the deer into areas with more adequate cover (Kufeld et al. 1988).</p> <p>Direct impacts to the deer population would include the annual harvest of an estimated 60 to 100 deer over the next several years, after which, the deer population will be maintained at a lower density through an annual harvest, if necessary, of approximately 40 deer.</p>

<p>an average of 35 deer per hunting season. Wertheim NWR is located in NYSDEC Wildlife Management Unit 1C. Hunters in WMU 1C harvested a total of 3,407 deer during the 2018-2019 season. In 2018, an estimated 227,787 were harvested in the State of New York. (NYSDEC 2018).</p>	<p>Attainment of this harvest rate will result in reducing the deer population from an estimated 100 deer/mi<sup>2</sup> to a level more consistent with the carrying capacity of the habitat (i.e., less than 25 deer/mi<sup>2</sup>) (Woolf and Harder 1979, Cypher and Cypher 1988). Consequently, the deer population will exhibit a more balanced sex ratio, will be more resistant to disease, and individual animals will maintain a high level of physical condition.</p>
<p><b>Turkey</b> Turkeys are a resident wildlife species, whose population is managed throughout the State by NYSDEC. A turkey population low was observed in 2011. Based on spring harvest data and other surveys, turkey populations seemed to have increased slightly and to have stabilized over the past few years. In 2018, an estimated 54 turkeys were harvested in the spring and 120 turkeys were harvested in the fall in Suffolk County, New York (NYSDEC 2018).</p>	<p><b>No Action</b> No negative impacts to habitat or other wildlife are known to occur from current turkey densities. Remaining closed to turkey hunting is not expected to have biological consequences.</p> <p><b>Proposed Action</b> The addition of turkey hunting at Wertheim NWR will provide the opportunity for the refuge to collaborate with NYSDEC on their annual spring Youth Turkey Hunt. While the addition of turkey hunting will result in an estimated take of five turkeys each year, this is anticipated have a minimal impact on their overall population.</p>
<p><b>Other Wildlife and Aquatic Species</b> Wertheim NWR supports a large diversity of wildlife species, including both game and nongame species. Some taxa that are found on the refuge include approximately 300 bird species, 30 mammal species, and 30 amphibian and reptile species.</p>	<p><b>No Action</b> If left unmanaged, deer herds would increase at the expense of other wildlife species, a condition contrary to the refuge’s mandate to manage for migratory birds, of which forest-dependent birds are a major component. By allowing the herd to continue to overpopulate, a more pronounced browse line would develop. This would further reduce food and cover for nearly all species that depend on the layer of vegetation within roughly 6 feet of the ground. Ground and shrub nesting birds, and small mammals which utilize surface vegetation for food and cover would be adversely affected.</p> <p><b>Proposed Action</b> Increased vegetative density and diversity resulting from decreased white-tailed deer populations will provide the structure necessary to benefit ground-nesting birds, as well as reptiles, amphibians, and small mammals.</p>

	<p>Disturbance to non-migratory wildlife would also increase on the refuge due to the presence of sportsmen. However, this would be mitigated by permitting hunting between November and January, a time of year when wildlife occurrence and activity is lowest. An additional mitigating factor is that at least 586 acres or 23 percent of the refuge’s land area will be closed to hunting with implementation of a 500-foot, “no-hunt” zone established around the refuge’s perimeter and additional safety zones.</p>
<p><b>Threatened and Endangered Species and Other Special Status Species</b>  Roseate tern (<i>Sterna dougallii</i>) is listed as endangered under the Endangered Species Act of 1973. Red knot (<i>Calidris canutus</i>) and northern long-eared bat (<i>Myotis septentrionalis</i>) are listed as threatened. Roseate tern and red knot may use the refuge in the spring/summer, but they are not consistently present and not observed in large numbers. Northern long-eared bat have been documented on the refuge since 2012 through acoustic bat surveys and mistnetting.</p> <p>New York State designated threatened and endangered species, which occur at Wertheim NWR include the bald eagle, northern harrier, short-eared owl, common tern, least bittern, least tern, black rail, peregrine falcon, pied-bill grebe.</p> <p>While the bald eagle is no longer a federally listed species, the refuge uses National Bald Eagle Management Guidelines for bald eagle management to implement time-of-year restrictions for a nesting pair of eagles at Wertheim NWR. The guidelines</p>	<p><b>No Action</b>  Current refuge hunting regulations have few, if any, direct negative implications largely to the seasonality and short duration of current approved hunting opportunities. However, the biological impacts of retaining a high density deer herd include the continual negative impacts from deer on the refuge's vegetation (i.e., lack of forest regeneration and loss of woody understories), and the associated reduction in habitat quality of the refuge for a variety of wildlife species, including species of special management concern.</p> <p><b>Proposed Action</b>  The State deer hunting season usually begins around October 1. Northern long-eared bat may still be present on the refuge as they migrate to winter hibernaculum. There is the potential for hunter tree stands to disturb bat roost sites. The general time frame for bat hibernation is November 1 to March 31. Therefore, the refuge will permit deer hunting from November 1 to January 31 to reduce impacts to northern long-eared bat. Red knot and roseate tern will not be effected since these species primarily use the refuge in the spring and summer, and are typically found in beach and saltmarsh habitats. An Endangered Species Act Section 7 evaluation is being conducted for red knot, roseate tern and northern long-eared bat (see Appendix in Hunting Plan).</p> <p>Disturbance to species of special management concern may come from the presence of hunters on the refuge. However, this will be mitigated by the timeframe for hunting between November and January, when wildlife occurrence and activity is lowest.</p>

<p>do not permit any activity within 330 feet of an active nest. Besides hunting, other recreational activities are not permitted near the active nest based on the recommended guidelines (USFWS 2007).</p>	
<p><b>Vegetation (including vegetation of special management concern)</b>  Vegetation varies throughout the refuge. The acres of terrestrial and aquatic habitats at Wertheim NWR are closely equal. (USFWS 2006). The terrestrial habitats include pine barrens forest, forested wetlands, shrublands, grasslands and forest openings. Aquatic habitats consists of the Carmans River and its tidal tributaries, salt, brackish and freshwater marshes, swamps, streams, freshwater impoundments and ponds.</p> <p>The vegetation types of Long Island have been categorized into a variety of classification schemes. Vegetation at Wertheim NWR is classified by Bailey (1995) as Eastern Broadleaf Forest (Oceanic) Province. Barbour and Billings (1988) place Long Island in their ecological coastal grouping which includes the northern most portion of the southeastern coastal plain. The authors specifically refer to the vegetation of Long Island as the northern Pine Barrens. On a more local scale, Olsvig et al. (1979) and Villani (1997) have provided a classification scheme of Long Island's terrestrial</p>	<p><b>No Action</b>  The current overpopulation of deer is degrading forested habitats as a result of overbrowsing. The biological impacts of retaining a high-density deer herd include the continual negative impacts from deer on the refuge's vegetation (i.e., lack of forest regeneration and loss of woody understories), and the associated reduction in habitat quality of the refuge for a variety of wildlife species. Although affected grassland vegetation may regenerate more, species composition may be permanently altered (Porter 1991).</p> <p><b>Proposed Action</b>  The reduction of deer densities would allow forest vegetation to recover from the effects of overbrowsing. A decline in deer browsing will allow development of an herbaceous layer and woody understory representative of a diverse and balanced ecosystem.</p>

<p>vegetation types focusing on pine barren types.</p>	
<p><b>Visitor Use and Experience</b> Public visitation of Wertheim NWR ranges between 65,000 and 75,000 visits per year. Activities at the refuge include wildlife observation and photography, environmental education and interpretation, hiking, deer hunting, fishing, and boating.</p> <p>There are three main access points to the refuge. The first is from Montauk Highway, south 0.5 miles on Smith Road to gain access to the headquarters, visitor center, and White Oak and Black Tupelo Nature Trails. A 30-vehicle parking area is available to refuge visitors. The second access point is the fishing access site located at the northern end of the refuge via Montauk Highway. Parking is provided and a trail leads to the Carmans River. The public uses the trail to gain access to the river to fish or to launch a canoe/kayak. From a canoe/kayak, the public can gain access to the 1.0-mile Indian Landing Nature Trail. The third access is at the eastern end of Beaver Dam Road and Squassux Landing, owned respectively by the town of Brookhaven and Brookhaven Village Association. Brookhaven residents launch watercraft or dock their watercraft at the Squassux Landing facility to use on the river or Great South Bay. The east end of Beaver Dam Road is used also by the public for recreational fishing, crabbing,</p>	<p><b>No Action</b> In the absence of increased deer management strategies, negative interactions between humans and deer will continue as a greater number of deer roam freely in residential neighborhoods, foraging for food no longer available on the refuge. The increased presence of deer in neighborhoods will likely increase damage to private landscaping and gardens. The increased movement of deer off-refuge will also potentially increase the incidence of deer-vehicle collisions, as well as the possibility of vehicle occupants sustaining bodily injuries.</p> <p>This alternative will continue to provide such existing public recreational opportunities as wildlife observation, environmental education, interpretation, and photography. This alternative will continue to provide hunting opportunities as well. However, it will not provide the additional expanded opportunities provided by the Proposed Action.</p> <p><b>Proposed Action</b> This alternative would permit additional public recreational opportunities, consistent with the primary public uses identified in the Refuge Improvement Act of 1997. Hunting is named specifically as a priority public use of refuges, along with fishing, photography, wildlife observation, environmental education, and environmental interpretation. There is an abundant population of white-tailed deer in Suffolk County. NYSDEC manages several public hunting areas on Long Island. Expanding deer hunting at the refuge would increase opportunities for hunters.</p> <p>Archery hunting will occur concurrently with other refuge uses such as hiking, photography, etc. However, the refuge will be closed to other public uses during the January shotgun season. Although restricted at Wertheim NWR during shotgun hunt days, the general public also has the opportunity to visit the nature trails provided at Morton and Target Rock NWRs.</p> <p>The sound of firearms discharges are expected to be only minimally noticeable to surrounding homeowners given</p>

<p>and to launch canoes/kayaks in the Carmans River.</p>	<p>the distance between homes and hunt areas (i.e., more than 500 feet) and the noise attenuation provided by forest vegetation. The sound effects will also be minimized as shotgun hunting will occur only during daylight hours when most residents are at work and away from home.</p> <p>Over a several year period, a reduction in the refuge's deer density is anticipated to have localized effects within the adjacent community. The presence of fewer deer is expected to limit their overall occurrence on residential properties, resulting in less damage to landscaping and fewer deer will be available to transport Lyme disease-bearing ticks. Although deer will undoubtedly continue to move off-refuge, especially during the breeding season, a smaller deer population could likewise reduce the number of vehicle collisions.</p>
<p><b>Cultural Resources</b> Wertheim NWR possesses several small cemeteries which are protected from disturbance. No structures at Wertheim NWR have been proposed, identified or listed on the National Register of Historic Structures. There are no known Indian Trust Resources on Wertheim NWR or the nearby area.</p>	<p><b>Environmental Consequences Common to All Alternatives</b> No impacts expected.</p>
<p><b>Refuge Management and Operations</b> Operation of a hunting program requires the time and efforts of Service personnel to establish regulations, determine boundaries and limitations, communicate with hunters and anglers, maintain a law enforcement presence, and maintain infrastructure necessary to provide access to such opportunities.</p> <p>Infrastructure associated with the hunt program is minimal. Parking lots and the associated</p>	<p><b>No Action</b> The refuge currently dedicates 66.75 staff days annually to prepare hunting areas, manage the lottery hunt, process hunt applications and permits, staff the deer check station, update annual regulations and communicate those regulations via kiosks, the visitor center, and the refuge website.</p> <p><b>Proposed Action</b> Under the proposed action, moving away from staffing a deer check station would greatly reduce the workload required to manage the annual hunt to approximately 17.25 staff days (more than 70 percent reduction compared to the No Action Alternative). This would create a moderate, long-term benefit for the refuge by reducing personnel time to devote to other refuge operations and management. While new areas of the refuge would be open to hunting,</p>

<p>Service roads to hunt areas through the refuge are the only hunting-specific infrastructure on the refuge. All other infrastructure, including trails, bathrooms, and buildings are used by all visitors to the refuge.</p>	<p>there is no additional infrastructure associated with them. The increase in hunters using the refuge due to the additional hunting opportunities will be small and have negligible impacts.</p>
<p><b>Socioeconomics</b> Wertheim NWR, the second largest of the Long Island Complex’s refuge units, is located in the town of Brookhaven in western Suffolk County, on the easternmost portion of the Great South Bay. The population of Suffolk county was 1,493,147 as of 2010 (“Suffolk County, New York QuickFacts,” 2019).</p>	<p><b>No Action</b> The current program has negligible impacts to the local economy. Most hunters travel to the refuge from within 50 miles, with many coming from neighboring communities.</p> <p><b>Proposed Action</b> The proposed action is expected to have minor impacts to the local economy. Refuge visitation may increase due to hunting opportunities, but only minor beneficial economic impacts are expected to result from the Proposed Action.</p>
<p><b>Environmental Justice</b> Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, requires all Federal agencies to incorporate environmental justice into their missions by identifying and addressing disproportionately high or adverse human health or environmental effects of their programs and policies on minorities and low-income populations and communities.</p>	<p>The Service has not identified any potential high and adverse environmental or human health impacts from this proposed action. The Service has identified no minority or low-income communities within the impact area. Minority or low income communities will not be disproportionately affected by any impacts from this proposed action or any of the alternatives.</p>

**Cumulative Impact Analysis**

Cumulative impacts are defined as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions” (40 CFR 1508.7).

For more information on the national cumulative impacts of the Service’s hunting and fishing program on the National Wildlife Refuge System, see “*U.S. Fish and Wildlife Service, Cumulative Impacts Report 2020-2021 National Wildlife Refuge and National Fish Hatchery Proposed Hunting and Sport Fishing Openings (2020)*”.

**Table 3B. Cumulative Impacts**

Other Past, Present, and Reasonably Foreseeable Activity Impacting Affected Environment	Descriptions of Anticipated Cumulative Impacts
<p><b>Hunting</b> There is a long history of hunting on Long Island. Hunting occurs on public and private lands within NYSDEC Wildlife Management Unit 1C, in which Wertheim NWR is located. In a separate action, we are also proposing to open white-tailed deer hunting on nearby Seatuck NWR to archery hunting.</p>	<p>Wertheim NWR coordinates with NYSDEC. The refuge hunting program will be conducted within the framework of State and Federal regulations. NYSDEC sets hunting frameworks based on species populations and monitored harvests. The proposed hunting program rules will be the same as, or more restrictive than, hunting regulations in the State. By maintaining hunting regulations that are the same as or more restrictive than the State, we can ensure that we are maintaining seasons that are supportive of management on a more regional basis. Such an approach also provides consistency with large-scale population status and objectives.</p> <p>Wertheim NWR is located in NYSDEC Wildlife Management Unit (WMU) 1C. Hunters in WMU 1C harvested a total of 3,407 deer during the 2018-2019 season. An estimated 227,787 deer were harvested in the State of New York in 2018 (NYSDEC 2018). Therefore, the estimated take of 60 to 100 deer on the refuge will have very minor cumulative impacts to deer populations in the local and regional area.</p> <p>In 2018, an estimated 54 turkeys were harvested in the spring and 120 turkeys were harvested in the fall in Suffolk County, New York (NYSDEC 2018). An estimated 2,270 turkeys were harvested in New York in 2018 (NYSDEC 2018). Therefore, the estimated take of 5 turkeys on the refuge will have very minor cumulative impacts to turkey populations in the local and regional area.</p>

<p><b>Other wildlife-dependent recreation (i.e. road and trail development and use)</b></p>	<p>The refuge has managed a mix of wildlife-dependent recreation for decades and does not anticipate any major conflicts between uses due to the proposed changes.</p> <p>Refuge nature trails will be open to other wildlife-dependent recreational uses concurrently during the archery season. However, the refuge will be closed to the non-hunting public during shotgun hunt days for public safety and in order to maintain a quality experience for all visitors.</p>
<p><b>Use of Lead Ammunition/Tackle</b> Lead ammunition is permitted in New York for hunting all species, except waterfowl. The State does not list regulations for lead shot and/or tackle in their 2019-2020 regulations other than for waterfowl. However, they include a feature in the 2019-2020 hunt guide titled “Go non-lead: better for you - better for wildlife” recommending hunters switch to non-lead ammunition for big game. Lead is a known metabolic poison that can negatively influence biological processes in both wildlife and humans.</p>	<p>Deer and turkey hunt participants will be encouraged to use non-toxic ammunition voluntarily. Scavenging of unrecovered deer and deer gut piles resulting from the permit deer hunt could cause detrimental impacts from lead exposure. These proposed actions, along with additional outreach to educate hunters, anglers, and the public to the adverse impacts of lead, will assist in reducing potential future lead contamination from occurring on the refuge.</p>
<p><b>Climate Change</b> Ecological stressors are expected to affect a variety of natural processes and associated resources into the future. The most substantial concern at the refuge is sea level rise and the impact on marsh elevation. This is already causing marsh migration, marsh inundation, and increased mortality in forests adjacent to salt marshes. These habitat changes may dramatically reduce the amount and quality of both forest for resident wildlife and salt marsh for migratory birds that are hunted. As a result, wildlife would be forced into reduced amounts of available habitat.</p>	<p>While the effects of climate change on ecological systems is not fully understood, deer and turkey abundances are predicted to increase because of greater survival and reproductive rates associated with warmer winters. However, there is also evidence that some infectious viral diseases and parasite (e.g., ticks) infestations could also increase in frequency and severity. Consequently, the full effects of climate change on deer and turkeys is not fully understood (Hushaw et al. 2016). Under the proposed alternative, the refuge would use an adaptive management approach for its hunt program, reviewing the hunt program annually and revising annually (if necessary), the Service’s hunt program can be adjusted to ensure that it does not contribute further to the cumulative impacts of climate change on resident wildlife (both hunted and non-hunted species) and migratory birds.</p>

## **Summary of Analysis**

This EA provides evidence and analysis for determining whether to prepare an environmental impact statement (EIS) or a Finding of No Significant Impact (FONSI). The term “significantly,” as used in NEPA, requires consideration of both the context of the action and the intensity of effects.

### **No Action Alternative**

There would be no additional cost to the refuge for maintaining the current hunt program in its current form. There would be no change to current public use and wildlife management programs on the refuge under this alternative. The refuge would not provide new hunting and access opportunities. This alternative has the least direct impacts on physical and biological resources; however, long-term impacts on habitat quality would be adverse if the deer population continues to increase. In addition, it would not fulfill the Service’s mandate under the NWRSA and Secretarial Order 3356.

### **Proposed Action Alternative**

This alternative is the Service’s proposed action because it expands public hunting opportunities and minimally affects physical and biological resources, while meeting the Service’s mandates. The addition of turkey hunting and the expansion of deer hunting is predicted to have no detrimental effects to local and regional wildlife populations. To access the impacts of this program, populations will continue to be monitored in collaboration with State biologists. This monitoring will allow the refuge to adaptively manage through the hunting program, altering the refuge’s permit numbers and season structure as needed. This alternative is preferred because it increases high quality public hunting opportunities, with minimal impacts on physical and biological resources, and meets Service mandates under the NWRSA. The Service believes that expanding the hunting program on Wertheim NWR is not expected to have any significant impact to wildlife, other uses, or refuge administration.

## **List of Sources, Agencies and Persons Consulted**

### **State Coordination**

National wildlife refuges, including Wertheim NWR, conduct hunting programs within the framework of State, Federal, and refuge regulations. The Service’s North Atlantic-Appalachian Regional Office shared information with the State on the proposed changes for Wertheim NWR. This EA associated with the draft Hunting Plan has not yet been reviewed by the NYSDEC.

Refuge staff invited NYSDEC to our annual deer hunt planning meeting on June 17, 2019. One NYSDEC conservation officer attended the meeting. The refuge manager and wildlife biologist also met with four NYSDEC biologists on August 27, 2019, to discuss current and potential deer management including the development of this Hunting Plan. During the August meeting and site visits at Seatuck NWR and Wertheim NWR, we discussed ways to align refuge hunting regulations and deer population management goals, where possible, with State management goals. NYSDEC also offered to check in deer harvested from the refuge at their Ridge Hunter Check Station.

**Public Outreach**

Public notifications of the Hunting Plan, Compatibility Determination, and Environmental Assessment will be made available to the public through local venues, the refuge website, and social media notices, as well as notification in the *Federal Register* (as part of other expansions and openings on national wildlife refuges). There will be a 30-day public comment period.

**List of Preparers**

- Michelle Potter – Project Leader
- Monica Williams – Wildlife Biologist
- Ann Marie Chapman – Visitor Services Manager
- Cindy Beemiller – Wildlife Refuge Specialist
- Tom Bonetti – Regional Office, Hunting and Fishing Coordinator
- Caleb Robitaille – Regional Office Visitor Services Assistant
- Laura Howard – Regional Office Visitor Services Assistant

**Determination**

*This section will be filled out upon completion of any public comment period and at the time of finalization of the Environmental Assessment.*

- The Service’s action will not result in a significant impact on the quality of the human environment. See the attached “**Finding of No Significant Impact**”.
- The Service’s action **may significantly affect** the quality of the human environment and the Service will prepare an Environmental Impact Statement.

Preparer Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Name/Title/Organization: \_\_\_\_\_

\_\_\_\_\_

Reviewer Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Name/Title: \_\_\_\_\_

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## **Other Applicable Statutes, Executive Orders and Regulations**

### ***Cultural Resources***

- American Indian Religious Freedom Act, as amended, 42 U.S.C. 1996-1996a; 43 CFR Part 7. Antiquities Act of 1906, 16 U.S.C. 431-433; 43 CFR Part 3.
- Archaeological Resources Protection Act of 1979, 16 U.S.C. 470aa-470mm; 18 CFR Part 1312; 32 CFR Part 229; 36 CFR Part 296; 43 CFR Part 7.
- National Historic Preservation Act of 1966, as amended, 16 U.S.C. 470-470x-6; 36 CFR Parts 60, 63, 78, 79, 800, 801, and 810.
- Paleontological Resources Protection Act, 16 U.S.C. 470aaa-470aaa-11.
- Native American Graves Protection and Repatriation Act, 25 U.S.C. 3001-3013; 43 CFR Part 10.
- Executive Order 11593 – Protection and Enhancement of the Cultural Environment, 36 Fed. Reg. 8921 (1971).
- Executive Order 13007 – Indian Sacred Sites, 61 Fed. Reg. 26771 (1996).

### ***Fish and Wildlife***

- Bald and Golden Eagle Protection Act, as amended, 16 U.S.C. 668-668c, 50 CFR 22.
- Endangered Species Act of 1973, as amended, 16 U.S.C. 1531-1544; 36 CFR Part 13; 50 CFR Parts 10, 17, 23, 81, 217, 222, 225, 402, and 450.
- Fish and Wildlife Act of 1956, 16 U.S.C. 742 a-m.
- Lacey Act, as amended, 16 U.S.C. 3371 et seq.; 15 CFR Parts 10, 11, 12, 14, 300, and 904.
- Bird Treaty Act, as amended, 16 U.S.C. 703-712; 50 CFR Parts 10, 12, 20, and 21.
- Executive Order 13186 – Responsibilities of Federal Agencies to Protect Migratory Birds, 66 Fed. Reg. 3853 (2001).

### ***Natural Resources***

- Clean Air Act, as amended, 42 U.S.C. 7401-7671q; 40 CFR Parts 23, 50, 51, 52, 58, 60, 61, 82, 93; 48 CFR Part 23.
- Wilderness Act, 16 U.S.C. 1131 et seq.
- Wild and Scenic Rivers Act, 16 U.S.C. 1271 et seq.
- Executive Order 13112 – Invasive Species, 64 Fed. Reg. 6183 (1999).

### ***Water Resources***

- Coastal Zone Management Act of 1972, 16 U.S.C. 1451 et seq.; 15 CFR Parts 923, 930, 933.
- Federal Water Pollution Control Act of 1972 (commonly referred to as Clean Water Act), 33 U.S.C. 1251 et seq.; 33 CFR Parts 320-330; 40 CFR Parts 110, 112, 116, 117, 230-232, 323.