

## **Compatibility Determination**

**USE:** Hunting

**REFUGE NAME:** Eastern Massachusetts National Wildlife Refuge Complex (NWRC, Complex). The Complex comprised of eight refuges in the State of Massachusetts. The refuges covered in this plan include:

- Assabet River National Wildlife Refuge (NWR)
- Great Meadows National Wildlife Refuge
- Oxbow National Wildlife Refuge

**DATE ESTABLISHED:**

- Assabet NWR, September 28, 2000
- Great Meadows NWR, May 3, 1944
- Oxbow NWR, May 24, 1974

**ESTABLISHING and ACQUISITION AUTHORITY(IES):**

Assabet River National NWR was established under an Act Authorizing the Transfer of Certain Real Property for Wildlife, or Other Purposes. (16 U.S.C. 667b).

Great Meadows NWR was established under the authority of the Migratory Bird Conservation Act (16 U.S.C. § 715d) and Refuge Recreation Act (16 U.S.C. § 460k-1).

Oxbow NWR was established under an Act Authorizing the Transfer of Certain Real Property for Wildlife, or Other Purposes. (16 U.S.C. 667b).

**REFUGE PURPOSE(S):**

Assabet River NWR's purpose is its "...particular value in carrying out the national migratory bird management program." (16 U.S.C. 667b-d, as amended).

Great Meadows NWR's purpose is: "...for use as an inviolate sanctuary, or for any other management purpose, for migratory birds." (16 U.S.C. § 715d), "... suitable for – incidental fish and wildlife-oriented recreational development," (16 U.S.C. § 460k-1), "the protection of natural resources," (16 U.S.C. § 460k-1), "and the conservation of threatened or endangered species..." (16 U.S.C. § 460k-1).

Oxbow NWR's purpose is its "...particular value in carrying out the national migratory bird management program." (16 U.S.C. 667b-d, as amended).

**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" (Refuge System Improvement Act of 1997, Public Law 105-57).

**DESCRIPTION OF USE:**

**(a) What is the use? Is the use a priority public use?**

The use is public hunting of big game (deer, turkey, bear), coyote, fox, upland game (ruffed grouse, rabbit, and squirrel) and migratory game bird (waterfowl, woodcock, snipe) at Assabet River, Great Meadows, and/or Oxbow NWRs.

Under the proposed plan, Assabet River NWR would have 2,273 acres open to hunting (including 123 opened for the first time). Species open at Assabet would include black bear, white-tailed deer, turkey, coyote, fox, cottontail rabbit, squirrel, grouse, woodcock, and waterfowl.

Under the proposed plan, Great Meadows NWR would have 3,401 acres open to hunting, including 778 acres opened for the first time. Species open at Great Meadows would include black bear, white-tailed deer, turkey, coyote, and waterfowl.

Under the proposed plan, Oxbow NWR would have 1,671 acres open to hunting, including 128 acres opened for the first time. Species open at Oxbow would include black bear, white-tailed deer, turkey, coyote, fox, cottontail rabbit, squirrel, grouse, waterfowl, woodcock, and snipe.

Hunting 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.

**(b) Where would the use be conducted?**

**Assabet River NWR**

The Assabet River NWR totals 2,357 acres (Figure 1 in Hunt Plan). A total of 2,273 acres will be maintained or opened to hunting and those areas include the North Unit A, North Unit B (for Archery Only), Unit C (archery only except waterfowl) and South Unit (archery only). No rifles or handgun are allowed refuge wide. The Safety Zone (80 acres) and the Closed area (4 acres) will continue to be closed for hunting. See Table A-2: Assabet River NWR Hunting Units for a list of specific hunt units, species, and acres. The parcels along the Assabet River in Unit C (123 acres) that were acquired in 2008 will be opened to hunting for the first time, providing new opportunities for waterfowl, deer, turkey, bear, coyote, and fox hunting. New opportunities for

bear, coyote and fox will be made available in North Units A and B as well as South Unit. In addition, North Unit A will be opened for special waterfowl hunts for targeted user groups including, youth, women, veterans, and underserved groups on a limited basis. Portions of the refuge will be closed during the hunt to maintain a safe, quality hunt for targeted user groups. There are areas that are designated for “archery only” due to their proximity to densely populated residential areas, schools, or other areas of safety concern. These archery area include North Unit B, Unit C (except for Waterfowl), and South Unit.

**Table A-2: Assabet River NWR Hunting Units**

Hunt Unit	Acres	Bear <sup>1</sup>	Coyote <sup>2</sup>	Deer	Fox <sup>2</sup>	Grouse	Rabbit	Squirrel	Turkey	Waterfowl	Woodcock
North Unit A	1,332	X	X	C	X	C	C	C	C	S	C
North Unit B	520	X	X	C	X				C		
Unit C	123	X	X	X	X				X	X	
South Unit	298	X	X	C	X				C		
<b>Total Acres</b>	<b>2,273</b>	2,273	2,273	2,273	2,273	1,332	1,332	1,332	2,273	1,455	1,332

*C = Currently Opened, X = New Opportunity, S = Special Hunts Only*

S- Hunting of waterfowl in North Unit A is only during special refuge sponsored hunts.

1- Bear hunting is only open during 2nd and shotgun season only.

2- Coyote and fox hunting is only open concurrent with deer season; no baiting, no night hunting.

Great Meadows NWR

Great Meadows NWR totals 3,874 acres. The refuge is comprised of two divisions, the Concord Division and the Sudbury Division, that span 14 miles across 7 towns along the Sudbury and Concord Rivers. Surrounding the refuge is suburban residential housing and mixed use development areas. Within the two Division there are 11 units that current allow archery-only deer hunting.

Approximately 2,280 acres of the refuge are currently opened to archery deer hunting. We will be opening additional 778 acres of lands in two units for archery deer hunting. See Table A-3: Great Meadows NWR Hunting Units for a list of specific hunt units, species, and acres. These areas are located on refuge lands North of Sherman’s Bridge Road in Sudbury and South of route 225 in Bedford and Concord. Additionally, Great Meadows NWR will open all current deer hunting units to turkey and coyote using archery equipment only. The refuge will also be open to black bear hunting in all units except South of SR 225 and North of Sherman Bridge Rd using archery equipment only. The refuge is currently open to waterfowl hunting in portions of four units along the Sudbury and Concord River. The total riverine and associated wetland acreage included currently open to hunting is approximately 334 acres, which is less than 10 percent of the refuge acreage. The refuge’s Concord Impoundments will remain closed to hunting. Under

this expansion plan, we will open up an additional 670 acres to waterfowl hunting including 376 acres at Pelham Island and 294 riverine acres north of Sherman Bridge Road.

**Table A-3: Great Meadows NWR Hunting Units**

Hunt Unit	Acres	Bear	Deer	Coyote	Turkey	Waterfowl*
<b>CONCORD UNIT</b>						
Bedford	279	X	C	X	X	
Carlisle	259	X	C	X	X	
Concord River Waterfowl	109	X	C	X	X	C
Kinnelly	53	X	C	X	X	
South of SR 225	484		X	X	X	
<b>SUDBURY UNIT</b>						
North of Sherman Bridge Rd	294		X	X	X	X
Water Row	628	X	C	X	X	
Sudbury River Waterfowl	274	X	C	X	X	C
Wolbach Strand	237	X	C	X	X	
Pelham Island	376	X	C	X	X	X
Stone Bridge	303	X	C	X	X	
South of Heard Pond	105	X	C	X	X	C
<b>Total Acres</b>	<b>3,401</b>	2,623	3,401	3,401	3,401	1,004

*C = Currently Opened, X = New Opportunity*

\* All hunting units are archery only except for waterfowl.

\* Acres open to waterfowl may only reflect a portion of the Hunt Unit to reflect riverine and wetland areas. See Figures 2 and 3 in Hunt Plan for specific waterfowl hunting areas.

#### Oxbow NWR

Oxbow NWR currently includes 1,695 acres along the Nashua River. Portions of Oxbow NWR south of route 2 have been open to hunting of turkey, gray squirrel, cottontail rabbit, ruffed grouse, snipe and American woodcock since 1976 under previous ownership. Hunting is currently allowed on 1,543 acres which includes all units except the Closed Area and Hospital Road North. Under the new hunting plan an additional 128 acres will be open, increasing the total hunting acreage to 1,671. No rifles or handgun are allowed refuge wide. See Table A-4: Oxbow NWR Hunting Units (1) and (2) for a list of specific hunt units, species, and acres.

In the north units we are proposing to maintain hunting opportunities in the Walker Road unit (158 acres) for deer, turkey, upland game (grouse, rabbit, and squirrel) and woodcock. Opportunities for bear hunting will also be added to Walker Road Unit in alignment with State Regulations, with the exception of no rifles or handguns allowed. The Bishop Road Unit (234

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acres) is currently only open for archery deer and turkey hunting. Bishop Road area will be opened for new opportunities including upland game (grouse, rabbit, and squirrel), migratory birds (woodcock and waterfowl), turkey and bear, with the exception of no rifles or handguns allowed. Coyote and fox opportunities will be added following State regulations and only concurrently with deer season, and corresponding method of take for deer. Following these changes, Bishop Road and Walker Rod will be combined and renamed North Unit. The Sheridan Road Unit (142 acres) and Hospital Road South Unit (169 acres) are currently open for archery deer hunting and shotgun grouse, rabbit, squirrel, turkey and waterfowl. Woodcock hunting is also allowed on Sheridan Road. We will expand hunt opportunities to include bear, coyote, and fox as well as come into alignment for method of take for these species in these two units, with exception of no rifles or handguns allowed. The Hospital Road North Unit will be opened for the first time. Due to the proximity to sports fields, hunting opportunities for bear, coyote, deer, fox, and turkey will be by archery only following State regulations in addition to refuge-specific regulations.

The Route 2 South Unit at Oxbow NWR (248 acres) is currently open for white-tailed deer, turkey, woodcock, snipe, and upland game hunting. Coyote and fox opportunities will be added following State regulations and only concurrently with deer season, and corresponding method of take for deer. Bear will also be added following state seasons and method of take with the exception of no rifles or handguns allowed. . The Waterfowl area totals 466 acres and is open to hunt opportunities for the same species as the adjacent Route 2 South Unit and also includes waterfowl. We will expand waterfowl hunting opportunities to the adjacent Route 2 South Unit. Following these changes, Route 2 South and Waterfowl Area will be combined and collectively called Route 2 South. The Still River Depot Area is currently open and will be maintained as an archery only hunting area for deer and turkey. Archery only coyote, fox, and bear hunting opportunities will be added following refuge-specific regulations.

The portions of Oxbow NWR from Hospital Road north to Shirley Road/West Main Street, and from Shirley Road/West Main Street to the north side of the railroad tracts crossing MacPherson Road will remain closed to hunting.

**Table A-4: Oxbow NWR Hunting Units (1)**

<b>Hunt Unit</b>	<b>Acres</b>	<b>Bear</b>	<b>Deer</b>	<b>Turkey</b>	<b>Coyote</b>	<b>Fox</b>
North Unit	392	X	C	C	X	X
Hospital Road North	128	X	X	X	X	X
Hospital Road South	169	X	C	C	X	X
Sheridan Road	142	X	C	C	X	X
Still River Depot Area	126	X	C	C	X	X
Route 2 South	714	X	C	C	X	X
<b>Total Acres</b>	1,671	1,671	1,671	1,671	1,671	1,671

*C = Currently Opened, X = New Opportunity*

**Table A-5: Oxbow NWR Hunting Units (2)**

Hunt Unit	Acres	Grouse	Rabbit	Snipe	Squirrel	Waterfowl	Woodcock
North Unit	392	X	X		X	X	X
Hospital Road North	128	X	X				
Hospital Road South	169				C	C	
Sheridan Road	142	C	C		C		C
Still River Depot Area	126						
Route 2 South	714	C	C	C	C	C	C
<b>Total Acres</b>	1,671	1,417	1,417	714	1,417	1,275	1,248

*C = Currently Opened, X = New Opportunity*

**(c) When would the use be conducted?**

Hunt seasons for big game, upland game, and migratory game bird will be in accordance with State of Massachusetts hunting seasons except for bear, coyote, and fox. At Assabet River NWR, bear hunting will only be open during the second season and shotgun season following refuge-specific regulations in addition to Massachusetts State regulations. For coyote and fox, Assabet River, Great Meadows, and Oxbow NWR will only open concurrent with the deer season to mitigate conflicts with user groups such as Urban Education and other Youth Environmental Education programs that take place in the fall. The refuge also does not currently have the resources to administer such a long hunt season. Turkey hunting is currently allowed in the spring only. All three refuges will open for the fall turkey season (following refuge method of take restrictions in some areas) and in accordance with State regulations.

**(d) How would the use be conducted?**

All persons hunting on the refuge will be required to obtain the necessary State licenses, permits and stamps. A valid Massachusetts hunting license is required. Migratory game bird hunters will be required to have a Federal Migratory Bird Hunting and Conservation Stamp (“Duck Stamp”). In addition, all hunters on any of the three refuges in the northern part of the Complex (Great Meadows, Oxbow and Assabet River NWRs) will need to purchase and possess an annual hunting permit. Individual hunting permits are required for each of the deer, migratory bird, turkey, and upland game hunting seasons and cover those species at Assabet River, Great Meadows, and Oxbow NWRs. Youth hunters (between the ages of 12 to 17) are required to obtain a single permit at no cost that covers all hunting seasons. Discounted permits are offered to active-duty members of the military, permanently disabled hunters, and senior citizens (at least 62 years of age).

To maintain a quality hunt, the number of permits made available for shotgun and muzzleloader deer season are limited and disbursed through a lottery system. Permits for all hunts are sold online through a 3rd-party vendor.

The refuge will make a reasonable effort to allow hunters access to all portions of the hunt areas. The intention is to provide safe, quality hunting opportunities that consider the welfare of the refuge wildlife resources. Access to the refuge for all hunt seasons is through walking, snowshoeing, or via boat. All access points including hunter parking lots and boat ramps will be delineated on refuge hunt maps and will be included in the hunt brochures.

Cutting of vegetation is prohibited. Limited special hunts will be provided for Americans with Disabilities Act (ADA) hunters and other special user groups including. Selected roads on the refuge will remain open for restricted vehicle traffic. Some of these roads will allow us to provide ADA hunting opportunities. Hunters must mark tree stands/blinds with refuge permit number.

**(e) Why is the use being proposed?**

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. During the CCP process, each of these three refuges identified goals to provide opportunities for hunting and fishing where appropriate and compatible with refuge purposes. Assabet River NWR established specific goals to open the refuge to upland game, migratory birds, and big game species in their CCP. Both Great Meadows and Oxbow NWRs established goals to expand the hunting acreage for white-tailed deer and waterfowl.

Therefore, this proposed action will bring these refuges into compliance with objective set in their CCPs. 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 promote one of the priority public uses of the Refuge System, and providing opportunities for visitors to hunt will promote stewardship of our natural resources and increase public appreciation and support for the refuge.

**AVAILABILITY OF RESOURCES:**

There are sufficient funds within the annual operating budget of the Eastern Massachusetts NWRC to conduct the expanded refuge hunting program as proposed. There will be little difference in the amount of law enforcement needed under the previous hunting plan and this proposed expanded plan at Assabet River, Great Meadows, and Oxbow NWRs. During the hunt season, current law enforcement efforts are focused on prohibiting poaching in the refuge and ensuring a safe hunt. The refuge has successfully implemented hunting programs on all three refuges for over 10 years.

Hunting on the refuge will be by annual permit and fees are collected for specific hunting season

including archery deer, muzzleloader deer, shotgun deer, turkey, upland game. One fee is valid for Assabet River, Great Meadows, and Oxbow NWRs only for the seasons that are allowed at each NWR. Fee money collected will help recover costs for funding the program.

**Table A-6: Initial Costs of Hunting Programs at Eastern Massachusetts NWRC**

<b>Activity</b>	<b>Material Costs</b>	<b>Labor Costs</b>	<b>Total</b>
Document Preparation	\$500	\$5,000	\$5,500
Posting/Signs	\$3,000	\$1,000	\$4,000
Administration	\$500	\$5,000	\$5,500
Outreach	\$500	\$2,000	\$2,500
Law Enforcement	\$1000	\$30,000	\$31,000
<b>Totals</b>	<b>\$5,000</b>	<b>\$28,000</b>	<b>\$48,500</b>

**Table A-7. Annual Costs of New Hunting Programs at Eastern Massachusetts NWRC**

<b>Activity</b>	<b>Material Costs</b>	<b>Labor Costs</b>	<b>Total</b>
Document Preparation	\$500	\$1,800	\$2,300
Posting/Signs	\$500	\$1,500	\$2,000
Administration	\$1000	\$3,000	\$4,000
Outreach	\$500	\$1,800	\$2,300
Law Enforcement	\$1,000	\$30,000	\$31,000
<b>Totals</b>	<b>\$3,500</b>	<b>\$38,100</b>	<b>\$41,600</b>

**ANTICIPATED IMPACTS OF THE USE:**

Hunting can result in positive or negative impacts to the wildlife resource. A positive effect of increasing access to the refuge will be the provision of additional wildlife-dependent recreational opportunities and a better appreciation and more complete understanding of the wildlife and habitats associated with Massachusetts ecosystems. This can translate into more widespread and stronger support for the refuges of the Complex, the Refuge System, and the Service.

**Vegetation**

The current number of hunters comprises a small fraction of the Complex’s total visitation. Hunting could negatively impact vegetation by trampling or creating foot paths. With the

opening of new hunt areas that trampling of vegetation may increase slightly, but the physical effects on refuge vegetation from hunting is expected to be minimal based on anticipated levels of use. Hunting could create a positive, indirect effect on vegetation through controlling the white-tailed deer population.

Negative cumulative impacts of recreational hunting include the temporary trampling of vegetation and light soil erosion. Most hunting activities occur during the fall, but impacts will be minimal. Some hunt seasons extend into winter when plants are dormant and the ground is frozen and/or covered in snow. Hunters would have minimal impacts on plants during this period. For these reasons, hunting is expected to have minimal adverse short-term, long-term, or cumulative impacts on vegetation.

### **Soils**

It is anticipated that hunting on the Complex will have minor impacts to soils. The hunt program has the potential to cause some compaction and/or erosion because off-trail foot travel does occur. However, with a limited number of hunters dispersed across the refuge during the hunting season, impacts would be minimal. At the anticipated levels of use, hunting is expected to have minimal adverse short-term, long-term, or cumulative impacts on soils.

### **Hydrology (Water Resources and Wetlands)**

Hydrology impacts from hunting would be minimal and only result from the use of roads and trails. Unsurfaced trails are susceptible to a variety of impacts including vegetation loss and compositional changes, soil compaction, erosion and muddiness, exposure of plant roots, trail widening, and the proliferation of visitor created side trails (Marion and Leung 2001). However, hunting is expected to have minimal adverse short-term, long-term, or cumulative effects as hunters are generally dispersed, which reduces repeated erosive actions on soils.

### **Other Wildlife**

Hunting can have direct and indirect 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.

### **White-Tailed Deer**

The white-tailed deer population in Massachusetts is estimated at over 100,000 deer in total (MassWildlife 2018). In some areas, deer density is as high as 25 to 30 deer per square mile. Oxbow NWR is located in Massachusetts' wildlife management zone (WMZ) 9. Assabet River and Great Meadows NWRs are located in WMZ 10. For WMZ 9, the State has set the target deer density at 12 to 18 deer per square mile of forest. In 2018, WMZ 9 was within that target range. For WMZ 10 the State has set the target deer density at 6 to 8 deer per square mile of forest. In 2018, WMZ 10 was well above that target range (MassWildlife 2018). With the deer populations on each refuge either within or above the carrying capacity for that area, white-tailed

deer hunting on the Complex is expected to have minimal adverse impacts to the State-wide population.

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.

### **Wild Turkey**

The State's turkey population is estimated to be between 30,000 and 35,000 individuals (MassWildlife 2018). Disturbance to turkeys in an area will occur during the hunting season, but the disturbance is considered negligible, as flocks are prone to move regularly over large areas. Expanding turkey hunting opportunities on the complex will not have any significant impacts to local or regional turkey populations.

### **Black Bear**

State-wide black bear hunting has been permitted in Massachusetts since 2015. Black bear hunting on the complex will not have any significant impacts to the local or regional black bear populations. Disturbance to this species may occur during the hunting season, although the disturbance is considered negligible as the number of individuals encountered will be small.

### **Upland Game**

Disturbance to these species in the area will occur during the hunting season, although the disturbance is considered negligible as the number of individuals encountered will be small. Potential impacts to target species include direct mortality or injury and indirect changes in behavior. To mitigate additional adverse impacts, the Eastern Massachusetts NWRC prohibits the use of toxic ammunition for upland game hunting.

### **Game Birds**

Hunting would not have a significant impact on local, regional, or Atlantic Flyway waterfowl populations because the percentage taken on the Complex, though possibly additive to existing hunting take, would measure a fraction of a percent of the estimated migratory game birds populations. Potential impacts to target migratory species include direct mortality or injury and indirect changes in behavior. In addition to direct mortality, hunting could result in some short-term redistribution due to disturbance.

### **Other Visitors and Users**

Under the proposed action the refuges of the Complex would be open to priority public uses including wildlife observation, environmental education, interpretation, photography, hunting, and fishing. With the addition of new hunt areas, a slight increase in the number of conflicts among user groups can be expected. During the hunting season, non-hunters may limit refuge visits to Sundays or they may avoid the refuge altogether. Public outreach, zoning, and restrictions in some locations have been proposed to reduce conflicts among the different user

groups. 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.

### **Cumulative Impacts**

Cumulative impacts on the environment result from incremental impacts of a proposed action when these are added to other past, present, and reasonably foreseeable future actions. The refuge hunt program is designed to be sustainable through time, given relatively stable conditions, particularly because of close coordination with MassWildlife. The cumulative impacts of hunting on big game, upland game, and game bird populations at the Complex are negligible. The proportion of the refuge's harvest of these species is negligible when compared to local, regional, and State-wide populations and harvest.

Because of the regulatory process for harvest management in place within the Service, 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 direct or indirect cumulative impacts on resident wildlife, migratory birds, and non-hunted wildlife of by use of hunting on the refuge.

Refuges, including those of the Complex, conduct hunting programs within the framework of State and Federal regulations. Hunting at the refuge is at least as restrictive as the Commonwealth of Massachusetts and in some cases more restrictive. Additionally, the refuge coordinates with the State as needed to maintain regulations and programs that are consistent with the State's management programs. Thus, we anticipate no direct or indirect cumulative effects on resident wildlife, migratory birds, or non-hunted wildlife by hunting at the Eastern Massachusetts NWRC.

### **PUBLIC REVIEW AND COMMENT:**

This Compatibility Determination (CD) is part of the Eastern Massachusetts NWRC Hunting Plan and the accompanying EA. The plan has been thoroughly coordinated with all interested and/or affected parties, including MassWildlife. On March 16, 2020, we distributed a press release to news organizations and alerted the public about the availability of the hunting plan with postings on the respective refuge's websites. We also notified local town representatives and partners as well as emailed to members of the Friends of Assabet River NWR mailing lists. No public meetings were held due to bans on public gatherings due to COVID-19. The Refuge Manager did answer questions on the hunt plan during a Monthly River Stewardship Council Meeting of the Sudbury, Assabet, and Concord River Wild and Scenic Partnership, attended by representatives from seven towns and three partner groups. Upon request, the public comment period was extended from April 24, 2020 until May 22, 2020, for a total comment period of 68 days.

A total of 189 unique comments representing 501 individuals or entities were submitted to the refuge. Among these were two petitions: an online Care2.com petition with 262 signatures representing 40 people from Massachusetts, 55 people from other states, and 167 people living in

other countries; and, a mailed petition representing 25 Massachusetts people. Appendix D summarizes the substantive comments received on the proposal, and the Service's responses.

**DETERMINATION (CHECK ONE BELOW):**

Use is not compatible

Use is compatible, with the following stipulations

**STIPULATIONS NECESSARY TO ENSURE COMPATIBILITY:**

The Complex will manage the hunt program in accordance with Federal and State regulations and review it annually to ensure wildlife and habitat goals are achieved and that the program is providing a safe, high quality hunting experience for participants. To ensure compatibility with refuge purposes and the mission of the Refuge System, hunting will occur on the Complex under the refuge-specific regulations highlighted in this document and the following stipulations:

- Eastern Massachusetts NWRC only permits non-toxic ammunition for migratory bird and upland game hunting.
- Refuge lands are closed to night hunting. Refuge hunting hours are half hour before sunrise to half hour after sunset, except for migratory waterfowl which is open to sunset.
- Hunters may enter the refuge 1.5 hours before legal hunting time and must leave the refuge within 1.5 hours after legal sunset.
- We allow the use of dogs consistent with State regulations when hunting migratory birds and upland game species.
- On Great Meadows NWR, only archery equipment may be used to hunt white-tailed deer, bear, turkey and coyote.
- On Assabet River and Oxbow NWR, no rifles or handguns are permitted for hunting of any species.
- Scouting can occur once the hunter has obtained a refuge permit. Scouting can begin no earlier than 4 weeks from the opening day of the hunt season from half hour before sunrise to half hour after sunset.

**JUSTIFICATION:**

The Refuge System Improvement Act of 1997 (P.L. 105-57) identifies six legitimate and appropriate uses of wildlife refuges: hunting, environmental education, interpretation, fishing, wildlife observation and wildlife photography. Hunting is a priority wildlife-dependent use for the Refuge System through which the public can develop an appreciation for fish and wildlife.

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Service policy is to provide expanded opportunities for wildlife-dependent uses when compatible and consistent with sound fish and wildlife management and ensure that they receive enhanced attention during planning and management.

Hunting satisfies a recreational need, but hunting on national wildlife refuges is also an important, proactive management action that can prevent overpopulation and the deterioration of habitat. Disturbance to other species will occur, but this disturbance is generally short-term. Suitable habitat exists on refuge lands to support hunting as proposed.

This activity will not conflict with any of the other priority public uses or adversely impact biological resources. Therefore, through this compatibility determination process, we have determined that hunting on the refuge, in accordance with the stipulations provided above, is a compatible use that will not materially interfere with, or detract from, the fulfillment of the Refuge System mission or the purpose(s) of the refuge.

**SIGNATURE:**

Refuge Manager

\_\_\_\_\_

(Signature)

\_\_\_\_\_

(Date)

**CONCURRENCE:**

Regional Chief

\_\_\_\_\_

(Signature)

\_\_\_\_\_

(Date)

**MANDATORY 15 YEAR RE-EVALUATION DATE:**

\_\_\_\_\_

(Date)

**LITERATURE CITED:**

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