

ENVIRONMENTAL ASSESSMENT

PUBLIC HUNTING

PONDICHERRY DIVISION

SILVIO O. CONTE NATIONAL FISH AND WILDLIFE REFUGE

Jefferson and Whitefield, New Hampshire

April 20, 2007

U.S. Department of Interior

U.S. Fish and Wildlife Service

UNITED STATES FISH AND WILDLIFE SERVICE

ENVIRONMENTAL ACTION STATEMENT

Within the spirit and intent of the Council on Environmental Quality's regulations for implementing the National Environmental Policy Act (NEPA), and other statutes, orders, and policies that protect fish and wildlife resources, I have established the following administrative record and have determined that the action of (describe action):

A public hunting program for migratory birds, big game, and small game at the Pondicherry Division of the Silvio O. Conte National Fish and Wildlife Refuge.

Check One:

_____ is a categorical exclusion as provided by 516 DM 2, Appendix 1 and 516 DM 6, Appendix 1. No further NEPA documentation will therefore be made.

X is found not to have significant environmental effects as determined by the attached environmental assessment and finding of no significant impact.

_____ is found to have significant effects and, therefore, further consideration of this action will require a notice of intent to be published in the Federal Register announcing the decision to prepare an EIS.

_____ is not approved because of unacceptable environmental damage, or violation of Fish and Wildlife Service mandates, policy, regulations, or procedures.

_____ is an emergency action within the context of 40 CFR 1506.11. Only those actions necessary to control the immediate impacts of the emergency will be taken. Other related actions remain subject to NEPA review.

Other supporting documents (list): Hunt Management Plan, Compatibility Determination

Signature Approval:



(1) Originator

4-20-07

Date



(2) W/O/RO Environmental
Coordinator

4/25/07

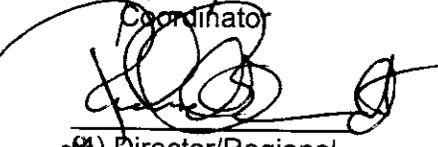
Date



(3) AD/ARD
Acting

4-27-07

Date



(4) Director/Regional
Director
Acting

4/27/07

Date

**FINDING OF NO SIGNIFICANT IMPACT
PONDICHERRY DIVISION
SILVIO O. CONTE NFWR
HUNTING OPPORTUNITIES**

The U.S. Fish and Wildlife Service proposes to open hunting for migratory birds, big game, and small game on Pondicherry Division of the Silvio O. Conte National Fish and Wildlife Refuge. The Environmental Assessment for Public Hunting (EA) evaluated two hunt program alternatives, carefully considering their impacts on the environment, and their potential contribution to the mission of the National Wildlife Refuge System, and the refuge's purposes and goals. Hunting activities will be permitted in compliance with state and refuge-specific regulations. All or parts of the refuge may be closed to hunting at any time if necessary for public safety, to provide wildlife sanctuary, or for other reasons.

The Service has analyzed the following alternatives to the proposal in an Environmental Assessment (copy attached):

Alternative 1: This was the No Action Alternative in the EA required by the Council of Environmental Quality's regulations on implementing the National Environmental Policy Act. Under this alternative, there would be no hunt program at the Pondicherry Division. Other approved public uses would not be affected.

Alternative 2: This alternative was the Service's Proposed Action in the Draft EA. This alternative offers opportunities for migratory bird, big game, and small game hunting. These new hunting opportunities would be governed by New Hampshire and refuge-specific regulations.

The preferred alternative was selected over the other alternatives because:

1. The preferred alternative would allow the refuge to manage wildlife populations, allow the public to harvest a renewable resource, promote a wildlife-oriented recreational opportunity, increase awareness of the Pondicherry Division and the National Wildlife Refuge System, and meet public demand.
2. The preferred alternative is compatible with general Service policy regarding the establishment of hunting on National Wildlife Refuges.
3. The preferred alternative is compatible with the purpose for which Silvio O. Conte National Fish and Wildlife Refuge was established.
4. This proposal does not initiate widespread controversy.
5. There are no conflicts with local, state, regional, or federal plans or policies.

Implementation of the agency's decision would be expected to result in the following environmental, social, and economic effects:

1. The refuge could better manage wildlife populations.
2. This would allow the public to harvest a renewable resource.
3. The public would have increased opportunity for wildlife-oriented recreation.
4. Local businesses would benefit from hunters visiting from other areas.
5. The Service will be perceived as a good steward of the land by continuing traditional uses of land in New Hampshire.

Copies of the Environmental Assessment are available by writing:

Silvio O. Conte National Fish and Wildlife Refuge
103 East Plumtree Road
Sunderland, MA 01375

Therefore, it is my determination that the proposal does not constitute a major Federal action significantly affecting the quality of the human environment under the meaning of section 102(2)(c) of the National Environment Policy Act of 1969 (as amended). As such, an environmental impact statement is not required. This determination is based on the following factors (40 CFR 1508.27):

1. **Both beneficial and adverse effects have been considered and this action will not have a significant effect on the human environment (EA, page 16-35)**
2. **The project will not significantly effect any unique characteristics of the geographic area such as proximity to historical or cultural resources, wild and scenic rivers, or ecologically critical areas (EA, page 16-17, 31-34).**
3. **There will be no cumulative significant impacts on the environment. Cumulative impacts have been analyzed with consideration of other similar activities on adjacent lands, in past action, and in foreseeable future actions (EA, pages 22-35).**
4. **The actions will not significantly affect any site listed in, or eligible for listing in, the National Register of Historic Places, nor will they cause loss or destruction of significant scientific, cultural, or historic resources (EA, pages 17, 32).**
5. **The actions are not likely to adversely affect endangered or threatened species, or their habitats (Intra-Service Section 7 Biological Evaluation Form attached to EA).**
6. **The actions will not lead to a violation of federal, state, or local laws imposed for the protection of the environment (EA, pages 36).**

References: Environmental Assessment of 2007 Hunt Plan for Pondicherry Division,
Hunting Plan, Compatibility Determination, Letters of Concurrence, Refuge-specific
Regulations, Intra-Service Section 7 Evaluation



Marvin Moriarty
Regional Director
U.S. Fish and Wildlife Service
Hadley, Massachusetts

Acting

4-27-07
Date

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I. Purpose and Need for Action

A. Background

In response to a 2003 lawsuit filed by the Fund for Animals, the U.S. Fish and Wildlife Service (Service) will amend or rewrite environmental assessments that describe hunting programs at sixteen national wildlife refuges in the Northeast Region. The new environmental assessments will address the cumulative impacts of hunting at all refuges which were named in or otherwise affected by the lawsuit. This document addresses the hunting program at the Pondicherry Division of the Silvio O. Conte National Fish and Wildlife Refuge in New Hampshire.

The Pondicherry Division (Pondicherry or Refuge) is part of the Silvio O. Conte National Fish and Wildlife Refuge which encompasses the entire 7.2 million-acre Connecticut River watershed in parts of New Hampshire, Vermont, Massachusetts, and Connecticut. The Conte Refuge was established to protect the abundance and diversity of native species in this watershed through land conservation and to provide technical and financial support to partners for habitat management, research, outreach, and education. The 1995 Final Environmental Impact Statement (U.S. Fish and Wildlife Service 1995) which resulted in the establishment of the Conte Refuge identified 48 Special Focus Areas that merited conservation actions. Pondicherry was listed as Special Focus Area Number 41 for the "...wetland complex of bogs, streams and ponds surrounded by spruce/fir forest." It was noted as important habitat for wood ducks, ring-necked ducks, and black ducks.

The Pondicherry Division was established on December 22, 2000 when 670 acres in Jefferson and Whitefield, New Hampshire were purchased by the U. S. Fish and Wildlife Service (Service) from Hancock Timber Resources Group (Figure 1). Land protection here actually began in the early 1960s when the Audubon Society of New Hampshire (Audubon) and the State of New Hampshire established a 296-acre wildlife sanctuary around Cherry and Little Cherry ponds. Audubon purchased title to a buffer around both ponds which are considered Great Ponds and therefore, managed by the State of New Hampshire Fish and Game Department. Since 2000, the Pondicherry Division has grown to 5,260 acres in fee title and a 166-acre conservation easement on the Audubon property (Figure 2). The New Hampshire Bureau of Trails manages a state-owned rail-trail that crosses through the Refuge.

Pondicherry has been regarded as a prime birding area for decades, and was first brought to the public's attention in Horace Wright's 1911 book *Birds of the Jefferson Region in the White Mountains* (Wright 1911). The area received national attention in 1972 for its stable bog-forest communities and unusual variety of birds when it was selected by the National Park Service to be a National Natural Landmark. More recently, Pondicherry was selected to be the first Important Bird Area in New Hampshire in 2003, and in 2006 the Little Cherry Pond Trail was designated a National Recreation Trail.

There is a long tradition of hunting on the Pondicherry Division particularly for white-tailed deer, moose, black bear, ruffed grouse, and American woodcock. Previous landowners allowed hunting on the property for many years prior to acquisition by the Service. The abundant early succession forests created by recent logging have undoubtedly created excellent habitat for grouse, as well as snowshoe hare. The Refuge lies within New Hampshire Wildlife Management Unit (WMU) D and D1, and although a relatively small portion of the total WMU, it does contribute to harvest objectives for deer, moose, and bear and provides an opportunity to hunt on public lands. Turkey hunting is generally better in the surrounding agricultural lands, but some effort may occur on the Refuge. Waterfowl hunting is not allowed on state-owned Cherry and Little Cherry ponds, or on the shoreline property owned by Audubon. This may explain why few people hunted waterfowl on the rest of the property which was open to all hunting when owned by the timber companies. The State stocks pheasants on lands nearby and some birds may be incidentally harvested on the Refuge.

Figure 1. Original Refuge 670-acre land acquisition at the Pondicherry Division.

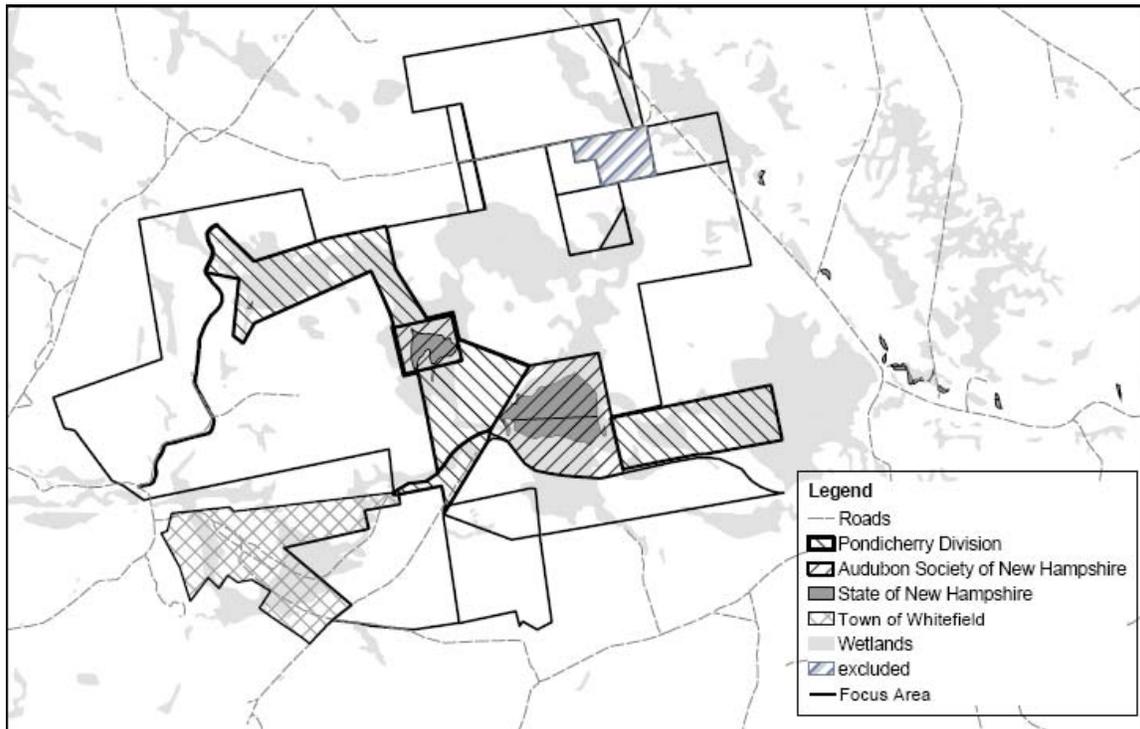
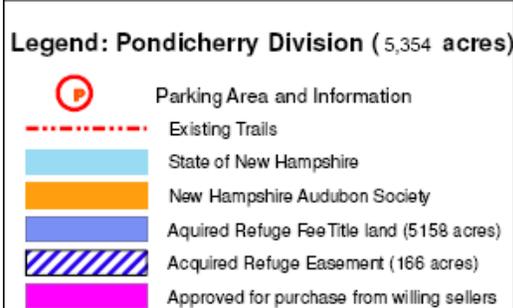
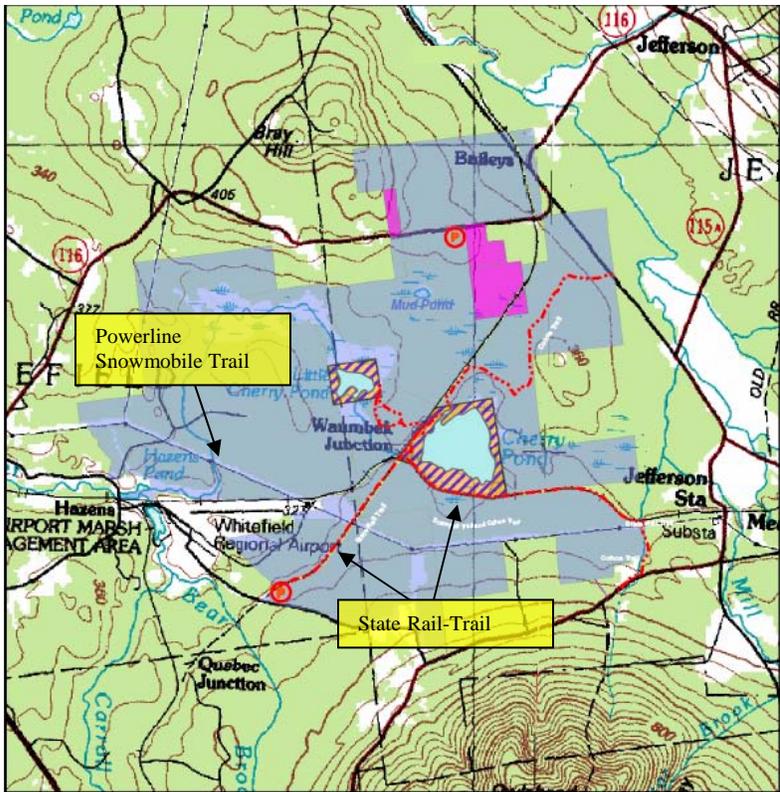


Figure 2. Current status of the Pondicherry Division.



B. Purpose and Need for Action

The purpose of this action is to allow hunting to continue, uninterrupted, at the Pondicherry Division in compliance with Service policy and following State of New Hampshire regulations.

Hunting is a popular recreational activity in northern New Hampshire with a historical basis at the Pondicherry Division, where previous landowners, primarily timber companies, allowed access to pursue big game, small game, and migratory birds for decades. Pondicherry is known as a good place to hunt ruffed grouse. Continuing this tradition of regulated hunting contributes to the sixth legislated purpose of the Silvio O. Conte National Fish and Wildlife Refuge: “Provide...fish and wildlife oriented recreation and access to the extent compatible with the other purposes ...” This activity is also one of the six priority public uses established by Executive Order 12996 (March 25, 1996), and legislatively mandated by the National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57).

Wildlife managers employ hunting as a tool to maintain population levels of some game species within limits that are socially acceptable and can be supported by the available habitats. New Hampshire Fish and Game Department recently completed a ten-year plan to meet specific population goals for white-tailed deer, moose, black bear, and wild turkey (New Hampshire Fish and Game Department 2005). Pondicherry represents a

small portion of WMU D and D1, but harvest of these species does contribute toward the state's long-term population objectives.

II. Proposed Action and the Alternatives

Two alternatives were developed for this assessment:

Alternative 1 – No Action. The Refuge would be closed to all hunting.

Alternative 2 – Proposed Action. The Refuge would be open to hunting big game, small game, and migratory birds under a combination of New Hampshire state and Refuge-specific regulations (Appendix 1). This alternative would continue the philosophy of the previous landowners, who allowed hunter access to the property, and responds to the issue of keeping the land available to hunters. Bag limits would follow the annual state regulations, as would most other requirements. In addition to the state regulations, refuge-specific regulations would require hunters to:

- Wear a minimum of 400 square inches of hunter orange material except for waterfowl, turkey, and while archery hunting.

- Snowshoe hare and coyote hunting with dogs would be limited to the period between October 1 and March 15.

- Bear baiting would be prohibited.

- Temporary tree stands would be allowed, but would have to be removed at the end of the season. The owner's name and address would have to be clearly visible on the stand.

These alternatives represent a reasonable range required by the National Environmental Policy Act of 1969, as amended (NEPA). Both are feasible management options that would meet all legal and policy requirements and could be implemented at the Pondicherry Division.

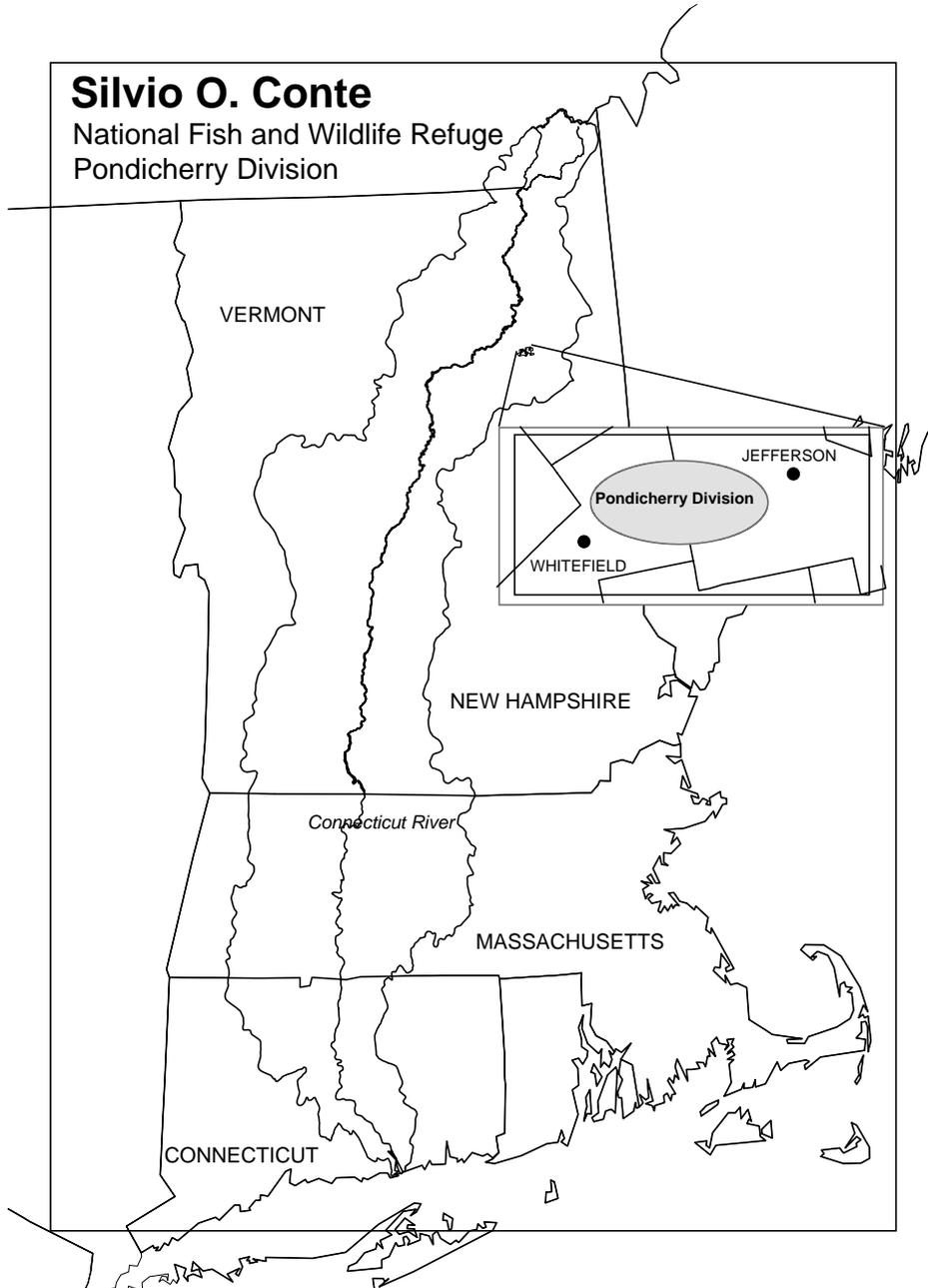
III. Affected Environment

A. Introduction

This chapter describes the existing natural and human environment in the Pondicherry Study Area that would be affected by the proposed federal action. As such, it provides the baseline for comparing the consequences of implementing each alternative in Chapter 4 – Environmental Consequences.

The Connecticut River is the longest river in New England and flows south from Fourth Connecticut Lake on the New Hampshire and Quebec border for 410 miles to Long Island Sound. The 7.2 million acre Connecticut River watershed, the project boundary of the Silvio O. Conte National Fish and Wildlife Refuge, is located in four states, 13 percent is in Connecticut, 24 percent is in Massachusetts, 28 percent is in New Hampshire, and 35 percent is in Vermont.

Figure 3. Location of the Pondicherry Division in the Connecticut River watershed.



B. Physical Factors

This section will present information concerning the climate, geology, and land use within the study area.

Location

The Pondicherry Division is located in Jefferson and Whitefield, New Hampshire, twelve miles northwest of Mount Washington, in Coos County, New Hampshire (Figure 3).

Climate

Northern New Hampshire has a continental polar climate that experiences occasional strong storms that originate in the Atlantic Ocean. Approximately 45 inches of precipitation fall annually, spread throughout the year. Average temperatures range from approximately 12 degrees F in January to about 64 degrees F in July and August. There are about 100 to 130 frost free days. Pondicherry is situated in a basin which acts as a cold air sink with a slightly lower average temperature than the county average. Being in the snow shadow of the Franconia and Presidential Ranges, the area receives slightly less precipitation than the Coos County average.

Geology

Pondicherry lies in a three-sided basin, surrounded to the north, east, and south-by peaks rising from 4,600 feet (Pliny Range) to 5,600 feet (Presidential Range) above the Refuge. To the west, low hills separate the basin from the Connecticut River Valley. The shape of the basin was instrumental in determining the sequence of glacial events that shaped the landscape in the Pondicherry vicinity. Ice advanced from the northwest, scouring rocks and depositing sediments as it moved. Between 12,000 and 10,000 years ago as the climate warmed the ice receded and blocked the low western edge of the basin forming a bowl. Melt water behind the ice dam resulted in the formation of glacial Lake Israel, with an outlet east over the notch to the Moose River Valley. The surface of the lake was at approximately 1,500 feet elevation. At that time, the Refuge was several hundred feet below the lake surface.

The lake's outlet eventually shifted to its present location, which drains west into the Connecticut River. Additional lakeshore deposits in the area at 1,000 feet elevation suggest a lower, second stage of glacial Lake Israel. During this stage, Pondicherry would have been about lake level and may have received additional deposits of sand, gravel, and boulders from the Israel River. As the water level dropped, ice blocks became imbedded in the dry lake bottom and were surrounded by deposits of sand. When the ice melted, depressions formed kettle lakes, which are now Cherry Pond, Little Cherry Pond, and Mud Pond. These ponds along with Moorhen Marsh and the John's River are the primary wetland habitats used by resident and migratory waterfowl.

Topography and Hydrology

The surface of Cherry Pond is 1,100 feet above sea-level. Little Cherry Pond is approximately ten feet lower. Between the two ponds, the John's River is roughly ten feet wide, three to six feet deep. The river bottom is sand and gravel near Cherry Pond

and organic near Little Cherry Pond. In the Deadwater that drains Little Cherry Pond, the John's River averages 32 feet wide and varies in depth from approximately three feet to four inches where the river is blocked by boulders. The outlet draining Mud Pond flows into the north side of Little Cherry Pond.

Several small brooks flow into Big Cherry Pond, including one that flows through a culvert under the abandoned railroad tracks on the southern edge of the pond. As it passes through the culvert, the water drops approximately three feet from the backwater to Cherry Pond, suggesting construction of the railroad track raised the water level in the backwater.

Pondicherry is located entirely within the John's River watershed which is bounded to the east by Cherry Pond and its small tributaries. The southern and northern boundaries are Cherry Mountain and Bray Hill, respectively. Downstream, the John's River flows through Whitefield, New Hampshire and reaches the Connecticut River near South Lunenburg, Vermont.

Soils

The dominant upland soil associations are the Sunapee – Moosilauke - Monadnock Association and the Peacham – Ossipee - Pillsbury Association. Both associations are very stony and have sandy loam parent material. The Sunapee – Moosilauke - Monadnock Association is looser and better drained than the Peacham – Ossipee – Pillsbury. The Pondicherry soils consists of very deep, very poorly drained soils in depressions on outwash plains, lake plains, and glaciated uplands. Pondicherry soils have developed in herbaceous organic deposits and are underlain by sandy textured sediments. Slopes range from zero to two percent.

Land Use

Approximately 34 percent of Coos County is protected in some form (fee title or easement) for conservation purposes (<http://www.granit.sr.unh.edu>). These lands are held by local municipalities, private conservation organizations, state and federal agencies, and private individuals. Jefferson and Whitefield have approximately 9,136 acres and 2,718 acres in conservation land, respectively.

Cultural Resources

After the glacial lake drained, the Israel River Valley was slowly re-occupied by a variety of plant and animal species. Humans moved into the area approximately 11,000 years ago.

Evidence of prehistoric and historic occupation has been found on the banks of Cherry Pond. Preliminary analysis of test pits suggests humans used the area some time during the Woodland era (500 B.C. to 900 A.D.). Local habitats offered prehistoric natives an abundance of food resources including waterfowl, fish, mammals, vegetation, berries, and nuts. In addition, the clay deposits around the ponds may have provided the raw material for pottery. Refuge staff are working with the Friends of Pondicherry to expand the archeological sampling to other parts of the Refuge.

C. Habitats

The current vegetation in and around the Pondicherry Division reflects the geology, soils, climate, and human and natural disturbance histories. Plant inventories of the Pondicherry area have documented 20 species of trees, 33 species of shrubs, and 100 species of herbaceous plants and seven major vegetative communities.

Northern Hardwood-Spruce/Fir

Transitional between Beech-Birch-Maple and Lowland Spruce-Fir this community is highly variable in species composition. Management and disturbance history have had an effect on composition and it is difficult to predict the relative dominance of individual species in the future. This community occurs on upland, mesic soils on the hills above the wetlands.

Dominant hardwoods in this community are yellow birch and red maple in the later stages and pin cherry, white birch, and quaking aspen in early stages. Among conifers, balsam fir is more prevalent than red spruce and white pine. Along the stream banks there are occasional white spruce. An interesting member of the canopy is black cherry. The cherry and white pine almost certainly colonized the upland slopes following forest fires that swept the area in 1903. Balsam poplar is also scattered among the canopy. Given the prevalence of timber harvesting in the area, few of the trees in this natural community are older than 100 years. The shrub layer is dominated by wild raisin, meadow-sweet, shadbush, and raspberry. Herbs include bracken fern, wild sarsaparilla, wood aster, twisted stalk, bunchberry, blue-bead lily, starflower, goldthread, and haircap moss.

Hardwood/Conifer Seepage Swamp

This is a forested wetland found between the uplands and ponds and is distinguished by the prevalence of black ash. The canopy in the hardwood-conifer seepage swamp is from 15 to 50 feet tall, whereas the canopy in the lakeside swamp is less than ten feet and dominated by speckled alder and sweetgale. The largest block of hardwood-conifer seepage swamp is on the southern edge of Pondicherry where the water level is elevated by the railroad bed.

Because it receives nutrient input from water seepage, this community is more enriched than the black spruce-tamarack swamps. The canopy dominants are black ash, red maple, American elm, balsam fir, red spruce, and yellow birch. Shrubs include meadow-sweet, mountain holly, and winterberry holly. Dominant herbs are sensitive fern, cinnamon fern, ostrich fern, sphagnum moss, dwarf raspberry, sedges, and goldthread. Purple fringed orchid was common in this community as well.

Streamside/Lakeside

This habitat is intermixed with the lakeside swamp and the acidic fen, depending on parent material and water level. It can be found along the stream which feeds into Cherry Pond. This community is characterized by grasses, sedges, and rushes. Marshes at Pondicherry are found on mineral or shallow organic soil next to open water. Floating in

Cherry Pond are several small islands which have marsh vegetation. Dominant vegetation varies with average water depth. In the deepest water, emergent vegetation such as cattail and pickerelweed and floating vegetation such as arrow arum, white water lily, and yellow pond-lily dominate. In shallower water, blue-joint, tussock sedge, lake sedge, wool-grass, blue flag and tall meadow rue dominate.

Streamside/Lakeside Swamp

This wetland community intergrades with the streamside/lakeside marsh and acidic fen. An example is found along the John's River between Cherry and Little Cherry ponds. It is characterized by a prevalence of speckled alder and sweetgale, intermixed with various sedges. This community may succeed to a bog mat as organic material accumulates and plant roots no longer reach the mineral soil.

Shrub Swamp

This community resembles the previous one in its dominant plants, but differs in landscape position. Most examples are found adjacent to the railroad beds. It may be an early successional variant of the hardwood/conifer seep swamp, but lacks the black ash and red maple canopy. Speckled alder is the dominant shrub. Common herbs include sensitive fern, jewelweed, and several sedge species.

Boreal/Transition Acidic Fen

This fen is found on organic pond shore mats, such as Cherry and Little Cherry ponds where the peat has filled in above the water level. The pond shore mats are somewhat more enriched than typical boreal basin bogs, and therefore tend toward fens. Several feet of peat have accumulated and the water rarely overtops the bog mats. Dominant plants include leatherleaf, Labrador tea, sundew, pitcher plant, sheep laurel, bog laurel, bog cranberry, various species of sphagnum moss, bog rosemary, and cotton grass. The mats near the "Deadwater" have rose pogonia and swamp rose.

Black Spruce-Larch Basin Swamp

Black spruce and larch grow in the peat-filled basins that are vestigial kettle ponds, such as south of Mud Pond. It intergrades with the acidic fen, and is likely a later successional stage on the same landscape position. Black spruce and larch are the canopy dominants. White cedar is an occasional member of this community. Common shrubs are mountain holly, creeping snowberry, and velvet-leaved blueberry. Dominant herbs are goldthread, sphagnum moss, and three-seeded sedge.

Wetlands

Pondicherry includes a variety of wetlands that include a high quality complex of bogs, streams, ponds, and a variety of northern forest wetlands surrounded by a spruce and fir boreal forest.

D. Wildlife

The Pondicherry area is comprised of a rich northern forest landscape which provides important habitat for over 300 confirmed species of animals. No federally listed wildlife are known to reside on the Refuge.

Birds

A total of 236 species of birds have been documented in the Pondicherry area and 131 species are confirmed as breeders. The Refuge is the Atlantic Northern Forest Bird Conservation Region (BCR 14). Pondicherry was recognized for its importance to birds when it was designated New Hampshire's first Important Bird Area in 2005.

The Refuge is particularly well known for the large numbers of breeding wood warblers (22 species), boreal species (including boreal chickadees, black-backed woodpeckers, and gray jays), and a variety of breeding and migrating waterfowl.

Other Wildlife

In addition to the abundance of birds, Pondicherry is home to 41 species of mammals, 20 species of reptiles and amphibians, and 17 fish species. The large number of species in a relatively small area is due to the diversity of high quality habitats, including ponds, river, emergent wetlands, boreal forests, early succession, and scrub/shrub.

Threatened and Endangered Species

There are no documented cases of federal threatened and endangered species breeding or residing within the study area; however, transient bald eagle have been documented using the Pondicherry area during migration and the summer. There also have been recent confirmations of Canada lynx near Randolph, NH (about nine miles), and Victory, VT (about 13 miles), but none on the Refuge. Bobcats, the closest relative to lynx, are protected in New Hampshire and cannot be hunted or trapped.

Invasive Species

Five invasive plant species have been identified at Pondicherry: purple loosestrife (primarily on the margins of wetlands and the John's River), spotted knapweed (on the railroad bed near Waumbek Junction), Japanese knotweed (along the southeastern boundary, adjacent to State Route 115), Canada thistle (scattered, especially in old logging areas), and Morrow's honeysuckle (near Waumbek Junction). The infestations are relatively small in size and the primary control efforts have been hand removal by volunteers. In addition, *Gallerucella* beetles were introduced in 2006 as a control measure on purple loosestrife and the Refuge is working with the State of New Hampshire to design an effective treatment regime for Japanese knotweed which is a relatively new invader, but has the potential to severely impact native habitats.

E. Human Environment

Based on recent census data the population of Coos County appears to have dropped while Jefferson and Whitefield, New Hampshire have increased slightly. Both towns are rural and this characteristic is not expected to change in the foreseeable future.

Table 1: Population between the last two censuses (U.S. Census Bureau, <http://quickfacts.census.gov>)

| | 1990 Census | 2000 Census | %Change |
|-------------|-------------|-------------|---------|
| Coos County | 34,828 | 33,111 | -4.9 |
| Jefferson | 965 | 1,006 | 4.2 |
| Whitefield | 1,909 | 2,038 | 6.7 |

Economic Base

The hardwood pulpwood industry in the region, particularly in New Hampshire, has been on the decline for many years. Although forest products continue to be an important component of the economy of Coos County, service sectors also are important income generators. As displayed in Table 2, the economies of Jefferson and Whitefield are relatively balanced across four sectors.

Table 2. Local Employer Sectors (U.S. Census Bureau, <http://quickfacts.census.gov>)

| Employment Sector | Percent of Employment Jefferson | Percent of Employment Whitefield | Percent of Employment Coos County |
|---|---------------------------------|----------------------------------|-----------------------------------|
| Retail | 9.6 | 17.3 | 14.5 |
| Manufacturing | 13.7 | 16.8 | 21.8 |
| Recreation, Accommodations, & Food Services | 11.8 | 14.2 | 9.9 |
| Education | 19.7 | 15.7 | 20.5 |

The most apparent natural resources in Coos County are the expansive forests. In fact, nearly 95 percent of the county land base is tree covered. The paper industry was the most significant component of the economy since the late 19th Century. Although there has been a noticeable contraction in the last decade with the closing of some mills and divestiture of timber lands by corporations, forest products are still important to local communities in the county.

Outdoor recreation and the infrastructure to support it also are important contributors to the local economy. Coos County, known as the “Great North Woods”, is well-known for its rugged and remote character. People come to the region throughout the year to participate in activities such as hunting, fishing, camping, hiking, canoeing/kayaking, snowmobiling, skiing, and driving the scenic roads. Hotels, restaurants, and the associated service industry all benefit from the infusion of tourism dollars. Today the economy is a reflection of the rural, sparsely populated nature of the county. Manufacturing, typically on a small scale, along with retail sales, education, and service-related industries are the principal employers in Coos County and more specifically Jefferson and Whitefield. The median income in Jefferson (\$42,067) and Whitefield (\$41,528) are somewhat higher than for Coos County ((\$35,201) as a whole.

IV. Environmental Consequences

A. Effects Common to all Alternatives

1. Environmental Justice

Executive Order 12898 “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations” was signed by President Bill Clinton on February 11, 1994, to focus federal attention on the environmental and human health conditions of minority and low-income populations with the goal of achieving environmental protection for all communities. The Order directed federal agencies to develop environmental justice strategies to aid in identifying and addressing disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations. The Order is also intended to promote nondiscrimination in federal programs substantially affecting human health and the environment, and to provide minority and low-income communities access to public information and participation in matters relating to human health or the environment. This assessment has not identified any adverse or beneficial effects for either alternative unique to minority or low-income populations in the affected area. None of the alternatives will disproportionately place any adverse environmental, economic, social, nor health impacts on minority or low-income populations.

2. Public Health and Safety

Each alternative would have minimal to negligible effects on human health and safety. Appropriate safety considerations have been included and are discussed in the two action alternatives.

3. Refuge Physical Environment

Impacts of each alternative on the Refuge physical environment would have similar, minimal to negligible, effects. Some disturbance to surface soils, topography, and vegetation would occur in areas selected for hunting; however effects would be minimal because hunters access the Refuge by foot or by snowmobiles during the winter which must stay on the designated Powerline Trail or State rail-trail (Figure 2). Hunters tend to stay on hardened old logging roads, rather than bushwhack through the dense understory vegetation. Hunting would benefit vegetation as it is used to keep many resident wildlife populations in balance with the habitat’s carrying capacity.

Hunter impacts to the natural hydrology would be negligible. The Refuge expects impacts to air and water quality to be minimal and only due to visitors using snowmobiles on the Powerline Trail and the State’s Presidential Range Rail-Trail. Motorized vehicles are not allowed on the Refuge other than the visitor parking lot on State Route 116. The effect of hunting activities on overall air and water quality in the

region are anticipated to be relatively negligible. Existing State water quality criteria and use classifications are adequate to achieve desired on-refuge conditions; thus, implementation of the proposed action would not impact adjacent landowners or users beyond the constraints already implemented under existing State standards and laws.

Impacts associated with solitude are expected to be minimal given the limited number of hunters using the Refuge and the fact that most hunting occurs away from the primary access route on the state rail-trail and the areas most frequented by hikers (i.e. Cherry Pond, Little Cherry Pond, and the corridor containing the Little Cherry Pond Loop Trail are posted closed to hunting).

4. Cultural Resources

Under each alternative, hunting, regardless of the method or species targeted, will not pose a threat to cultural resources. There are no historic buildings or other obvious cultural resources on the Refuge that would be readily susceptible to impacts from hunting.

5. Facilities

Currently, the only facilities at the Pondicherry Division are a parking lot, two primitive hiking trails, and an informational kiosk. Maintenance or improvement may cause short term impacts to soils and surface water, may disturb wildlife, and damage vegetation in the immediate area, but will have negligible impacts to the Refuge as a whole. The frequency and extent of maintenance and improvement is not expected to differ from that required to support other public uses.

B. Summary of Effects

1. Impacts to Habitat

Alternative 1 – No Action Alternative

Under this alternative the Pondicherry Division would not be open to any form of recreational hunting. Big game populations have been managed at sustainable levels by the state for many years. Forage is abundant for herbivores such as deer, moose, and snowshoe hares in the many regenerating forest stands that were harvested in the past decade. To date, there is no obvious evidence of overbrowsing in the forest regeneration. Moose are known to retard conifer regeneration in other areas of Coos County, although this has not been observed at Pondicherry. White-tailed deer and snowshoe hares also can impact forest regeneration, if their numbers get too high. Snowshoe hares have the potential to overpopulate in the absence of hunting and cause habitat degradation because of their high fecundity rate. Under this alternative, recreational hunting would not be used as a management tool to moderate wildlife numbers on the Refuge.

Most waterfowl in the area during the hunting season are migrants moving south for the winter. There would be no impacts to habitat in the absence of waterfowl hunting.

Vegetation impacts, such as trampling, would not be caused by hunters walking cross country; however, visitors engaged in other compatible, wildlife-dependent recreation, such as wildlife observation, would continue to cause similar, but minimal impacts. Annual snowshoe hare harvests should help moderate large population fluctuations that could impact habitats.

Alternative 2 - Proposed Action

Under this alternative, managers have the tools available to address overbrowsing, should it become an issue in the future. Pondicherry represents a small portion of Wildlife Management Units (Unit) D and D1, but by managing populations within their carrying capacities at these larger scales, impacts to local habitats from herbivory should remain minimal, as evidenced by recent history.

2. Impacts to Hunted Wildlife

Alternative 1 – No Action

Mortality from hunting on the Refuge would not occur under this alternative. Disturbance to game species would not be caused by hunters; however, other there would continue to be disturbance from other users groups (e.g. wildlife observation and photography, environmental education and interpretation).

It is unlikely that moose or bear numbers on the Refuge would change in the absence of hunting because the Refuge is relatively small with respect to their home ranges and the state population objectives for Wildlife Management Unit D1 are to remain at current levels. White-tailed deer numbers are slated to increase about 43 percent (additional 237) during the next decade in Wildlife Management Unit D (New Hampshire Fish and Game Department 2005). Because Pondicherry only comprises about one percent of this unit, it is unlikely that there would be a discernable change on the Refuge.

Small game on the Refuge could increase more substantially, either through reduced mortality without hunting and/or immigration from the surrounding area. Species such as snowshoe hares and coyotes have the capacity to increase numbers in a short amount of time if mortality is reduced. Higher numbers can result in increased incidence of diseases (e.g. rabies) and habitat degradation. There would be limited options available for managers to keep game populations within acceptable ranges.

Alternative 2 – Proposed Action

Hunting would inflict mortality on game species at Pondicherry; however, little to no effect on the larger population of the Wildlife Management Unit or within the State of

New Hampshire is expected. White-tailed deer are adept at using cover to evade hunters, and the Pondicherry division has a thick shrub/sapling layer that interferes with sight distances. The powerline corridor is one of the better areas to hunt deer because of the good visibility; however, this only comprises about two percent of the Refuge. Elsewhere hunting is generally along old logging roads and the Colonel Whipple Trail which have good, adjacent hiding cover, making success difficult.

Based on the latest small game survey, hunters in this part of the state concentrate on ruffed grouse, snowshoe hares, and American woodcock (New Hampshire Fish and Game Department 2006b). Undoubtedly, there may be some incidental hunting of raccoons, coyotes, beaver, or other small game under the state regulations, but effort is likely much smaller than that for the more popular species.

There has only been limited waterfowl hunting on what is now the Pondicherry Division in the past. Cherry and Little Cherry ponds have been closed to all hunting since the early 1960s leaving only the John's River and Moorhen Marsh available for hunting (Figure 4). Moorhen Marsh is more than one and a half miles from the closest parking area and access is limited to foot traffic, except during the last two or three days of the late season when hunters could use snowmobiles to get to the marsh. This would only happen if there is sufficient snow cover to open the snowmobile trails in the area. The John's River on the Refuge has limited suitability for waterfowl hunting because it is difficult to float due to numerous beaver dams and is not easily accessible from a road or parking lot. Consequently, there has been minimal waterfowl hunting in the past, although the area was available for hunting. Based on anecdotal information from the Friends of Pondicherry no waterfowl hunting has occurred since the Refuge was established in 2000. Hunting pressure is expected to remain light in the future; however, this alternative will give people a high quality area with good habitat and limited use by other hunters.

3. Impacts to Non-hunted Wildlife

Alternative 1 – No Action

There could be some indirect effects such as habitat degradation from higher snowshoe hare numbers or increases in predation on small mammals and ground nesting birds if coyote numbers rise. The magnitude of the increase and therefore, the effects are difficult to predict because populations of these two species fluctuate naturally.

Hunters would not disturb nongame wildlife while in the field; however, there would continue to be disturbance from other Refuge visitors engaged in other wildlife-dependent priority public uses (i.e. wildlife observation and photography, environmental education and interpretation).

Alternative 2 – Proposed Action

Small game popular with hunters, particularly snowshoe hare and possibly coyote, would be lower than in Alternative 1. Effects on habitat by hare and prey by coyotes may be reduced somewhat.

Disturbance to non-hunted wildlife would increase slightly, but many species are less active during the hunting seasons due to the colder temperatures. The most popular hunting seasons begin in October and November when average daily temperatures are below 40 degrees F. Many of the migratory birds have left the area for southern wintering grounds. Bats have either migrated south or found winter shelter in hibernacula. Cold blooded reptiles, amphibians, and most invertebrates are less active in the cooler weather. Hunter presence would have little to no effect on these species. Although no quantitative estimates of hunting pressure is available, the hunter density probably rarely exceeds one per 500 acres. Access is somewhat limited by the number of developed access points (two) and the prohibition of motorized vehicles. Most hunters walk on the network of old logging roads because traversing through the thick underbrush is difficult the chance of seeing game is limited by short sight distances. This pattern of use by hunters on the old logging roads limits the area of disturbance considerably, and makes it similar in extent to that of other Refuge visitors.

4. Impacts to Threatened and Endangered Species

Alternative 1 – No Action

There would be no effect on threatened or endangered species from this alternative.

Alternative 2 – Proposed Action

Transient bald eagles would not be affected by this alternative because the birds are not residents or breeders, and do not stay at the Refuge. Canada lynx would not be affected because they are not known to be on the Refuge, and the only species they could be mistaken for are bobcats, a fully protected animal in New Hampshire. A Section 7 consultation was completed for the hunting program at the Pondicherry Division, with a No Effect determination.

5. Impacts to Refuge Facilities

Alternative 1 – No Action

There would be no additional use of the parking lot on Route 116, nor use of trails under the No Action Alternative. Use by other Refuge visitors would continue, requiring normal periodic maintenance.

Alternative 2 – Proposed Action

An increase in the number of people using the Refuge parking lot would be expected; however, the magnitude would not require additional maintenance. Because the Refuge can only be accessed by foot or snowmobiles, as previously discussed, no additional impacts to Refuge facilities or expenditures would be anticipated.

6. Impacts to Wildlife Dependant Recreation

Alternative 1 – No Action

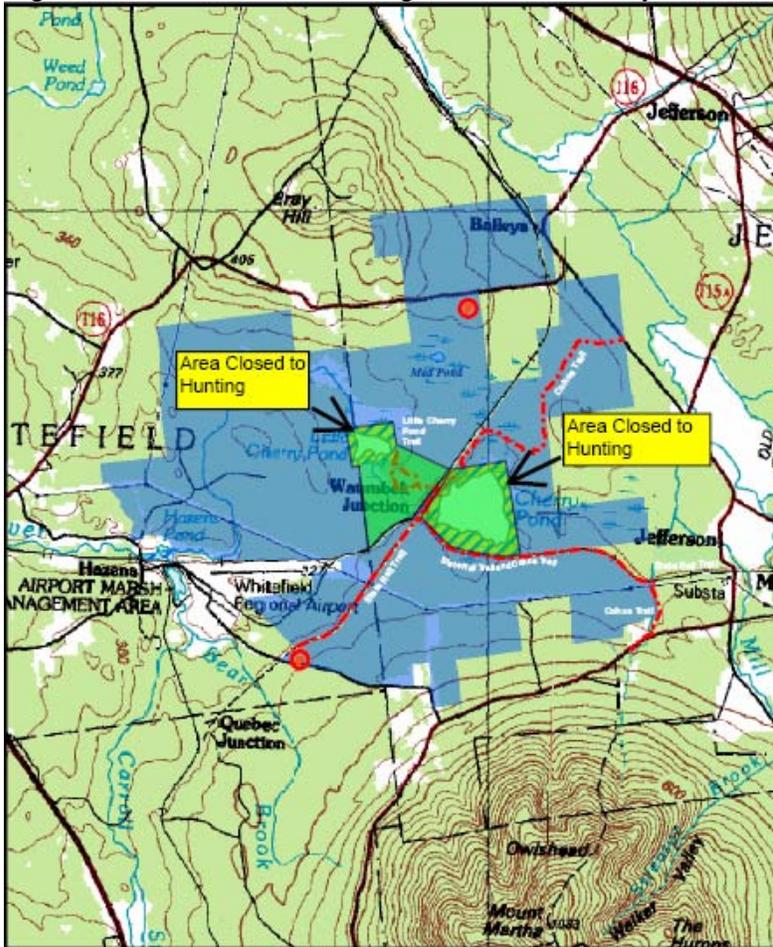
The public would not have the opportunity to harvest a renewable resource, participate in wildlife-oriented recreation that is compatible with the purposes for which the refuge was established, have an increased awareness of the Pondicherry Division, Silvio O. Conte National Fish and Wildlife Refuge, and the National Wildlife Refuge System; nor would the Service be meeting public use demand. Public relations would not be enhanced in the local community, nor with the New Hampshire Fish and Game Department.

Alternative 2 – Proposed Action

Increased use by hunters could result in unanticipated conflicts between user groups. However, hunters and non-hunters have coexisted on this property for decades. Bird watchers, photographers, and day hikers have been walking out to scenic Cherry Pond for many years without chronic conflicts with hunters. Cherry and Little Cherry ponds and their immediate shorelines have been closed to hunting since the 1960s. There is a popular developed trail connecting the two ponds. The corridor containing this trail would be closed to hunting via signage to minimize potential conflicts (Figure 4). The entire Refuge would remain open for wildlife observation and photography, interpretation and environmental education throughout the year, including the hunting season.

The public would be allowed to harvest a renewable resource, and the refuge would be promoting a wildlife-oriented recreational opportunity that is compatible with the purpose for which the refuge was established. The public would have an increased awareness of the Pondicherry Division, the Silvio O. Conte National Fish and Wildlife Refuge, and the National Wildlife Refuge System. Hunters have been hunting this land for years and their desires to continue hunting there would be met. The public would also have the opportunity to harvest a renewable resource in a traditional manner, which is culturally important to the local community. This alternative would provide youth with the opportunity to learn a wildlife-dependant recreation on a National Wildlife Refuge, instill an appreciation for and understanding of wildlife, the natural world and the environment, and promote a land ethic and environmental awareness.

Figure 4. Area closed to hunting at the Pondicherry Division.



C. Cumulative Effects Analysis

1. Anticipated Direct and Indirect Impacts of Proposed Action on Wildlife Species

Alternative 1 – No Action

No direct or indirect impacts would be anticipated under this alternative because there would be no hunting of game species at the Pondicherry Division.

Alternative 2 – Proposed Action

Migratory Birds

Alternative 2 – Proposed Action

The U.S. Fish and Wildlife Service annually prescribes frameworks, or outer limits, for dates and times when hunting may occur and the number of birds that may be taken and

possessed. These frameworks are necessary to allow State selections of season and limits for recreation and sustenance; aid Federal, State, and tribal governments in the management of migratory game birds; and permit harvests at levels compatible with population status and habitat conditions. Because the Migratory Bird Treaty Act stipulates that all hunting seasons for migratory game birds are closed unless specifically opened by the Secretary of the Interior, the Service annually promulgates regulations (50 CFR Part 20) establishing the frameworks from which States may select season dates, bag limits, shooting hours, and other options for the each migratory bird hunting season. The frameworks are essentially permissive in that hunting of migratory birds would not be permitted without them. Thus, in effect, Federal annual regulations both allow and limit the hunting of migratory birds.

Migratory game birds are those bird species so designated in conventions between the United States and several foreign nations for the protection and management of these birds. Under the Migratory Bird Treaty Act (16 U.S.C. 703-712), the Secretary of the Interior is authorized to determine when "hunting, taking, capture, killing, possession, sale, purchase, shipment, transportation, carriage, or export of any ... bird, or any part, nest, or egg" of migratory game birds can take place, and to adopt regulations for this purpose. These regulations are written after giving due regard to "the zones of temperature and to the distribution, abundance, economic value, breeding habits, and times and lines of migratory flight of such birds, and are updated annually (16 U.S.C. 704(a)). This responsibility has been delegated to the U.S. Fish and Wildlife Service as the lead federal agency for managing and conserving migratory birds in the United States. Acknowledging regional differences in hunting conditions, the Service has administratively divided the nation into four Flyways for the primary purpose of managing migratory game birds. Each Flyway (Atlantic, Mississippi, Central, and Pacific) has a Flyway Council, a formal organization generally composed of one member from each State and Province in that Flyway. The Pondicherry Division is in the Atlantic Flyway.

The process for adopting migratory game bird hunting regulations, located in 50 CFR part 20, is constrained by three primary factors. Legal and administrative considerations dictate how long the rule making process will last. Most importantly, however, the biological cycle of migratory game birds controls the timing of data-gathering activities and thus the dates on which these results are available for consideration and deliberation. The process of adopting migratory game bird hunting regulations includes two separate regulations-development schedules, based on "early" and "late" hunting season regulations. Early hunting seasons pertain to all migratory game bird species in Alaska, Hawaii, Puerto Rico, and the Virgin Islands; migratory game birds other than waterfowl (e.g. dove, woodcock, etc.); and special early waterfowl seasons, such as teal or resident Canada geese. Early hunting seasons generally begin prior to October 1. Late hunting seasons generally start on or after October 1 and include most waterfowl seasons not already established. There are basically no differences in the processes for establishing either early or late hunting seasons. For each cycle, Service biologists and others gather, analyze, and interpret biological survey data and provide this information to all those involved in the process through a series of published status reports and presentations to

Flyway Councils and other interested parties (U.S. Fish and Wildlife Service 2006). Historically, before the Refuge was established there was little, if any, waterfowl hunting at Pondicherry. The best waterfowl habitats are found in Cherry and Little Cherry ponds, but both have been closed to hunting since the 1960s when the Audubon sanctuary was established. Under the proposed action, the Refuge estimates an additional 56 ducks (based on 10 hunters per year, harvesting the New Hampshire average of 5.6 ducks) and 27 Canada geese (based on 10 hunters per year, harvesting the New Hampshire average of 2.6 geese) would be harvested each year. Because there is no history of waterfowl hunting, the number of hunters is an approximation based on one hunter per week during the seven-week split season and rounding up to ten. One hunter per week was used because prior to the Refuge acquiring the property with Moorhen Marsh, few, if any, people hunted waterfowl there, even though the previous landowner allowed hunter access (personal communication, David Govatski). This is probably an overestimate of the number of hunters because they must walk in 1.5 miles on the state rail-trail to get to Moorhen Marsh. This harvest impact represents 0.3% and 0.5% respectively of New Hampshire's four-year average harvest of 16,240 ducks and 5,050 geese (U.S. Fish and Wildlife Service 2005).

Because the Service is required to take abundance of migratory birds and other factors into consideration, the Service undertakes a number of surveys throughout the year in conjunction with the Canadian Wildlife Service, State and Provincial wildlife-management agencies, and others. To determine the appropriate frameworks for each species, the Service considers factors such as population size and trend, geographical distribution, annual breeding effort, the condition of breeding and wintering habitat, the number of hunters, and the anticipated harvest. After frameworks are established for season lengths, bag limits, and areas for migratory game bird hunting, migratory game bird management becomes a cooperative effort of State and Federal Governments. After Service establishment of final frameworks for hunting seasons, the States may select season dates, bag limits, and other regulatory options for the hunting seasons. States may always be more conservative in their selections than the Federal frameworks but never more liberal. Season dates and bag limits for National Wildlife Refuges open to hunting are never longer or larger than the State regulations. In fact, based upon the findings of an environmental assessment developed when a National Wildlife Refuge opens a new hunting activity, season dates and bag limits may be more restrictive than the State allows. At the Pondicherry Division, season length and bag limits would coincide with New Hampshire's.

National Environmental Policy Act (NEPA) considerations by the Service for hunted migratory game bird species are addressed by the programmatic document, "Final Supplemental Environmental Impact Statement: Issuance of Annual Regulations Permitting the Sport Hunting of Migratory Birds (FSES 88- 14)," filed with the Environmental Protection Agency on June 9, 1988. We published Notice of Availability in the Federal Register on June 16, 1988 (53 FR 22582), and our Record of Decision on August 18, 1988 (53 FR 31341). Annual NEPA considerations for waterfowl hunting frameworks are covered under a separate Environmental Assessment, "Duck Hunting Regulations for 2006-07," and an August 24, 2006, Finding of No Significant Impact.

Further, in a notice published in the September 8, 2005, Federal Register (70 FR 53376), the Service announced its intent to develop a new Supplemental Environmental Impact Statement for the migratory bird hunting program. Public scoping meetings were held in the spring of 2006, as announced in a March 9, 2006, Federal Register notice (71 FR 12216). More information may be obtained from: Chief, Division of Migratory Bird Management, U.S. Fish and Wildlife Service, Department of the Interior, MS MBSP-4107-ARLSQ, 1849 C Street, NWR, Washington, DC 20240.

Although American woodcock are showing declines in numbers on their breeding grounds, habitat loss is considered to be the culprit, not hunting. This assertion was tested in a study conducted by the U.S. Geological Patuxent Wildlife Research Center in 2005 (McAuley *et al.* 2005). Results showed no significant differences in woodcock survival between hunted and non-hunted areas. Furthermore, the authors concluded that hunting was not having a considerable impact on woodcock numbers in the Northeast (McAuley *et al.* 2005).

An estimated 4,100 woodcock were harvested in the 2005/06 season in the New Hampshire. This represented less than 0.01% of the estimated 4.6 million North American woodcock population. The woodcock habitat on the Pondicherry Division is primarily found in the early succession forests, particularly those with alders. Woodcock are typically not sought specifically by hunters, but rather are taken while hunting other game, particularly ruffed grouse which are often found in similar habitats. Although harvest numbers are not available, based on the 30-day season it is estimated that between 30 and 60 woodcock are harvested at Pondicherry in a year. Regardless of the exact number taken from the Refuge each year, the regional population has not been detrimentally affected by this hunt, as evidenced by the New Hampshire Fish and Game Department annual woodcock singing ground surveys. Based on data from these surveys the Department considers woodcock populations in the northern part of the state, which includes Pondicherry, to be relatively strong (New Hampshire Fish and Game Department 2006b). The small number of woodcock that would be taken under the proposed action should have no adverse cumulative effects on their local, regional or flyway populations.

Resident Big Game

The New Hampshire Fish and Game Department (Department) recently adopted a new statewide 10-year big game management plan (New Hampshire Fish and Game Department 2005). A public working group was assembled and with the assistance of Department technical representatives to developed statewide and local population objectives based on habitat capability and societal tolerances over the course of ten months. The Department provided the group with individual species assessments that were based on population monitoring and harvest data from the previous decade. The resultant plan identifies local population objectives that are both sustainable and acceptable to the public. Table 3 indicates that the long-term moose and black bear populations in the Pondicherry region are stable under regulated hunting and should remain that way during the next decade. White-tailed deer numbers were held below

objectives under New Hampshire’s previous plan, but are now scheduled to move toward a higher objective. This higher objective is sustainable based on habitat conditions and the public’s desire for more and larger deer. Under this plan the Department is using scientifically-based management, including regulated hunting and annual monitoring to achieve the objectives.

The Pondicherry Division is located in Wildlife Management Unit (WMU) D (white-tailed deer) and D1 (moose and black bear). The Department has the ability to manage populations of these species, in part, through recreational hunting because these animals have a “k-selection population strategy.” This means that reproductive rates are low, adults invest a tremendous amount of energy bringing young to maturity, and survival rates are relatively high compared to more prolific breeders (e.g. snowshoe hares). Based on their monitoring programs, the Department adjusts hunting levels in terms of season length, sex ratio in the harvest, and number of hunters (tag availability) to move population levels toward desired objectives. Of course, other factors such as disease, severe weather, predation, and automobile collisions influence mortality, but these are taken into account by the annual monitoring.

Although classified as a big game animal, wild turkey management differs substantially from the other species because this bird has a “r-selection population strategy,” more like small game. Turkeys produce numerous offspring each year, adults invest less energy in raising them, and the young have a low survival rate. Their populations can fluctuate dramatically year to year depending on the current conditions, particularly weather. The Refuge does not offer ideal turkey habitat because the young, regenerating forests do not provide much food (i.e. seed) or roosting sites, and there are few small meadows for courtship, other than the powerline corridor. However, turkeys are present in the area and the Refuge does provide some limited hunting opportunities.

Table 3. Current New Hampshire population objective for three big game species in Wildlife Management Unit D (or D1) (New Hampshire Fish and Game Department 2005).

| Species | Current Population or Monitoring Index | Wildlife Management Unit Objectives 1997-2005 | Wildlife Management Unit Objectives 2006-2015 | Proposed Change from Proposed Population Level Change |
|-------------------|--|---|---|---|
| White-tailed Deer | 553 ¹ | 788 | 790 | +237 |
| Moose | 6.35 ² | 8.63 | 6.0 | No Change |
| Black Bear | 0.63 ³ | 0.56 | 0.6 | No Change |
| Wild Turkey | 0.53 ⁴ | No Objective | 0.50 | No Change |

¹ Adult buck harvest (1.5 years and older)k during the fall hunt season.

² Number of moose seen per 100 hunter hours from the deer hunter mail survey.

³ Bear density per square mile.

⁴ Two-year average of spring turkey kills per square mile.

Table 4. Projected big game harvest at the Pondicherry Division based on New Hampshire Harvest Summary for 2005 (New Hampshire Fish and Game Department 2006a).

| Species | Wildlife Management Unit Harvest per square mile | Projected Harvest at the Pondicherry Division |
|-------------------------|--|---|
| White-tailed Deer | 1.44 | 12 ¹ |
| Black Bear ² | 0.14 | <1 |
| Moose ³ | 0.05 | <1 |
| Turkey | 0.18 | 1 |

¹ This number is likely higher than actual for the Refuge because no motorized vehicles are allowed on the Refuge, limiting access to hunters on foot.

^{2,3} Based on the total kill and square mileage for both WMU D1 and D2

White-tailed Deer

White-tailed deer are managed within a Wildlife Management Unit (WMU), as previously described. The Refuge is located in WMU D, which has a ten-year objective of increasing the herd to sustain an annual increase of adult buck harvest by 237 animals. Deer hunting at Pondicherry can occur anywhere on the Refuge, except for the closed areas around the two large ponds and the Little Cherry Pond Trail corridor (Figure 4). The most frequently hunted areas are the powerline corridor and old logging roads, because the edge habitats attract feeding deer and sight distances are much better than in the forest.

The estimated number of deer harvested is likely higher than actual, but this figure will be used to evaluate effects. The state's deer population is estimated to be 77,000, which is projected to approach 98,000 under their new ten-year plan (New Hampshire Fish and Game Department 2005). There are no good estimates for the number of deer on the Refuge, but the real value varies depending on individual home ranges, weather, time of year, etc. Assuming 12 deer are harvested on the Refuge in a year, this represents about 1 percent of the 950 taken in WMU D and 0.1 percent of the statewide harvest of 10,595 (New Hampshire Fish and Game Department 2006b). Twelve deer make up about 0.01 percent of the current deer population in New Hampshire. Opening the Refuge to white-tailed deer hunting should not have negative cumulative impacts on the local herds or the statewide population.

Moose

Pondicherry is located in moose WMU D1. The ten-year objective is to keep moose populations at their current levels. Moose hunting at Pondicherry can occur anywhere on the Refuge, except for the closed areas around the two large ponds and the Little Cherry Pond Trail corridor (Figure 4). Some of the better habitats are located in the closed area, but moose can be found anywhere on the Refuge.

The current statewide population is estimated to be 6,400 moose (New Hampshire Fish

and Game Department 2005). Two WMUs are identified for reduced numbers during the next decade, primarily because of concern with the number moose-automobile accidents, but the objective for WMU D1 is to remain at current levels. Using the harvest rates in Table 4, few or no moose are taken at the Refuge each year. This conforms to experience. One of the drawbacks to hunting moose on the Refuge is the lack of motorized access to remove a downed animal. An alternative is to use a horse to drag a harvested moose out to a public road. A special use permit is required to use a horse on the Refuge and in the past three years only one request was made. It is unknown whether that hunter was successful. In 2005, 16 moose were harvested in WMU D1 (New Hampshire Fish and Game Department 2006a). If one of those was taken on the Refuge, it would represent about six percent of the WMU total. One moose harvested per year represents less than 0.1 percent of the state population. Opening the Refuge to moose hunting should not have negative cumulative impacts on the local herds or the statewide population.

Black Bear

Statewide, black bear populations have increase 33 percent since 1990. Currently, the population is estimated to be 5,100. The Refuge is in bear WMU D1, and the objectives are to retain the existing population levels during the next decade. Bear hunting at Pondicherry can occur anywhere on the Refuge, except for the closed areas around the two large ponds and the Little Cherry Pond Trail corridor (Figure 4). Unlike other areas of the state, hunters are not allowed to hunt over bait on the Refuge. In WMU D1 30 percent of the bears were taken over bait in 2005 (New Hampshire Fish and Game Department 2006a). Thus the projected harvest level in Table 4 may be high, but it is still less than one bear per year.

One bear harvested per year would be three percent of the harvest in WMU D1 and about 0.2 percent of the statewide population. Opening the Refuge to bear hunting should not have negative cumulative impacts on the local herds or the statewide population.

Wild Turkey

Turkeys are making a comeback in New Hampshire with a statewide population estimated to be about 26,000 in 2004. This represented a ten-fold increase over the 1989 numbers. This strong growth is due to a strategy of allowing turkeys to reoccupy habitats that had been vacant for years.

Because turkeys produce abundant young that have a high susceptibility to mortality, a liberal harvest can occur without impacting the population. This has been the case in New Hampshire where regulated hunting has not impacted the dramatic increase in population over the past 15 years. Using the projected harvest levels in Table 4, one turkey per year is estimated to be taken from the Refuge each year (New Hampshire Fish and Game Department 2006a). This represents 0.7 percent of the harvest in WMU D1 and less than 0.01 percent of the state population. Considering the normal fluctuations in turkey numbers and the growing population hunting at the Pondicherry Division should not have negative cumulative impacts on either local flocks or the statewide population.

Resident Small Game

Grouse and snowshoe hare are the primary small game species sought in New Hampshire (New Hampshire Fish and Game Department 2006b), which likely holds true for Pondicherry as well. Other species such as coyotes may be taken, but the numbers are small in any single year. Small game biology differs from big game in a couple of important respects. First, like turkeys they have an “r-selection population strategy,” and secondly, their home ranges are relatively small and regional populations cannot be affected by localized hunting. Small game populations tend to be influenced by food resources, rather than hunting. When small game populations become overabundant, disease and in severe case lack of food resources cause the populations to decline, sometimes dramatically. Hunters harvest a portion of the population that would likely succumb during the winter anyway. Regulated hunting does not detrimentally affect populations of r-selected species (personal communication, Mark Ellingwood, New Hampshire Fish and Game Department). Only local effects will be discussed because hunting on the Refuge will not impact regional or state level populations.

The New Hampshire Fish and Game Department monitors small game harvest through a voluntary hunter survey. The index used to monitor population changes is the number of animals observed per 100 hours. During the past seven years, observation rates for ruffed grouse have varied from about 75 to 125 per 100 hours. In addition, the State conducts spring ruffed grouse drumming surveys and one of their routes begins in Whitefield where the Refuge is located. Drumming survey data consolidated for the “North Country” indicates the expected variability for an r-selection species. Since 1996 the average number of drumming encounters per stop has ranged from 0.40 to 0.76. For snowshoe hares the range was about 40 to 50 per 100 hours. Ruffed grouse and snowshoe hare are not detrimentally affected by the regulated hunt season at Pondicherry, based on the fact that hunting has occurred here in the past and data indicates that monitored indices have varied considerably since 1996, without any evidence of a downward trend.

Non-hunted Wildlife

Non-hunted wildlife would include non-hunted migratory birds such as songbirds, wading birds, raptors, and woodpeckers; small mammals such as voles, moles, mice, shrews, and bats; reptiles and amphibians such as snakes, skinks, turtles, lizards, salamanders, frogs and toads; and invertebrates such as butterflies, moths, other insects and spiders. Except for migratory birds and some species of migratory bats, butterflies and moths, these species have very limited home ranges and hunting could not affect their populations regionally; thus, only local effects will be discussed.

Disturbance to non-hunted migratory birds could have regional, local, and flyway effects. Regional and flyway effects would not be applicable to species that do not migrate such as most woodpeckers, and some songbirds including chickadees, nuthatches, and creepers. The cumulative effects of disturbance to non-hunted migratory birds under the proposed action are expected to be negligible for the following reasons. Hunting season would not coincide with the nesting season. Long-term future impacts that could occur if reproduction was reduced by hunting are not relevant for this reason. Hunter disturbance

to the daily activities, such as feeding and resting, might occur, but would be commensurate with that caused by visitors engaged in the other wildlife-dependent, priority public uses (i.e. wildlife observation and photography, environmental education and interpretation).

The cumulative effects of disturbance to other non-hunted species under the proposed action are expected to be negligible for the following reasons. Small mammals, including bats, are less active in the fall when hunting begins and inactive during the winter hunts. Many of these species are also nocturnal. Both of these qualities make consequential hunter interactions with small mammals a rarity. Hibernation or torpor by cold-blooded reptiles and amphibians also limits their activity during the hunting season when temperatures are low. Hunters would rarely encounter reptiles and amphibians during most of the hunting season. Encounters with reptiles and amphibians in the early fall are few and should not have cumulative negative effects on reptile and amphibian populations because the interactions would be similar to other Refuge visitors. Invertebrates are also not active during cold weather and would have few encounters with hunters during the hunting season. The refuge has estimated current hunter density to be about 1 hunter per 500 acres. During the majority of the hunting season, hunter density is probably lower. Refuge regulations further mitigate possible disturbance by hunters to non-hunted wildlife. Vehicles, except for snowmobiles on the Powerline Trail during winter, are not allowed on the Refuge and the harassment or taking of any wildlife other than the game species legal for the season is not permitted.

Ingestion of lead shot by non-hunted wildlife could be a cumulative impact, but is unlikely at the Pondicherry Division. First, all waterfowl hunters must use nontoxic shot, avoiding the possibility of lead concentration in Moorhen Marsh and the John's River. This reduces the likelihood of uptake by waterfowl and other water birds. Upland hunters may use lead shot in conformance with State regulations. These hunters cover more ground than sedentary waterfowl hunters and their shot is dispersed across the Refuge uplands rather than concentrated in a wetland. Furthermore, the number of hunters using the Refuge is relatively small. Birds or mammals may pick up lead shot, but the chances of widespread ingestion that could have a cumulative effect on populations is extremely remote.

Some species of bats, butterflies and moths are migratory. Cumulative effects to these species at the "flyway" level should be negligible. Some hunting occurs during September and October when these species are active or migrating; however, hunter interaction would be commensurate with that of other Refuge visitors. During the later seasons these species are usually in torpor or have migrated out of the area.

Threatened and Endangered Species

There are no known threatened or endangered species that inhabit the Refuge. A Section 7 Evaluation was completed for the Hunt Plan at Pondicherry with a "No Effect" determination. Bald eagles are transient, typically seen near Cherry and Little Cherry ponds, which are closed to hunting. The recent Canada lynx sightings were about nine

and 16 miles from the Refuge. The only species they could be mistaken for are bobcats, which are fully protected in New Hampshire.

Conclusion

The proposed action of allowing regulated sport hunting at the Pondicherry Division should pose no cumulative effects to migratory birds, resident big and small game, based on the population, harvest, and monitoring data. No cumulative effects are anticipated for non-hunted wildlife, or federally listed species.

2. Anticipated Direct and Indirect Impacts of Proposed Action on Refuge Programs, Facilities, and Cultural Resources

Alternative 1 – No Action

Implementing the No Action alternative would have no effect on Refuge programs, facilities, or cultural resources.

Alternative 2 – Proposed Action

Refuge Programs

As public use levels expand in the future, unanticipated conflicts between user groups may occur. The Refuge's visitor use programs would be adjusted as needed to eliminate or minimize each problem and provide quality wildlife-dependent recreational opportunities. Options include time and space zoning (e.g., establishment of separate use areas, use periods, and restrictions on the number of users) to eliminate conflicts between user groups. The Refuge already has taken a step in this direction to avoid the most obvious potential problem between hunters and other user groups. Cherry and Little Cherry ponds, owned and managed by the State, have been closed to hunting since at least the 1960s. A buffer around the Little Cherry Pond Trail, a popular National Recreation Trail connecting the two ponds, would be closed to hunting via posted "No Hunting Zone" signs, and delineated on maps provided to hunters (Figure 4). Although a portion of the Refuge is closed to hunting, the entire Refuge is open to other wildlife-dependent recreation (i.e. wildlife observation and photography, environmental education and interpretation).

Most of the recreation use within the Refuge boundary occurs on the two developed trails, the State's Presidential Range Recreation Trail, and the parking lot. Less use occurs on the old logging road network, as these are not maintained or signed. Recreationists may impact nesting birds; however, the area subject to disturbance is very small in relation to the entire 5,426-acre Refuge. The addition of hunting should have no impact on nesting birds because none of the seasons overlap, except spring turkey, and as previously discussed, few hunters pursue turkey on the Refuge. The majority of waterfowl hunting would occur at Moorhen Marsh. Hunters would have a disturbing influence where they are hunting, but just north of this marsh is the 100-acre Cherry Pond

with an emergent wetland fringe, which is closed to hunting offering water birds excellent secure habitat.

The opportunities for recreational sport hunting, a wildlife-dependent priority public use, would be available to the hunters, meeting a demand. Hunting on the Refuge would contribute to the State's wildlife management objectives and allow a traditional use to continue.

Habitat degradation related to hunting would be minimal and similar to other Refuge visitors, because access is by foot or snowmobile on the Refuge's Powerline Trail and the State rail-trail during the winter. Otherwise, no motorized vehicles are allowed on the Refuge except in the parking lot and for administrative purposes to conduct management activities.

Refuge Facilities

The Service defines facilities as: "Real property that serves a particular function(s) such as buildings, roads, utilities, water control structures, raceways, etc." Under the proposed action those facilities most utilized by hunters would be parking lots and trails.

Maintenance or improvement will cause minimal short-term impacts to localized soils and waters and may cause some wildlife disturbances and damage to vegetation. The facility maintenance and improvement activities are periodically done to accommodate daily refuge management operations and general public uses such as wildlife observation and photography. These activities are conducted infrequently on an as-needed basis, causing minimal disturbance to wildlife. Siltation barriers will be used to minimize soil erosion, and all disturbed sites will be restored to as natural a condition as possible. Should the parking lot or its access road become impassible they will be closed to vehicular use until repair work is completed.

Cultural Resources

Hunting, regardless of method or species targeted, is a consumptive activity that does not pose any threat to historic properties on and/or near the Refuge. In fact, hunting meets only one of the two criteria used to identify an "undertaking" that triggers a federal agency's need to comply with Section 106 of the National Historic Preservation Act. These criteria, which are delineated in 36 CFR Part 800, state:

- 1- an undertaking is any project, activity, or program that can alter the character or use of an archaeological or historic site located within the "area of potential effect;" and
- 2- the project, activity, or program must also be either funded, sponsored, performed, licenses, or have received assistance from the agency.

Consultation with the pertinent State Historic Preservation Office and federally recognized Tribes is, therefore, not required.

Conclusion

The proposed action of allowing regulated sport hunting at the Pondicherry Division should pose no cumulative effects to wildlife-dependent recreation, Refuge facilities, or cultural resources.

3. Anticipated Impacts of Proposed Hunt on Refuge Environment and Community

Alternative 1 – No Action

Under this alternative, there would be fewer people visiting the Refuge resulting in fewer disturbances to soil and vegetation, as described below. Hunting would not be used as a tool to manage game numbers, which could result in localized over use of forage. There would be no change in the existing air or water quality. There would be more opportunities for solitude on the Refuge in the absence of hunters, but the difference between the alternatives should not be substantial due to the limited number of hunters expected to use the Refuge.

Hunting is a traditional recreational activity in northern New Hampshire. People have hunted on what is now the Refuge for many years. The No Action alternative would deprive hunters an opportunity to engage in this priority, wildlife-dependent use, and eliminate an opportunity for the Service to make them more aware of the Pondicherry Division, Silvio O. Conte National Fish and Wildlife Refuge. This effect would be limited to hunters.

There would be no effect on adjacent lands from the No Action alternative.

Alternative 2 – Proposed Action

The refuge expects no sizeable adverse impacts of the proposed action on the refuge environment which consists of soils, vegetation, air quality, water quality and solitude. Some disturbance to surface soils and vegetation would occur in areas used by hunters; however impacts would be minimal. Hunting could be beneficial to palatable vegetation as it is used to keep many resident wildlife populations in balance with the habitat's carrying capacity. The Refuge would control hunter access (e.g. no motorized vehicles allowed on Service-owned roads) to minimize habitat degradation.

The Refuge expects impacts to air and water quality to be minimal and only due to refuge visitors' automobile use at the parking lot off State Route 116 and snowmobile use on the Powerline Trail (Figure 3). This three-mile trail provides a connection to a network of snowmobile trails in northern New Hampshire. The effect of these refuge-related activities, as well as other management activities, on overall air and water quality in the region are anticipated to be relatively negligible, compared to the contributions of industrial centers, power plants, and non-refuge vehicle traffic on nearby public roads. Existing State water quality criteria and use classifications are adequate to achieve desired on-refuge conditions; thus, implementation of the proposed action would not

impact adjacent landowners or users beyond the constraints already implemented under existing State standards and laws.

Impacts to solitude would result from encounters between hunters and other visitors and when shots are fired at game. Both would be discrete instances in time and space. Given the small number of hunters expected and the area closure around Cherry and Little Cherry ponds and the Little Cherry Pond Trail, hunting is not anticipated to compromise solitude substantially.

The refuge would work closely with State, Federal, and private partners to minimize impacts to adjacent lands and its associated natural resources; however, no indirect or direct impacts are anticipated. The newly opened hunts would result in a net gain of public hunting opportunities positively affecting the general public, nearby residents, and refuge visitors. The refuge expects a minimal increase in visitation, but any additional use will add some revenue to local communities.

Conclusion

The proposed action of allowing regulated sport hunting at the Pondicherry Division should pose no cumulative effects to the Refuge environment or the community.

4. Other Past, Present, Proposed, and Reasonably Foreseeable Hunts and Anticipated Impacts

Alternative 1 – No Action

There would be no effects from other past, present, proposed, and reasonably foreseeable hunts without a hunt program at Pondicherry.

Alternative 2 – Proposed Action

Cumulative effects on the environment result from incremental effects of a proposed action when these are added to other past, present, and reasonably foreseeable future actions. While cumulative effects may result from individually minor actions, they may, viewed as a whole, become substantial over time. The proposed hunt plan has been designed to be sustainable through time given relatively stable conditions. Changes in refuge conditions, such as sizeable increases in refuge acreage or public use, are likely to change the anticipated impacts of the current plan and would trigger a new hunt planning and assessment process.

The implementation of the proposed action described in this assessment includes actions relating to the Refuge hunt program (see Hunt Management Plan for the Pondicherry Division). These actions would have both direct and indirect effects (e.g., new site inclusion would result in increased public use, thus increasing disturbance, etc); however, the cumulative effects of these actions are not expected to be substantial.

Historic hunting on what is now the Pondicherry Division was similar to the proposed

action in season lengths, species hunted, and bag limits, because state hunting regulations were and would continue to be followed, with minor exceptions. The Refuge does not foresee any changes to the proposed action in the way of increasing the intensity of hunting in the future.

Conclusion

Based on our knowledge of other Past, Present, Proposed, and Reasonably Foreseeable Hunts and Anticipated Impacts no cumulative effects should accrue from the proposed action.

5. Anticipated Impacts if Individual Hunts are Allowed to Accumulate

Alternative 1 – No Action

There would be no impacts from the accumulation of individual hunts in the absence of a hunting program.

Alternative 2 – Proposed Action

National Wildlife Refuges, including the Pondicherry Division, conduct hunting programs within the framework of State and Federal regulations. Hunting at the Pondicherry Division is at least as restrictive as the State of New Hampshire (deer, moose, waterfowl, ruffed grouse, woodcock) and in some cases more restrictive (bear, coyote). By maintaining hunting regulations that are as, or more, restrictive than the State, individual refuges ensure that they are maintaining seasons which are supportive of management on a more regional basis. The proposed hunt plan has been reviewed and is supported by the New Hampshire Fish and Game Department. Additionally, refuges coordinate with the Department annually to maintain regulations and programs that are consistent with the State management program.

Conclusion

By conducting hunting at the Pondicherry Division within the framework of State and Federal regulations, no cumulative effects should accrue from the proposed action.

V. Consultation and Coordination with Others

The New Hampshire Fish and Game Department concurs and fully supports the regulated public hunt at the Pondicherry Division (Appendix 2). The Fish and Wildlife Service also provided an in depth review by the Regional Office personnel and staff biologists. Numerous contacts were made throughout the area of the refuge soliciting comments, views, and ideas into the development of the accompanying hunting plan.

VI. Regulatory Compliance

Visitor Services Plan

The Silvio O. Conte National Fish and Wildlife Refuge is scheduled to finish its Comprehensive Conservation Plan (CCP) near the end of 2008. Step-down plans such as the Visitor Services Plan that tier off the CCP will follow. Since 1997, when the Refuge was established, management has been guided by the Final Environmental Impact Statement (U.S. Fish and Wildlife Service 1995). This was the basis for developing the Hunt Management Plan for the Pondicherry Division. The full array of public uses was considered in the Hunt Management Plan and this Environmental Assessment.

Compatibility Determination

A Compatibility Determination for hunting at the Pondicherry Division has been completed.

National Environmental Policy Act Documentation

This Environmental Assessment meets the NEPA requirements.

Endangered Species Act Section 7 Evaluation

A Section 7 Evaluation was completed for the Hunt Management Plan at the Pondicherry Division.

Copies of Letters requesting State and, where appropriate, tribal involvement and the results of the request.

Copies of the letter requesting state review of the Hunt Management Plan and the response is included in Appendix 2. No federally recognized tribes are in the vicinity of the Refuge.

News Release

A news release can be found in Appendix 3.

Outreach Plan

The outreach plan can be found in Appendix 4.

Refuge-specific Regulations

The regulations can be found in Appendix 5.

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Appendix 1. Refuge-specific Hunting Regulations

Pondicherry Division Silvio O. Conte National Fish & Wildlife Refuge Hunting Regulations

A. Migratory Game Bird Hunting. We allow hunting of duck, goose, common snipe, and American woodcock on the Pondicherry Division of the refuge in accordance with State regulations subject to the following conditions:

1. You may only use portable blinds. You must remove all blinds, decoys, shell casings, and other personal equipment and refuse from the refuge by legal sunset (see §§ 27.93 and 27.94 of this chapter).
2. You must wear in a conspicuous manner on the outermost layer of the head, chest, and back, a minimum of 400 square inches (2,600 cm²) of hunter orange clothing or material, except when hunting waterfowl.
3. We allow the use of retrieving dogs but dogs must be under voice command at all times (see § 26.21 of this chapter).
4. We allow hunting during the hours stipulated under the State's hunting regulations but no longer than from ½ hour before legal sunrise to 1/2 hour after legal sunset. We prohibit night hunting. You must unload all firearms (see § 27.42 of this chapter) outside of legal hunting hours.
5. We prohibit all-terrain vehicles (ATV's or OHV's).

B. Upland Game Hunting. We allow hunting of coyote, fox, raccoon, woodchuck, red squirrel, eastern gray squirrel, porcupine, skunk, American crow, snowshoe hare, ring-necked pheasant, and ruffed grouse on the Pondicherry Division of the refuge in accordance with State regulations subject to the following conditions:

1. You must wear in a conspicuous manner on the outermost layer of the head, chest, and back, a minimum of 400 square inches (2,600 cm²) of hunter orange clothing or material.
2. Conditions A3, A4, and A5 apply.
3. We allow hunting of snowshoe hare and coyote with dogs from October 1 to March 15. You may hunt with trailing dogs on the refuge subject to the following conditions:
 - i. We will only allow dog training outside the established hunting seasons under a Special Use Permit issued by the refuge manager.

ii. We allow a maximum of four dogs per hunter.

iii. You must pick up all dogs the same day you release them (see § 26.21(b) of this chapter).

C. Big Game Hunting. We allow hunting of white-tailed deer, moose, black bear, and wild turkey on the Pondicherry Division of the refuge in accordance with State regulations subject to the following conditions:

1. We allow bear hunting with dogs during the established State hound season. Hunting with trailing dogs on the refuge will be subject to the following conditions:

i. We allow a maximum of four dogs per hunter.

ii. You must pick up all dogs the same day you release them (see § 26.21(b) of this chapter).

2. We prohibit the use of bait (see § 32.2(h)).

3. We allow temporary tree stands and blinds, but you must remove them (see §§ 27.93 and 27.94 of this chapter) by the end of the season. Your name and address must be clearly visible on the tree stand. We prohibit nails, screws, or screw-in climbing pegs to build or access a stand or blind (See § 32.2(i)).

4. You must wear in a conspicuous manner on the outermost layer of the head, chest, and back a minimum of 400 square inches (2,600 cm²) of hunter orange clothing or material, except when hunting turkey or while engaged in archery hunting.

5. Conditions A4 and A5 apply.

6. We allow prehunt scouting of the refuge; however, we prohibit firearms during prehunt scouting.

7. We will only allow dog training outside the established hunting seasons under a Special Use Permit issued by the Refuge Manager.

Appendix 2. Correspondence with New Hampshire Fish and Game Department



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Silvio O. Conte National Fish and Wildlife Refuge
52 Avenue A
Turners Falls, MA 01376



November 9, 2004

Mr. Steven Weber
Chief of Wildlife
New Hampshire Fish and Game Department
2 Hazen Drive
Concord, NH 03301-6500

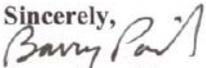
Dear Steve:

We are in the process of officially opening the Pondicherry Division of the Silvio O. Conte National Fish and Wildlife Refuge (Pondicherry Division) to public hunting. This effort began with an environmental assessment in 2003 in which a decision was made to allow hunting at the Pondicherry Division on an interim basis until a Hunt Management Plan could be instituted.

We have completed work on a Draft Hunt Management Plan (enclosed) that outlines our goals and conditions for the hunt program. Once finalized, the included Refuge-specific regulations will be published in the Federal Register and added to Title 50 of the Code of Federal Regulations in time for the 2005 fall hunting season.

Copies (electronic and hard copy) of the Draft Plan were also sent to Mark Ellingwood, Charles Bridges, Will Staats, and Delayne Brown to expedite their reviews. In order to meet the Service's mandated schedule, I would like to meet with your staff to discuss the Department's comments on January 6 following the Big Game Public Working Group meeting. This will allow us time to consider and incorporate necessary changes.

Thank you in advance for the Department's assistance. Please give me a call at 413.863.0209 x7 should you or your staff have any questions.

Sincerely,

Barry Parrish
Assistant Refuge Manager

Enclosure

cc Mark Ellingwood
Charles Bridges
Will Staats
Delayne Brown



New Hampshire Fish and Game Department

11 Hazen Drive, Concord, NH 03301-6500
Headquarters: (603) 271-3421
Web site: www.wildlife.state.nh.us

TDD Access: Relay NH 1-800-735-2964
FAX (603) 271-1438
E-mail: info@wildlife.state.nh.us

Lee E. Perry
Executive Director

Daniel R. Lynch
Assistant Director

January 7, 2005

Barry Parrish
Assistant Refuge Manager
Silvio Conte Natl. Fish and Wildlife Refuge
52 Avenue A
Turners Falls, MA 01376

Dear Barry:

Thanks for spending the time with us yesterday afternoon to go over the refuge specific hunting regulations for the Pondicherry Unit of the Silvio Conte National Fish and Wildlife Refuge. As we discussed, this letter is intended to summarize those discussions, organized by section as detailed in the draft document we reviewed.

Migratory Game Bird Hunting:

- 1) delete the bullet on non-toxic shot as that is mandated everywhere for migratory waterfowl, and we agreed it would be too confusing to hunters and not necessary from a conservation standpoint to require it for woodcock on the refuge, when it is not required off the refuge.

Upland Game Hunting:

- 1) just to confirm, based on discussions here this morning, there is no closed season on woodchuck, red squirrel, porcupine and skunk,
- 2) we agreed to eliminate the bullet regarding the use of non-toxic shot for upland game hunting,
- 3) we agreed to eliminate the first sentence of the bullet dealing with snowshoe hare hunting with dogs, and further agreed to amend the next sentence to read "We allow hunting coyote and snowshoe hare with dogs from October 1 to March 15."

Conserving New Hampshire's wildlife and their habitats since 1865.

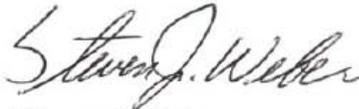
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Big Game Hunting:

- 1) we agreed to the inclusion of the citation 50 CFR 32.2(h) which prohibits the use of bait for hunting big game,
- 2) We agreed to use the same language regarding the use of orange clothing that is listed for migratory birds and upland game, and to exclude the need to use orange clothing when hunting turkeys or with a bow and arrow, and
- 3) we agreed the reference to dogs not being allowed during pre-hunt scouting was unnecessary.

In addition to the above comments on the refuge specific regulations, there were a few comments on the rest of the text of draft hunt plan that I have included as enclosures. If you have any questions on those comments, please feel free to follow-up directly with either myself or Charlie Bridges. Thanks again for your work on this hunt plan. We look forward to working with you as this plan is put into place and executed.

Sincerely,



Steven J. Weber
Chief of Wildlife

Cc: Charlie Bridges
Will Staats
Delayne Brown

Appendix 3. News Release.



United States Department of the Interior

FISH AND WILDLIFE SERVICE NEWS RELEASE SILVIO O. CONTE NATIONAL FISH & WILDLIFE REFUGE

103 East Plumtree Road
Sunderland, MA 01375

Phone: 413-548-8002 Fax: 413-548-9725



For Immediate Release

For further information, contact
Barry Parrish: 413.548-8002

Sunderland, MA. The Silvio O. Conte National Fish and Wildlife Refuge proposes to open the Pondicherry Division, located in Jefferson and Whitefield, New Hampshire, to public hunting of migratory game birds, big game, and small game. A compatibility determination previously found that hunting was an appropriate and compatible use at the Pondicherry Division. The draft environmental assessment, which analyzes the effects of a hunt program, and draft hunt plan are now available for public review and comment. The 30-day comment period will end on April 6, 2007.

Hunting will generally follow regulations established by the New Hampshire Fish and Game Department. There are a few Refuge-specific requirements designed to enhance safety and limit indirect effects to non-target wildlife. These include wearing a minimum of 400 square inches of hunter orange, except archery hunters and those hunting waterfowl and turkey; prohibition of baiting; allowing pursuit dogs for coyotes and snowshoe hares during the period of October 1 through March 15; and prohibition of night hunting. “These regulations will provide the public with a quality hunting experience and ensure compliance with the purposes Congress established the Conte Refuge,” explained Project Leader Andrew French.

These new regulations will become effective in the fall of 2007, after publication in the Federal Register. All comments received during the review period will be evaluated to determine whether changes to these documents are warranted. The draft environmental assessment and draft hunt plan and supporting documentation can be obtained from the Silvio O. Conte National Fish and Wildlife Refuge, Attention: Barry Parrish at 413-548-8002 x113 barry_parrish@fws.gov.

Appendix 4. Outreach Plan

HUNTING OUTREACH PLAN PONDICHERRY DIVISION SILVIO O. CONTE NATIONAL FISH & WILDLIFE REFUGE

Background

Public hunting at the Pondicherry Division has long been a traditional use. Most of the 5,426 acres currently administered as a National Wildlife Refuge were owned by timber companies for many decades and these owners allowed the public relatively unconstrained access. In 1964 a wildlife sanctuary was established by the Audubon Society of New Hampshire and the New Hampshire Fish and Game Department for Cherry and Little Cherry ponds and a lakeshore buffer of approximately 296 acres. Hunting has not been allowed in the sanctuary for 40 years and this is well accepted by the public.

Public Outreach

In March 2007 an Environmental Assessment (EA) and Hunt Management Plan were prepared for the proposed hunt. A public meeting was held in Jefferson, New Hampshire on June 19, 2003 to discuss the revised Refuge boundary and public uses, including hunting. The meeting was advertised via an article in the Coos County Democrat newspaper on June 11 and letters were sent to each of the abutting property owners. The Democrat also ran a series of related articles on the Refuge over the course of a four-month period that year.

Hunting was one of 12 issues identified during the preparation of the EA. The EA disclosed that hunting would continue to be an authorized public use at the Pondicherry Division and a Pre-Acquisition Compatibility Determination was completed and included as an appendix. No one submitting comments in writing or at the public meeting was opposed to a hunt program at the Refuge. There have been two successful hunting seasons (2003-04) since that time.

This proposed Hunt Plan has been developed in partnership with the New Hampshire Department of Fish and Game to offer the public an opportunity to continue a traditional recreational use of the land, while contributing to overall population management goals of the Department (resident game) and the U.S. Fish and Wildlife Service (migratory birds). The plan deviates somewhat from state regulations to improve visitor safety and better protect trust resources, but still provides the public with reasonable hunting opportunities.

The public will be notified of the new regulations via: a news release published in local newspapers prior to the opening of the 2007 hunt season; and, posting of the regulations on the informational kiosks located at the two developed entrances to the Refuge. In

addition, Refuge staff and the local state Conservation Officer will inform hunters of the regulations when opportunities arise.

Appendix 5. Response to Public Comments

We received six comments on our draft EA titled Public Hunting, Pondicherry Division, Silvio O. Conte National Fish and Wildlife Refuge, that was available for public comment from March 7, 2007 through April 6, 2007. Notices were published in the Coos County Democrat and the Caledonian Record the week of March 5, 2007. The documents were available for review from the Silvio O. Conte National Fish and Wildlife Refuge Headquarters. Four of the comments were in support of the Service's Proposed Action Alternative in the Draft EA. Two comments favored the Service's Proposed Action with modifications. One comment from the Humane Society of the United States (HSUS) was in opposition to the Proposed Action. The comments and Service responses are summarized below.

Humane Society of the United States

Comment: "The FWS simply cannot adequately analyze the impacts of its actions, including the cumulative impacts of expanding hunting on Refuges throughout the Refuge System under the National Environmental Policy Act ("NEPA") by employing such an approach.

Response: The cumulative impacts for the proposed hunt program at the Pondicherry Division are presented in the Draft EA, beginning on page 22.

Comment: "...the FWS is failing to provide adequate notice and opportunity to comment on its draft SHPs and EAs.

Response: Notices were published in two regional newspapers the week of March 5, 2007.

Comment: HSUS did not receive the Hunt Plan or Draft EA within an adequate timeframe to prepare detailed comments on the proposals.

Response: The Draft EA was electronically sent to Mr. Andrew Page of HSUS on March 13, 2007.

Comment: The Service is not managing refuges primarily for the benefit of wildlife, because of recreational hunting.

Response: The Service notes the comment.

Comment: Hunting often is not compatible with refuge purposes and negatively impacts non-consumptive uses. "As a result, allowing hunting "materially interfere[s] with and detracts from the non-consumptive priority uses of Refuges."

Response: The Compatibility Determination addresses the relationship of sport hunting and other priority public uses at the Pondicherry Division. For example, Cherry Pond,

Little Cherry Pond, and the corridor connecting the two are popular destinations for wildlife observation and photography. As such, these areas are posted as closed to hunting and noted as such on the division hunting maps.

Comment: The draft EA and Sport Hunt Plan fail to show that the Service has complied with its obligation to “monitor the status and trends of fish, wildlife, and plants...”

Response: The Service notes the comment.

Comment: The Service failed to show that funds to manage other uses are available, before adding recreational hunting.

Response: Adequate funding for recreational hunting is available, as discussed in the Draft Hunt Management Plan on pages 5 and 6.

Comment: HSUS looks forward to commenting on the Service’s draft hunting rules.

Response: The Service notes the comment.

Comment: The Service is “...merely undertaking a haphazard, single-minded exercise so it can allow hunting...”

Response: The Service notes the comment.

Comment: The Draft EA fails to analyze the cumulative impacts of the Refuge System as a whole.

Response: The cumulative effects analysis is found in the Draft EA on pages 22 through 35.

Comment: The Service has not adequately explained why an Environmental Impact statement is not required.

Response: Please refer to the Finding of No Significant Impact.

Comment: The Service did not take a hard look at the impacts of hunting on refuges individually and as a whole system.

Response: The Service notes the comment.

Comment: The Service must provide a cumulative impact analysis for hunting on the Refuge System as a whole.

Response: The Service notes the comment.

Comments: The Service ignores the impacts to migratory birds from non-migratory bird hunting and the impacts of hunters on habitat.

Response: The cumulative effects were analyzed and discussed in the Draft EA, see particularly pages 31 through 33.

Comment: The Service relied on consultations under Section 7 of the Endangered Species Act when threatened and/or endangered species are present, instead of adequately analyzing impacts under NEPA.

Response: See Impacts to Threatened and Endangered Species on page 20 of the Draft EA.

Comment: The Service may not narrow the purpose and need for hunting in order to make sport hunting the only alternative that meet the stated purpose. Stating that the proposed action is to allow hunting is not sufficient under NEPA.

Response: The Service notes the comment.

Comment: The Service failed to adequately study, develop and describe alternative uses. Inclusion of the no action alternative alone does not create a reasonable range of alternatives.

Response: The Service notes the comment.

Comment: The Service must consider alternatives that provide for non-lethal wildlife management.

Response: Alternative 1, is a non-lethal strategy for managing wildlife.

Comment: HSUS asked the Service to consider and analyze a “Non-Consumptive Use” alternative in which resources were devoted to trail maintenance, wildlife monitoring, and other statutory duties.

Response: The Service notes the comment.

Comment: The Service failed to meaningfully involve the public in its NEPA review process.

Response: The Service notes the comment.

Comment: A Section 7 consultation under the Endangered Species Act must be completed.

Response: The Refuge completed an Intra-Service Section 7 Biological Evaluation of the Draft Hunt Management Plan and the Draft EA.

Comment: The Service has compromised biological and ecological integrity by allowing sport hunting on refuges. The impacts of hunting on non-consumptive users have not been adequately addressed.

Response: The Service notes the comment.

Comment: The Service has failed to recognize that the number of hunters has declined in the last few decades, missing out on opportunities to capitalize on potential economic gain that would come from non-consumptive users.

Response: The Service notes the comment.

Comment: The ability to manage deer at “natural” density levels to reduce impacts to vegetation is not realistic because no baseline vegetation information exists and the “...deleterious impacts of deer herbivory has not panned out in the long term.”

Response: The 10-year population objective for white-tailed deer in Wildlife Management Unit D is an increase of about 43 percent (see page 18 of the Draft EA).

Comment: The primary justifications for bear hunting are that they lack natural predators to control populations and hunting reduces the chances of bear/human conflicts.

Response: The Service notes the comments. Also see the discussion of New Hampshire’s 10-year big game management plan on pages 25 through 27.

Comment: Hunting is not considered to be the primary reason for the decline in American woodcock numbers, but that does not prove that hunting is not a contributing factor.

Response: The Service notes the comment.

Comment: The Draft EA acknowledges that ducks would be harvested, but does not state which species. Several migratory bird species that potentially could be harvested are on the Game Birds Below Desired Condition list. The most inexpensive solution to declining populations is to remove them from the list of hunted species.

Response: The Service notes the comment. Also see the pages 22 through 25 of the Draft EA for a discussion of migratory birds.

Comment: The Service claims that upland game species cannot be affected regionally by refuge hunting because of their limited home ranges.

Response: The Service notes the comment. Also see discussion of Resident Small Game on page 29 of the Draft EA.

Comment: Hunting would have a major negative effect on the unknown population levels of wild turkey at the refuge because of illegal take and disturbance of hens during the spring. Spring turkey hunts impact non-target wildlife during the breeding season when they are highly active.

Response: The Service notes the comment. Also see discussion of wild turkeys on pages 26 through 28 of the Draft EA.

Comment: A number of EAs make reference to planned nuisance animal control hunts in spring but do not assess the potential impact of such hunts.

Response: There are no nuisance animal hunts proposed for the Pondicherry Division.

Friends of Pondicherry

Comment: Wilson's snipe, common moorhen, sora, and Virginia rail should be removed from the list of species that can be hunted at Pondicherry. They are found in low numbers at the Refuge and hunting them could result in tensions between bird watchers and hunters.

Response: The original regulations erroneously included common moorhen, sora, and Virginia rail. These will be removed in the 2007 regulation update. New Hampshire recognizes the Wilson's snipe, or as listed in the regulations common snipe, as a migratory game bird regulated through season length and bag limits. Hunters have had the opportunity to hunt snipe at Pondicherry, excluding Cherry and Little Cherry ponds and the Audubon property surrounding those water bodies, for many years prior to establishment of the Division. The proposed regulations would retain this opportunity in keeping with the State's regulations.

Comment: Crow hunting should not be allowed because most people cannot differentiate between crows and protected ravens.

Response: The land comprising the Pondicherry Division has been open for crow hunting for many years prior to Service acquisition. In reality, few hunters pursue crows in this area and we are not aware of any problems associated with this season regulated by the state.

Comment: Special consideration should be given to protecting spruce grouse.

Response: We post the state's flyer designed to help hunters differentiate between spruce grouse and ruffed grouse on kiosks at the refuge entry points.

New Hampshire Wildlife Federation

Comment: They do not believe that wearing hunter orange clothing should be mandatory because it is not required in New Hampshire.

Response: Wearing hunter orange is a practice that has been an effective safety feature in many states. While New Hampshire does not require it, hunter orange clothing has been mandatory at the nearby Lake Umbagog National Wildlife Refuge. We post signs on the informational kiosks alerting non-hunting visitors of ongoing hunting seasons and suggest that they also wear hunter orange clothing.

Comment: Bear baiting should be allowed at Pondicherry as it is elsewhere in the state.

Response: The restriction on the use of bait is based on 50 CFR 32.2(h).