

Agassiz National Wildlife Refuge

Hunting Chapter of Visitor Service Plan

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I. Introduction

This Hunting Chapter precedes the overall Visitor Services Plan for Agassiz National Wildlife Refuge (Agassiz NWR). This chapter includes specific guidelines for expanding hunting opportunities on the refuge as described and approved in the *Agassiz National Wildlife Refuge Comprehensive Conservation Plan (CCP)*, which was approved July 19, 2005. Through the CCP process an Environmental Assessment, Compatibility Determination for Hunting (Appendix A) and public reviews were accomplished. Expanding hunting opportunities on the Agassiz NWR are supported in the 1997 National Wildlife Refuge Improvement Act as one of the six priority public uses encouraged on refuges.

Prior to the CCP hunting opportunities were limited to a deer-firearms season and a moose season. The entire refuge was open to hunting except two Closed Areas surrounding the Headquarters and Maintenance Shop. The Agassiz NWR deer-firearms season falls within Minnesota Permit Area 203 and includes the refuge and surrounding Minnesota Department of Natural Resources (MNDNR) Wildlife Management Areas (WMAs). Rules and regulations, including limits, are established by the State of Minnesota and/or the U.S. Fish and Wildlife Service. The last moose season was held in 1993. It is unlikely that the season will be reopened in the near future due to low numbers caused by warming climates (Cox, *et al in press*).

Approval of the CCP allows hunting opportunities to be expanded to include the following:

- A youth deer hunt (state season - not to exceed one weekend in October)
- A youth waterfowl hunt (state season)
- Archery-deer hunting (during/after deer firearms season)
- Muzzle loader deer hunting (during/after deer firearms season)
- Ruffed and Sharp-tailed grouse hunting (during/after deer firearms season)

Details on how these hunts will be conducted are included in this chapter.

Figure 1. Location of Agassiz NWR

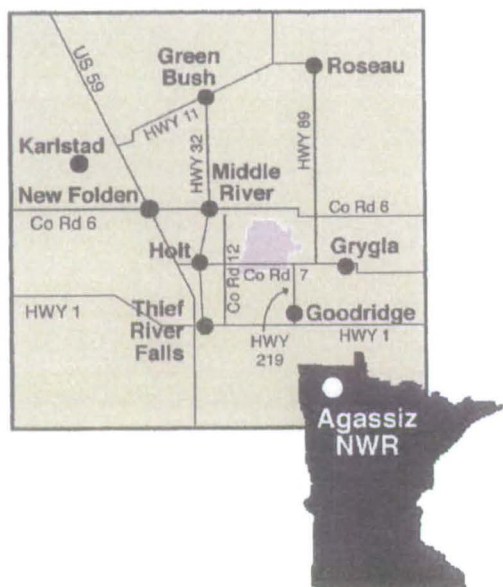


Figure 1. Agassiz NWR is located in Marshall County, in northwestern Minnesota, about 25 miles northeast of Thief River Falls along Marshall County Road 7 (22996 290th St. NE, Middle River, MN 56737).

The refuge is about 61,500 acres and currently includes the following habitats:

- 37,400 acres of wetlands and shallow open water pools
- 11,650 acres of shrubland
- 9,900 acres of woodland
- 1,700 acres of grassland
- 170 acres of croplands
- 670 acres of developed lands (roads/dikes, buildings, parking lots, etc.)

There is a 4,000 acre black spruce-tamarack bog "Wilderness Area" in the north-central portion of the refuge which is managed under the *National Wilderness Preservation System*. The diversity of refuge habitats supports a wide variety of resident and migratory wildlife, including 287 species of birds, 49 species of mammals, 12 species of amphibians, and 9 species of reptiles. Agassiz NWR is a key breeding ground for 17 species of ducks, Franklin's gulls, bald eagles, black terns and marsh birds. There are moose, bobcat, fisher and two resident packs of gray wolves.

In 2004, 4,750 hunting licenses were sold in Marshall County and over 7,900 sold in Pennington County, generating \$138,650 and \$201,000 in hunting license sales respectively. Deer-firearms license sales for Area 203 were 390 in 2004 and 358 in 2005. The decrease in 2005 is probably the result of re-zoning of Areas 1, 2 and 4, which changed hunting patterns (area and timing) and types of licenses that needed to be purchased.

Major access to the Agassiz NWR includes the following Marshall County Roads:

- MCR 7 (290th St. NE) - bisects the refuge in an east-west direction
- MCR 120 (260th St. NE) to 270th St NE – southern boundary
- MCRs 121, 122, 124 – lead to western boundary
- MCR 131 – leads to northeastern boundary

Several township roads provide access along several boundaries. Portions of interior roads and the north boundary road will be open depending on the specific hunting season.

Strategies to provide a quality experience will be closely monitored via hunter contact and as comments are received. It is anticipated that hunting opportunities may need to be modified as hunter numbers increase.

II. Conformance with Statutory Authority

Agassiz NWR, formerly Mud Lake Migratory Waterfowl Refuge, was established by President Franklin D. Roosevelt by Executive Order 7583 on March 23, 1937. In addition, the ability to acquire land falls under the purview of the Migratory Bird Conservation Act (MBCA), Feb. 18, 1929, 16 U.S.C. 715d.

These authorities identified the **Refuge Purpose(s)** as follows:

"... as a refuge and breeding ground for migratory birds and other wildlife." Executive Order 7583, dated March 23, 1937

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

In the past, the ability to open the refuge to hunting was covered under the National Wildlife Refuge Administration Act, 16 U.S.C 688dd (a) (2). This Act was amended in 1997 by the National Wildlife Refuge Improvement Act of 1997 (Public Law 105-57). These Acts support past hunting activities on Agassiz NWR and future hunting opportunities as proposed in this document as follows:

"... conservation, management, and ... restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans..." 16 U.S.C. § 668dd(a)(2) (National Wildlife Refuge System Administration Act)

"... compatible wildlife-dependant recreation is a legitimate and appropriate general public use of the System, directly related to the mission of the System and the purposes of many refuges...." Public Law 105-57, 111 STAT.1254, Sec.5. (B) (National Wildlife Refuge Improvement Act of 1997).

The NWRS Improvement Act of 1997 defines hunting as one of six recognized wildlife dependant recreational uses. Expanding the existing hunting program at Agassiz NWR to increase methods of take for white-tailed deer, a youth deer-firearms hunt, hunting of ruffed and sharp-tailed grouse, and a one to two day youth waterfowl season supports this wildlife dependant recreation use.

The proposed hunts will not adversely affect the primary purposes of the Agassiz NWR. The youth deer hunt, which is two days in October, will be in an area adjacent to a State Wildlife Management Area and have minimal impacts to migratory birds. The youth waterfowl hunt is currently held on one Saturday in September and may increase to a two-day (weekend) hunt in September. Although both youth hunts occur during the fall prescribed burning season, they occur in smaller units of the refuge and are restricted to one or two weekend days; therefore, these hunts will not compromise the use of fire as a habitat management tool nor impose a safety concern for hunters. Deer-archery, deer-muzzleloader, ruffed grouse and sharp-tailed grouse hunting will occur during/after the deer- firearms season (first full week in November). By this time, migratory bird use has been diminished by cold temperatures and most fall burning has been completed.

Goals of the Agassiz National Wildlife Refuge: As outlined in the July 2005 CCP.

- **Goal 1: Wildlife** *【Objectives (9) provide specifics】*
Protect, restore and maintain a natural diversity of wildlife native to northwestern Minnesota, with an emphasis on Service Resource Conservation Priority Species.
- **Goal 2: Habitat** *【Objectives (13) provide specifics】*
Restore and enhance a natural landscape within the Refuge and its seven-county Management District to emulate naturally functioning watersheds and habitats within the tallgrass prairie, prairie pothole, aspen parkland, and northern coniferous forest, including habitat corridors for wildlife.
- **Goal 3: People** *【Objectives (10) provide specifics】*
Provide visitors and the community with opportunities to experience quality wildlife-dependent recreation activities and to understand and appreciate a natural, functioning landscape

III. Statement of Objectives

The broad goals of the Agassiz NWR Hunting Plan are as follows:

- Provide the public with safe and enjoyable hunts that are compatible with the Refuge purpose.
- Provide quality hunting opportunities that minimize conflict with other public use activities.
- Provide the public with opportunities to hunt wildlife species consistent with the laws and regulations of the State of Minnesota, that don't adversely effect local wildlife populations, and are consistent with the 1997 National Wildlife Refuge System Improvement Act.
- Provide additional hunting opportunities for persons with disabilities if it is determined there is a need to expand beyond existing opportunities.

Objectives of the Agassiz NWR Hunting Plan as listed in the CCP under **Goal 3: People** are as follows:

Objective 3.1: Deer Hunt: Provide annual firearms deer hunt that meets definition of "quality" in the FWS manual and is designed to maintain deer population density at 15-20 deer/square mile.

Rationale: The deer population has finally recovered from the harsh winters of 1995/1996 and 1996/1997 and deer densities are at the desired Refuge goal. As a result, deer hunters have steadily increased over the last 3 years from 165 to 285 in 2003. This increasing trend in deer hunters should continue for several years unless detrimental factors (weather, disease) develop that would negatively impact the herd.

The Fish and Wildlife Service Manual defines a "quality hunting experience" at 605 FW 2.1 as one that:

- Maximizes safety for hunters and other visitors
- Encourages the highest standards of ethical behavior in taking or attempting to take wildlife

- Is available to a broad spectrum of the hunting public
- Contributes positively to or has no adverse effect on population management of resident or migratory species
- Reflects positively on the individual refuge, the Refuge System, and the Service
- Provides hunters uncrowded conditions by minimizing conflicts and competition among hunters
- Provides reasonable challenges and opportunities for taking targeted species under the described harvest objective established by the hunting program. It also minimizes the reliance on motorized vehicles and technology designed to increase the advantage of the hunter over wildlife
- Minimizes habitat impacts
- Creates minimal conflict with other priority wildlife-dependent recreational uses or refuge operations
- Incorporates a message of stewardship and conservation in hunting opportunities.

Strategies:

- Cooperate with Minnesota DNR to carry out the annual fall firearms deer hunt.
- Contact and work with Minnesota DNR, schools, hunt clubs, 4-H, Boy and Girl Scouts, NRA, and/or other groups to **implement youth hunt for deer on the Refuge.**
- Use the annual deer population estimates from the mid-winter census to decide whether to conduct antlered or antlerless hunts the following autumn.
- Conduct informal survey /interact with hunters and listen to feedback on ways to improve hunt.
- By 2006, update the Agassiz NWR step-down hunting plan outlining procedures and providing broad guidance for managing future hunts.

Objective 3.2: Accessible Hunting Program: Determine the need for and develop an accessible hunting program for disabled hunters by conducting surveys and **feasibility study by 2010.**

Rationale: At present, there is no accessible hunting program on the Refuge. There is one permanent, accessible deer stand available. There appears to be at least a modest demand for such a special hunt. A study would examine whether or not present access facilities on Refuge (roads, dikes, trails, blinds, tree stands) would be sufficient to allow for an accessible hunt, what deficiencies exist, and the cost of remedying these deficiencies.

Strategies:

- Conduct a study on the demand for an accessible hunting program, the feasibility of carrying it out on the Refuge, and the best location or locations for doing so.
- Conduct a pilot hunt if the study points towards its feasibility.
- If an accessible hunt is recommended, incorporate it in the step-down Hunting Plan.

Objective 3.3: Moose Hunting: Provide moose hunting opportunities when the population recovers to above 200 moose.

Rationale: There has been a moose hunt at Agassiz NWR in the past, but the current moose population of fewer than 100 individuals does not allow for it. The Refuge conducts an annual moose census that observes population trends and estimates moose numbers. When the population exceeds 200 and remains on an upward trajectory, the Refuge, in conjunction with Minnesota DNR, can assess the situation and recommend reopening the moose hunt.

Strategies:

- Continue to monitor the Refuge moose population annually and work closely with the Minnesota DNR on understanding the causes of the recent collapse as well as the current recovery and whether or not it is possible or desirable to mitigate such declines.
- Cooperate with the Minnesota DNR on eventually reopening the moose hunt on Refuge and/or adjacent WMAs.

Objective 3.4: Archery and Muzzle-loader Deer and Ruffed Grouse Hunts:** Provide hunting opportunities for deer (archery and muzzle-loader) and Ruffed Grouse during and after the state deer firearms season following state seasons and regulations. Access will be primarily walk-in with strategically located parking lots. The open area will be the same as for the deer firearms season.

***NOTE: Sharp-tailed grouse were added at the request of the MNDNR during the 'Draft' CCP review and comment period. Modifications were made to include this species in the Hunting Compatibility Determination and the Summary CCP, but due to an oversight were not added to Objective 3.4.*

Rationale: There has never been a season for archery and muzzle-loader hunting at Agassiz NWR, however, muzzle-loaders may be used during the regular firearms season. These hunts are popular among some hunters who seek a more challenging and primitive hunting experience. Due to the late season, this hunt will not cause disturbance to migrating birds.

Strategies:

- Update the Agassiz NWR Refuge Hunt Plan (a step-down management plan) that outlines all hunting opportunities, seasons and locations on the Refuge as well as identify rules, controls, and constraints by 2006.
- Work with partners like Minnesota DNR and local hunting clubs to implement archery and muzzle-loader hunts on the Refuge.
- Modify hunting brochures to incorporate changes.
- Provide additional law enforcement presence.

Objective 3.5: Youth Waterfowl Hunt: Provide a quality youth waterfowl hunt on Farnes Pool in compliance with the state youth season and regulations. A future hunting plan would identify access boundaries.

Rationale: Agassiz NWR has always been treated as a sanctuary for waterfowl and has never permitted waterfowl hunting, under the rationale that numerous areas outside the Refuge boundaries are open to hunting for ducks and geese. Comments received during scoping indicated both support for this policy as well as some desire to open at least one part of the Refuge to hunting. The Robert E. Farnes Pool is located in the southwestern corner of the Refuge, contiguous with Minnesota DNR's Elm Lake Wildlife Management Area. Further, it is clearly demarcated by east-west County Route 7. Thus, it is well situated to be clearly identifiable and isolated from the rest of the Refuge. In cooperation with Minnesota DNR, it should be feasible to confine waterfowl hunting to this portion of the Refuge during the normal state youth-only season.

Strategies:

- Explore possible access and boundaries of the specific area that might be open to waterfowl hunting with Minnesota DNR.
- If portions of Farnes Pool are opened to waterfowl hunting, incorporate details in the step-down Refuge Hunting Plan to be developed.
- Ensure sufficient Refuge law enforcement presence.

IV. Assessment

Currently, wildlife population dynamics are annually evaluated by the State of Minnesota (MnDNR) and U.S. Fish and Wildlife Service (FWS) as part of county, state, national or international wildlife population surveys. Specific surveys relative to this hunt plan include: doe/fetus road kill, aerial big game, lek/dancing ground, drumming, and waterfowl pair/brood counts. These surveys combined with a winter severity index, and biological knowledge of individual species or population models are used to regulate species hunted.

Desired population goals have been established for duck production, deer, and moose on Agassiz NWR and are clearly defined in the CCP as follows:

Objective 1.2: Duck Production on Agassiz NWR: Based on a 5-year average, maintain annual brood production above the long-term average of over 13,000 ducklings.

Rationale: A variety of habitats must be provided to produce ducks. Habitat for pairing, nesting and brood rearing must be available in close proximity. Fledged ducklings are the best measure of the suitability of waterfowl breeding habitat. Climatic factors that are beyond the control of management can influence habitat suitability so long-term averages are a better measurement of management effectiveness than just one year alone. Brood counts have been conducted on the Refuge for 45 years and the average production since 1981 has been between 13,000 and 14,000 ducklings.

Objective 1.7: Deer Population: Annually, maintain deer population for State Management Unit 203 at densities between 15-20 deer per square mile based on annual winter surveys for a wolf prey base and public hunting opportunities.

Rationale: Based on studies and long-term experience with deer herd management by Minnesota DNR, this is the optimal population density or carrying capacity of white-tailed deer in habitat characteristic of this region. At present, the Refuge's deer herd is healthy and increasing, at a density of approximately 12 per square mile.

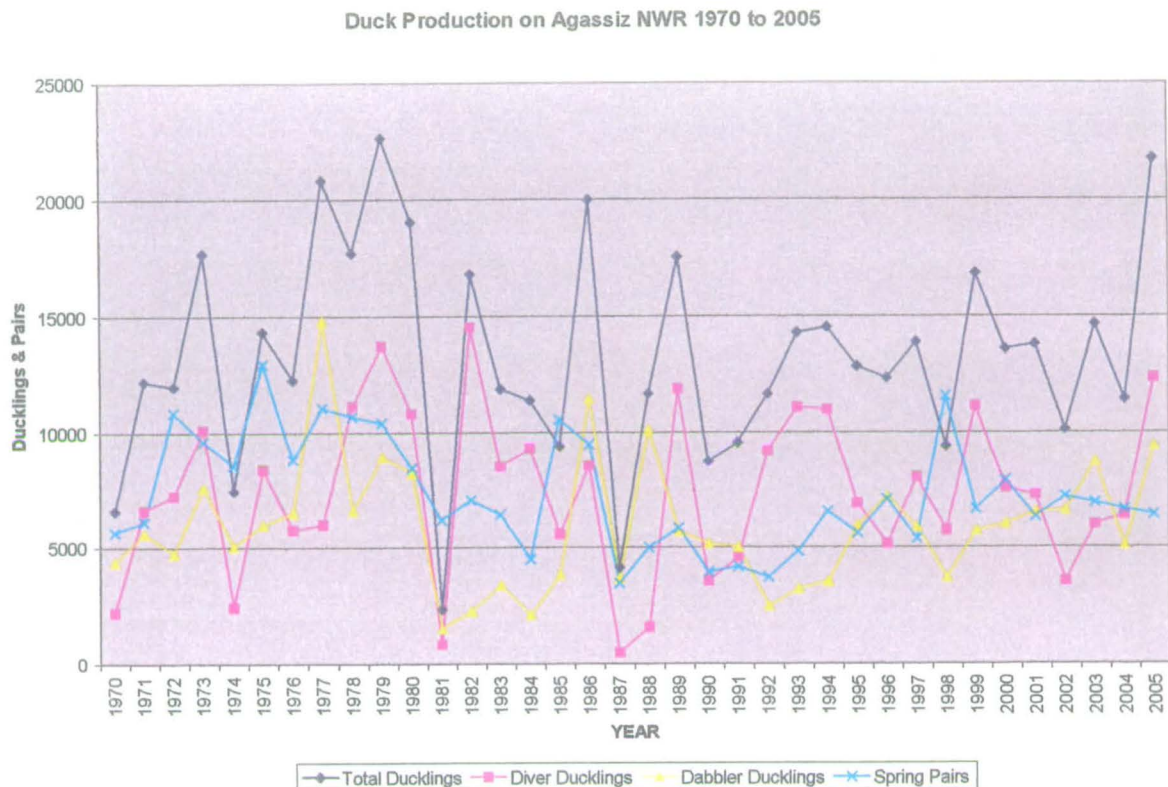
Objective 1.8: Moose Population: Maintain moose population for State Management Unit 2 at 200 to 350 individuals (if population recovers) based on annual winter surveys and carrying capacity for wildlife viewing and hunting opportunities.

Rationale: As with the white-tail deer population density objective, the target population for moose reflects what biologists believe local habitats can support. Beginning in 1993, the Agassiz NWR moose population crashed for unknown reasons, declining to a low of approximately 40 individuals in 1998 as determined by the quadrat census method. This sharp decline in numbers paralleled a wider collapse throughout northwest Minnesota, the causes for which are under investigation and still being determined. Since 1998, the Refuge's moose herd has been increasing slowly, but is still less than half the population objective.

Duck Production (Brood) Population: The refuge duck production goal was selected as a point of measure of sustainability for the Youth Duck Hunt, since this hunt occurs in mid-September. At this time of year, very few migrant ducks are in the area.

Duck production in 2005 was estimated using the traditional brood surveys conducted on 6 July and 18 August. Based on standardized survey methods and correction factors there were 238 broods. Based on average brood sizes of 6 and 5.25 for dabblers and divers respectively the traditional model gives an estimated production of 9,406 dabblers and 12,346 divers for a total of 21,752 ducklings. This was a 90% increase over last year and well above the long term average production of 13,263. This estimate is the highest since the late 1970's when production estimates were between 19,000 and 23,000 for a four year period. Figure 2 summarizes duck production on Agassiz NWR for the last 35 years

Figure 2. Duck Production at Agassiz NWR from 1970 to 2005.



Duck production at Agassiz NWR is more than sufficient to support a 1 or 2 day youth duck hunt in September on the Farmes Pool Unit.

Deer Population: The February 2005 deer population for State Management Unit 203, which includes Agassiz NWR and adjoining State WMAs was estimated at 1593 ± 362 (23%) at the 90% C.I. (assuming the SF was measured without error). The density is 12.3 deer/mi² using the total area surveyed of 130 square miles. This was a decrease from the 2004 estimate of 14.7 deer/mi². This decrease was not expected with the average type winter weather experienced and harvest intensity only slightly increased.

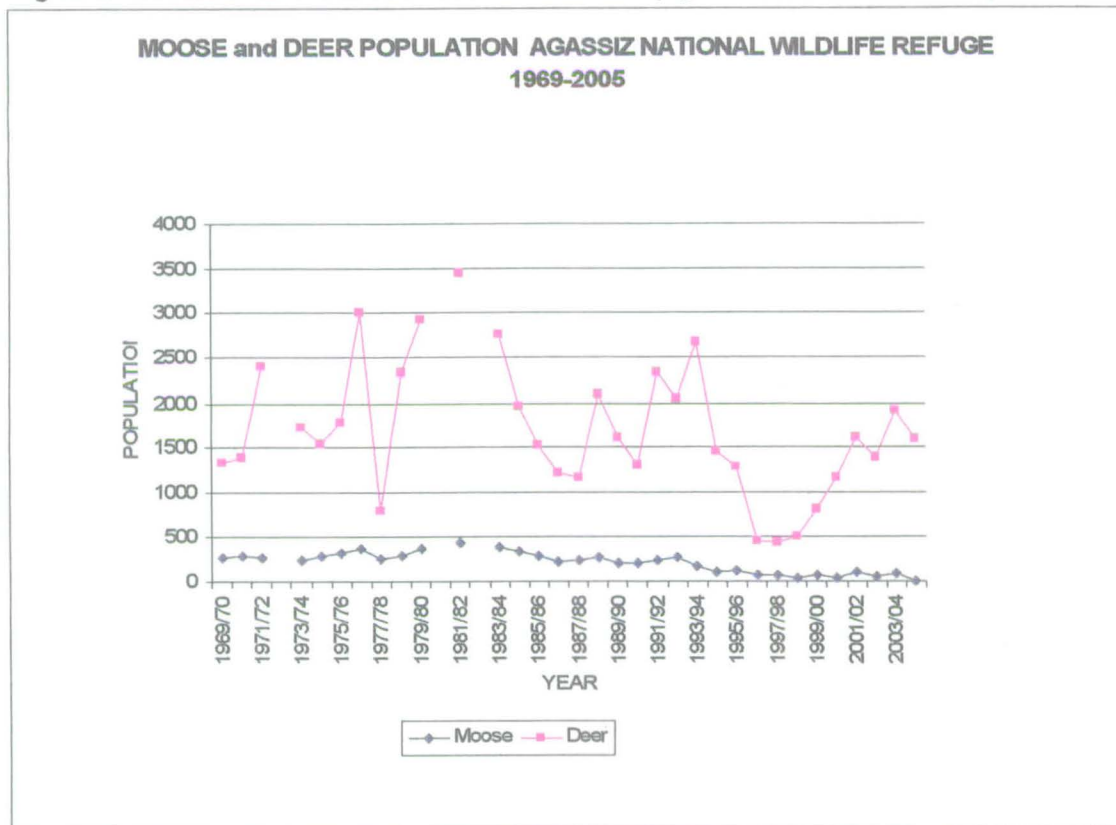
As a result of the February 2005 deer count, harvest limits were more restrictive for the 2005 general deer season in Area 203 by mutual agreement of Agassiz NWR and MNDNR. Pre-season hunt estimates were 16 deer/mi². The 2005 harvest was 141 by roughly 400 hunter visits versus the 2004 harvest of 203 deer by 470 hunter visits. Deer harvested were in excellent condition.

There have been 8 consecutive mild winters with Winter Severity Index (WSI) of less than 65 at the time of the survey. The 2005 WSI was 50 at the time of survey compared to 39 and 26 respectively for the past two years. There are adequate deer numbers to support continuation of the deer-firearms hunt, two wolf packs and new deer hunting opportunities outlined in this plan. The reduced season lengths for archery and muzzleloader coupled with limited access to the refuge will limit the number of hunters. This is the second year for a youth deer hunt on adjoining state lands. Hunter participation has been very low, three

parties in 2004 and five in 2005. Opening a portion of the refuge for this hunt will not increase numbers substantially.

Moose Population: The winter moose survey for moose Management Zone 2 was flown on 17 November 2005. This year's estimate of 44 is much lower than two years ago when the quadrat estimate was 78 (the quadrat survey was not completed in 2004). This lower estimate is in line with the mid winter big game transect estimate from February 2005 that also indicated a drop from around 80 to 47. Figure 3 summarizes 36 years of moose and deer survey data for Area 203, which includes both Agassiz NWR and Eckvold and Elm Lake WMAs.

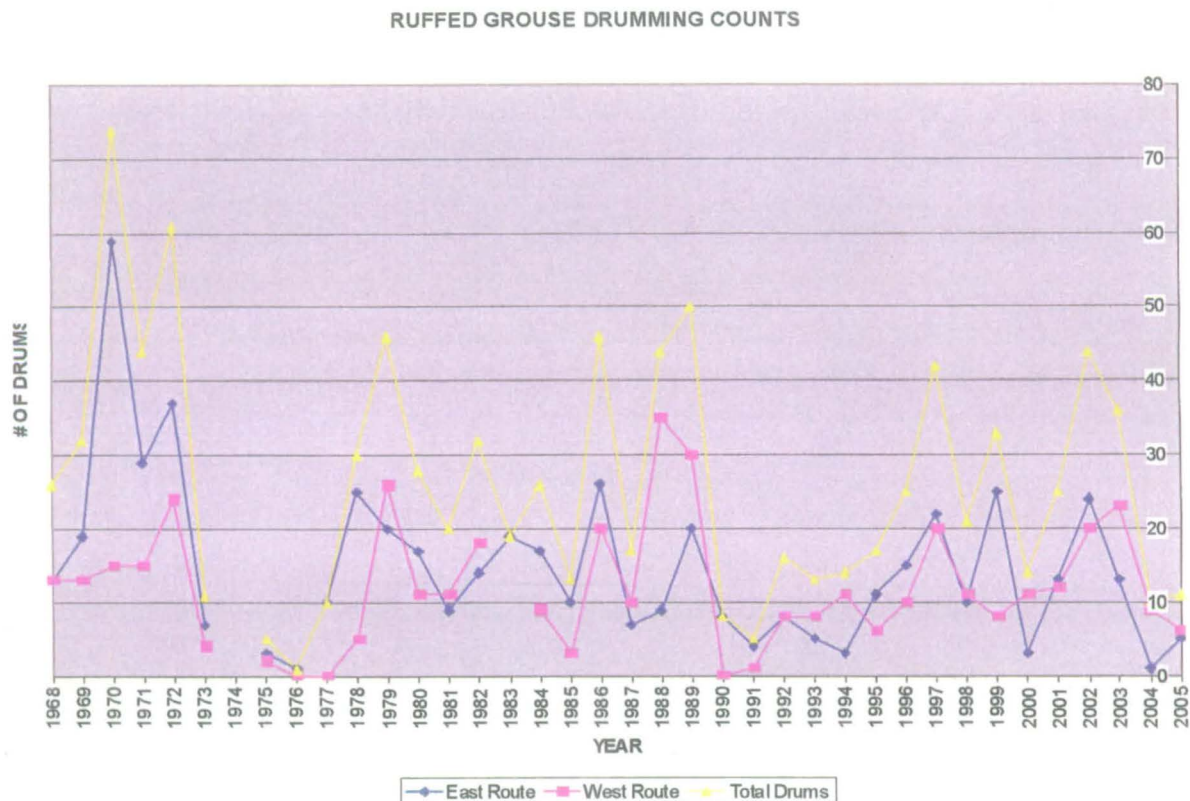
Figure 3. MOOSE & DEER POPULATION for AREA 203 (Agassiz NWR & State WMAs) 1969-2005.



Unfortunately, the decline of the moose population in Northwest Minnesota does not appear to be from causes that management actions can change. A joint MnDNR and USFWS moose study conducted from 1995 to 2000 concluded that climatic changes combined with increased deer numbers and parasite transmission rates may have rendered Northwest Minnesota inhospitable to moose (Cox et. al. submitted for publication). Until the climatic factors that are making the moose range shrink to the North are reversed, we will probably see fewer moose in Northwest Minnesota. Consequently, *moose hunting will remain closed until the population recovers to 200 to 350 animals.*

Ruffed and Sharp-tailed Grouse Populations: Drumming and lek counts are conducted on and around the refuge as part of a statewide survey. Ruffed grouse are subject to cyclical population fluctuations and sharp-tailed to a much lesser extent.

Figure 4. Ruffed Grouse Drumming Counts at Agassiz NWR from 1968 to 2005.



There is limited habitat for sharp-tailed grouse on the refuge. Sharp-tailed grouse nesting habitat, grassland, has declined by half over the last 20 years. The Open Landscape Alternative selected in the CCP will aggressively promote and maintain grassland habitat in a Focus Area.

According to the MNDNR, sharp-tailed grouse numbers have remained relatively stable over the past 20 years in northwest Minnesota. Numbers are based on abundance of dancing ground leks with an average of 8 to 12 birds/lek. Up until 2005 no sharp-tailed grouse had been observed on leks on the refuge or within a half mile radius (survey area) since 1995. Since 1995 we have experienced the wettest decade on record with severe to moderate spring flooding eight of the ten years. Flooding would negatively impact bird use on leks and nesting success. Along the western boundary of the refuge sharp-tailed numbers have increased over the last two years.

MnDNR bag limits for both species have not changed since the mid 1970s. State hunting seasons for both species begin mid September. There will be a reduced season on Agassiz NWR beginning with the deer firearms season during the first full week in November to the

State season closing date. It is anticipated hunting pressure for both species will be light as hunter access will be very limited (primarily walk-in) after the deer firearms season.

V. Description of the Hunting Program

The Agassiz NWR hunting program is designed to provide compatible hunting opportunities, while minimizing conflicts with non-hunting user groups.

A. Areas of the refuge that support targeted species.

Deer and Moose: Agassiz NWR and the State WMAs are managed under the State Deer Hunting Management Unit 203. All surveys include refuge (61,500 acres) and state lands (20,000 acres). The two units total 130 square miles of habitat of which 108 square miles are suitable for deer and moose.

Ruffed Grouse: Currently, there are over 8,500 acres of habitat available to ruffed grouse on Agassiz NWR as follows:

▪ Aspen forest	7,068
▪ Mixed deciduous forest	305
▪ Willow/dogwood	479
▪ Alder thicket	577
▪ Burr Oak	147

Sharp-tailed Grouse: Currently, there are about 18,000 acres of habitat available to sharp-tailed grouse on Agassiz NWR as follows:

▪ Grassland	1,708
▪ Cropland	170
▪ Sedge meadow	5,364
▪ Willow/grass	1,352
▪ Willow/sedge	9,223

The Open Landscape Alternative selected in the CCP would increase grasslands, nesting and lek habitat, by 415 acres in a Focus Area on the southeast corner of the refuge. This Focus Area encompasses 4,300 acres, 6.7 square miles, and borders an open landscape management area, about 2 square miles, on Elm Lake WMA. However, if the wet cycle continues, especially during the spring and nesting season, bird use will be limited by high water levels.

B. Species to be Hunted

Table 1 lists species that will be open for hunting on the Agassiz NWR. This list is based on current MNDNR justifications for species hunted and harvestable limits, existence of habitats on Agassiz NWR that will support specific wildlife species, and refuge surveys. Adjustments to species hunted may be made based on wildlife surveys.

Table 1 – Wildlife Species Opened for Hunting on Agassiz NWR

Species	General Dates of Hunt
White-tailed Deer:	
Youth Hunt	October (1 weekend)
General Firearms	November (9 days -1 st full week in Nov)
Archery	November- December (during & after deer-firearms)
Muzzleloader	November -December (~15 days beginning end of Nov)
Upland Game:	
Ruffed Grouse	November–December (during & after deer-firearms)
Sharp-tailed Grouse	November (during & after deer-firearms)
Waterfowl:	
Youth Hunt	September (1 or 2 days)
Moose:	December – early; CLOSED until populations recover

C. Areas to be Opened to Hunting

Deer - Firearms & Moose: The entire refuge, except two closed areas around administrative buildings, is open to deer-firearms and moose hunting (when open), see Figure 5.

Deer - Archery/Muzzleloader & Grouse Hunting: The entire refuge, except two closed areas around administrative buildings, will be open to deer-archery, deer-muzzleloader, and ruffed and sharp-tailed grouse hunters. However, access to the refuge interior will be more limiting, see Figure 6.

Deer - Youth Hunt: The youth deer hunt will be located primarily on refuge lands east of Northgate Road and north of the maintenance shop Closed Area, see Figure 7. This area is 14,825 acres in size and borders the northwest boundary of the MnDNR Eckvoll Wildlife Management Area (WMA), which is also open to youth deer hunting. The two areas provide a continuous block of habitat for young hunters.

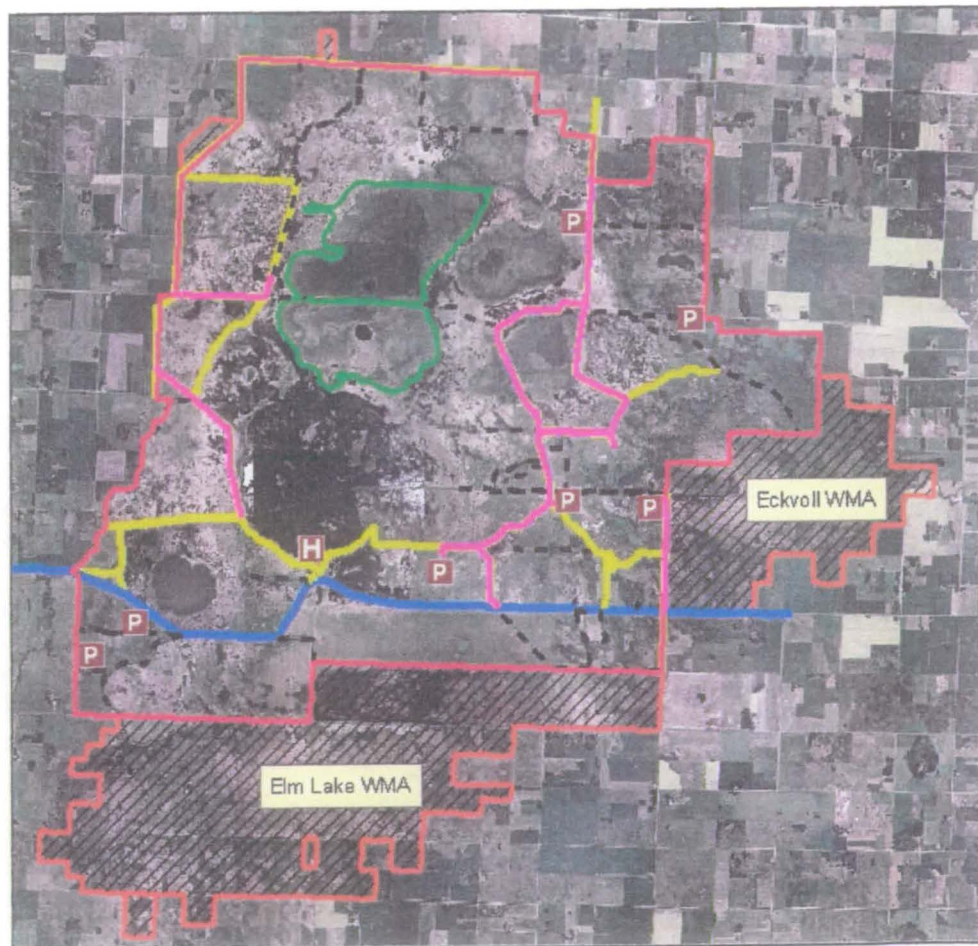
Waterfowl - Youth Hunt: The youth waterfowl hunt will be confined to the Farmed Pool Unit, which is south of Marshall County Road 7, see Figure 8. This area is about 4,220 acres in size and borders the Elm Lake WMA located to the south and east of this unit. The two areas provide a continuous block of habitat for young hunters.

Maps (Figures 5, 6, 7 and 8) of the Hunting Areas are on the following pages.

Figure 5

Deer Firearms General Hunting

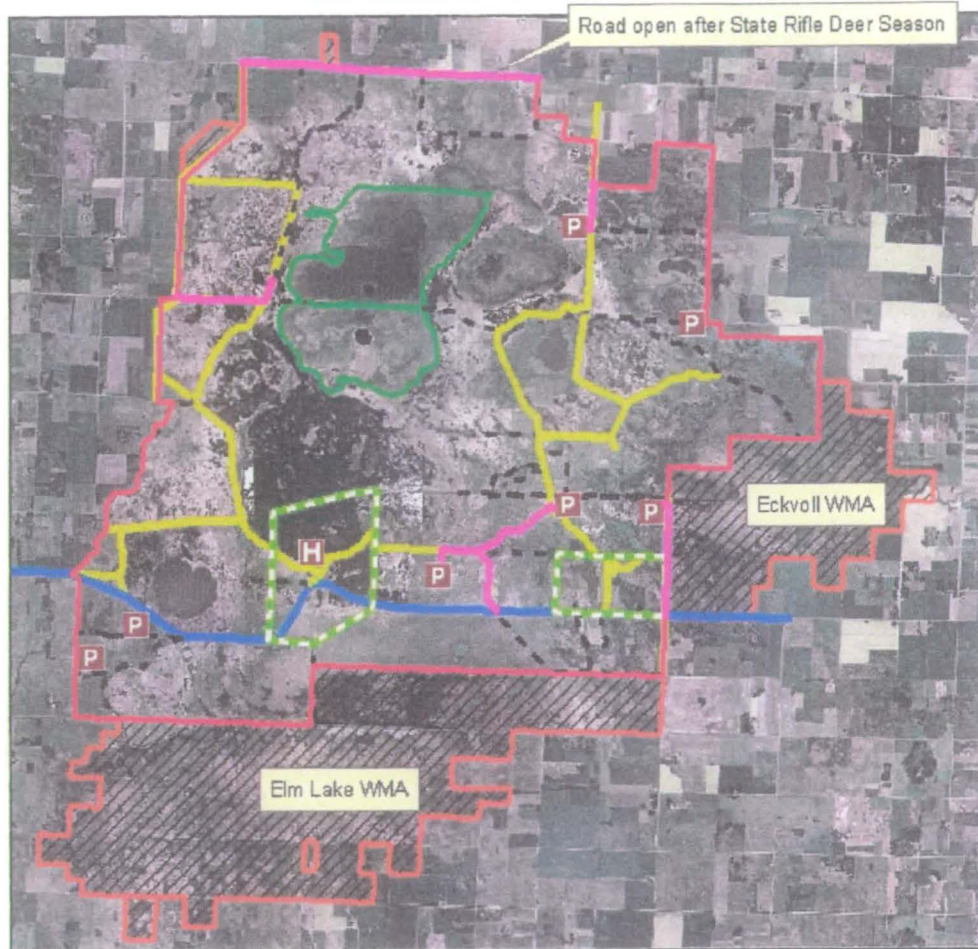
Agassiz National Wildlife Refuge



- Roads Open to Motorized Travel
- P** Parking
- H** Refuge Headquarters
- Refuge Boundary
- Wilderness Area
- State Management Areas
- Refuge Roads - Closed to Motorized Vehicles
- - - Seasonal Roads - Closed to Motorized Vehicles
- County 7

Figure 6

Deer Archery / Muzzleloader and Grouse Hunting Access Areas Agassiz National Wildlife Refuge



Agassiz NWR is open to deer archery, muzzle loading and grouse hunting during and after normal State Rifle Deer Season, in accordance to State Regulations.

- Refuge Hunt Area Access Roads
- Parking
- Refuge Headquarters
- Refuge Boundary
- Areas Closed To All Hunting
- Wilderness Area
- State Management Areas
- Refuge Roads - Closed to Motorized Vehicles
- Seasonal Roads - Closed to Motorized Vehicles
- County 7

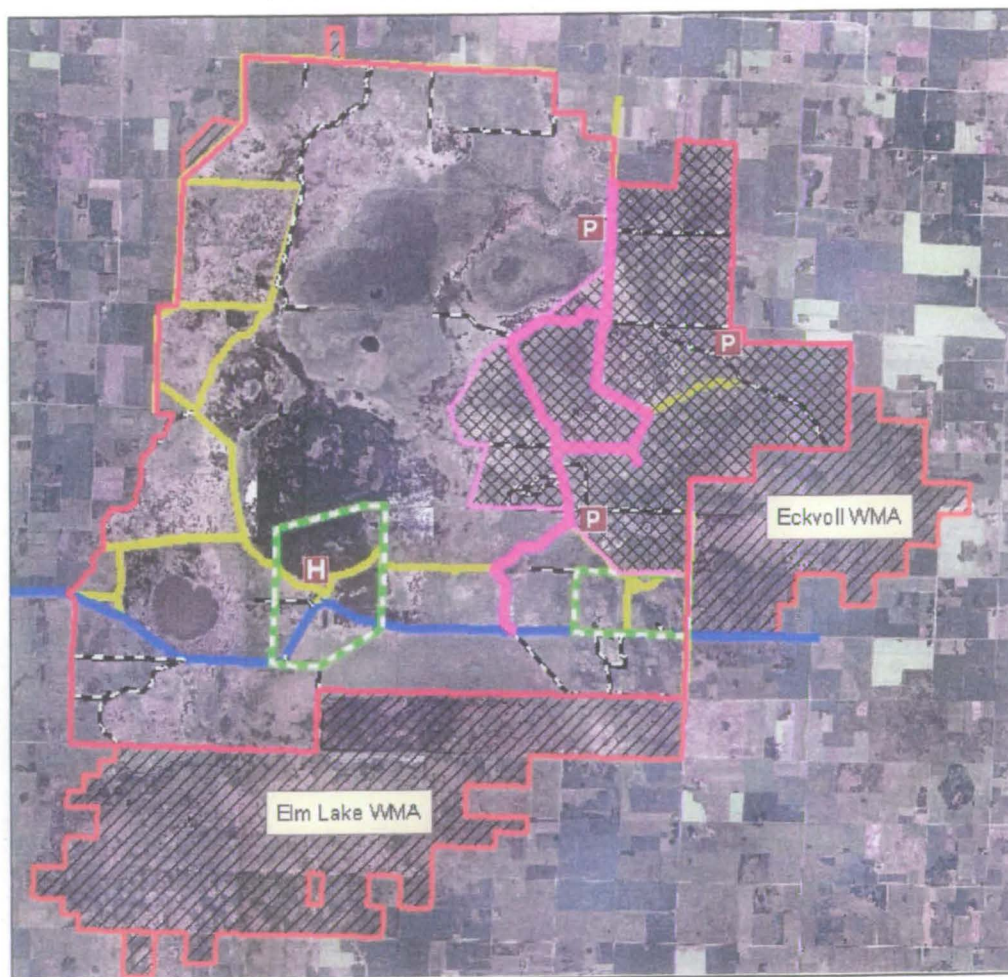
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Figure 7

Youth Deer Hunt Area

Agassiz National Wildlife Refuge



- Youth Deer Hunting Access Roads
- Youth Deer Hunting Parking
- Refuge Headquarters
- Refuge Boundary
- Youth Deer Hunting Area
- Areas Closed To All Hunting
- State Management Areas
- Refuge Roads - Closed to Motorized Vehicles
- Seasonal Roads - Closed to Motorized Vehicles
- County 7

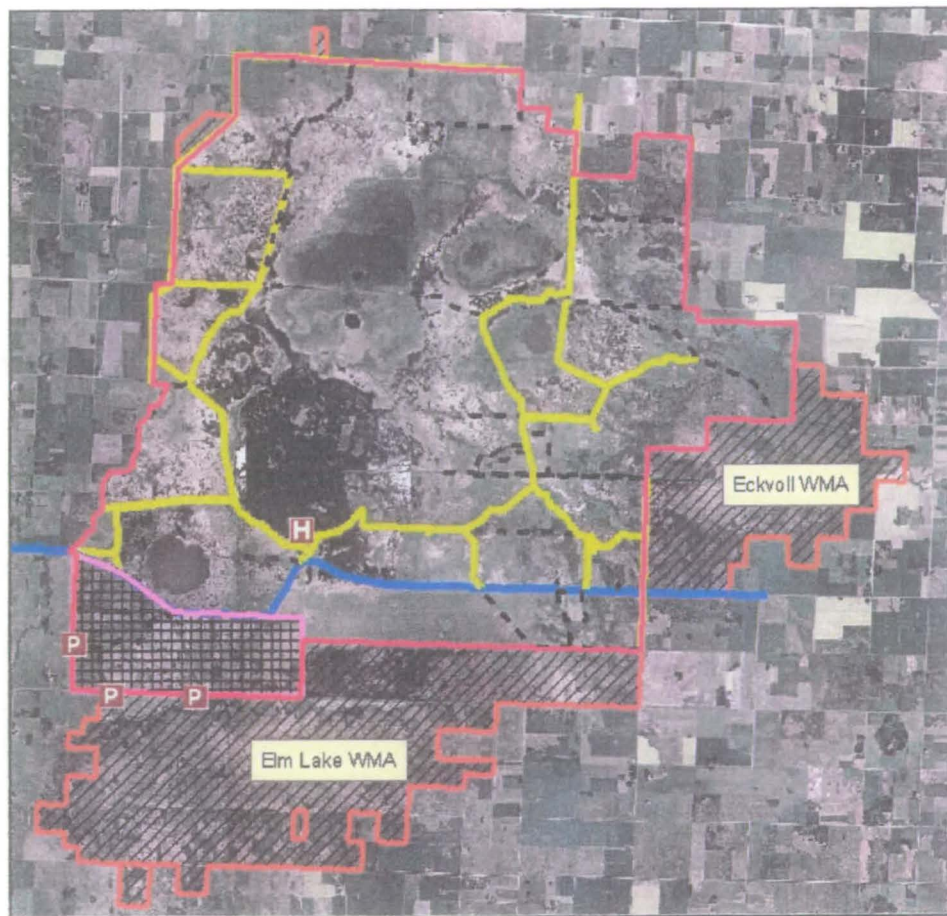
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Figure 8

Youth Waterfowl Hunting Area

Agassiz National Wildlife Refuge



-  Youth Waterfowl Hunting Area
-  Youth Waterfowl Hunting Parking
-  Refuge Headquarters
-  Refuge Boundary
-  State Management Areas
-  Refuge Roads - Closed to Motorized Vehicles
-  Seasonal Roads - Closed to Motorized Vehicles
-  County 7

0 1.5 3 6 Miles



D. Consultation and Coordination with the State

Throughout the CCP process, representatives from the MNDNR were consulted on all aspects of management including hunting opportunities. State participation and comments significantly impacted the 'draft' CCP objectives for hunting. Based on the MNDNR's comments on the 'draft' CCP, sharp-tailed grouse hunting was added.

Designation of the Youth Deer and Waterfowl Hunting Areas and access for the archery/muzzleloader deer and grouse hunting areas were mutually agreed upon by the Thief River Wildlife Area Manager, MNDNR, and refuge manager. Discussions on how to manage the hunts by providing staff have also occurred.

Justification for Hunting Season Dates: The following hunts will follow MNDNR hunting season dates:

- Deer - Firearms (general)
- Deer – Muzzleloader
- Deer – Youth (as long as it does not exceed current season length of 1 weekend in October)
- Waterfowl – Youth (weekend in September)

The following hunts will NOT follow the MNDNR hunting season dates and will have a reduced season length as follows:

Table 2. Refuge Hunting Season Lengths

Type of Hunt	Agassiz NWR Season
Deer – Archery	During & after deer firearms – Dec 31
Ruffed Grouse	During & after deer firearms– Jan 1
Sharp-tailed Grouse	During & after deer firearms–Nov 30

There are three main reasons for the reduced hunting season lengths identified in Table 2.

- **Hunter Safety/Fall Prescribed Burning** – Agassiz NWR has a very aggressive spring and fall prescribed burning program. The fall burning program is receiving more emphasis based on habitat results. Agassiz burn units vary in size from 30 acres to 5,000, averaging about 1,000 acres in size. Often times the decision to burn is made during the morning of the burn; therefore, warning hunters or posting the area the night before is not feasible. Fall burning typically takes place from September up to the Deer Firearms Season. On rare occasions it has occurred after deer firearms season. Parked vehicles are not a reliable indication of whether or not hunters are in the area. Hunters might walk-in from boundary roads, neighboring properties, or be dropped off.

Disturbance to Migratory Birds – One of the primary purposes of Agassiz NWR is to serve as a resting and feeding area for migratory birds. Peak

migration occurs in October, and by the time of the Deer Firearms Season, most migrants have moved on.

- **Waterfowl Banding Goals** - Agassiz NWR has a quota to band 1200 mallard per year. Birds are baited into sites and rocket nets are used to capture the birds. This activity occurs during the month of September. There are three banding sites which are located on interior refuge roads. Two sites, Parker and Tamarac Pools, are located on the west side of the refuge. The Mud River Pool site is on the east side of the refuge. Birds will not come into the area if there is disturbance.

E. Law Enforcement

All applicable State and Federal regulations will be enforced, along with Special Refuge Regulations outlined in Section V11 A.

Agassiz NWR does not have staff with law enforcement (LE) authority. The Refuge will rely on the Zone Law (LE) Officers and State Conservation Officers to enforce federal, state and Refuge specific laws and rules.

At this time the closest Federal Officer is located in Detroit Lakes, over two hours distance. Pre-season coordination and a commitment by Refuge LE Officers to cover the refuge, especially with the new hunting opportunities, is mandatory. Along with this commitment of time there must be a funding commitment.

F. Funding

Initial costs for the new hunting opportunities are estimated at \$10,000. These costs include boundary posting, gate installation, other signage, hunting brochures and surveys.

Annual station (refuge) costs will be fairly stable after the first year of initiation of the new hunts and are estimated at \$13,500 per year; this does not include LE costs. Annual expenses include maintenance of boundary posting and gates, putting signs up and taking them down, hunting brochures and hunter surveys, salaries for gate opening and closures, and fuel.

The hunting program will increase the need for law enforcement patrols. Currently, there is no staff at Agassiz NWR with LE authority. The closest Federal LE officer is over two hours distance. No funds are allocated to the station to cover the cost of LE coverage for the existing hunting program, which is a nine day season. Per diem and over-time come from station budgets. Consequently, due to budget constraints and multiple commitments by LE officers, only the weekends and holiday have been covered. To adequately cover the new hunting opportunities it is estimated \$5,000 annually will be needed. This is based on the average cost of \$30/hour for salary for an LE officer, plus overtime, per diem and vehicle expense. These funds need to be allocated to the Federal LE program or to Agassiz NWR.

Summary of cost for Hunt Program:

▪ Initial	\$10,000
▪ Annual Refuge Costs	\$13,500
▪ LE Annual cost	\$ 5,000

Wildlife population surveys are currently being conducted and would occur with or without a hunting program. The surveys directly related to hunted species cost about \$9,000 annually for salaries and fuel. This does not include the cost for the Regional Pilot's salary and plane expenses for the three aerial flight surveys.

VI. Measures Taken to Avoid Conflicts with Other Management Objectives

A. Biological Conflicts

Endangered/Threatened Species: There are no federally endangered plants or insects on the Agassiz NWR.

The bald eagle (*Haliaeetus leucocephalus*) and gray wolf (*Canis lupus*), both federally listed threatened species, utilize the Agassiz NWR.

- **Bald Eagles:** There are four active nests on the refuge and the refuge is used by migrating eagles. Usually, by mid-November most birds have moved off the refuge.
- **Gray wolves:** There are two established pack territories on Agassiz NWR. The Elm Lake pack is located in the southern half of the refuge and the Golden Valley pack is located in the northern half. Pack size varies from 2 to 11 animals. Wolves are year round residents.

The existing and new hunting opportunities pose a minimal threat to bald eagles or their nesting trees. There have been no known incidents of bald eagles killed on the refuge due to hunting activities.

The hunting programs pose no threat to wolf habitat. Illegal killing of wolves has been documented on lands outside of the refuge when radio collared wolves were being tracked as part of a study, 1997 to 1999. Two of these illegal kills took place during the deer-firearms season.

The addition of mentored youth hunts, deer archery and muzzleloader hunting, and grouse hunting should cause little increase to the threat of illegal killing of wolves due to the presence of a mentor, and limited access during late season hunts.

Law enforcement patrols and interpretive material will help prevent potential negative impacts that could result from the existing hunting season and newly proposed seasons.

New brochures will emphasize that there are enough deer for both hunters and wolves to harvest, the importance of wolves to the wildlife integrity of the refuge, and that their presence enhances the hunting experience for many.

A Section 7, Appendix B, was completed for these two species.

Migratory Birds: The primary purpose for the establishment of Agassiz NWR was migratory bird management. The existing and new hunting programs pose no threat to nesting, feeding or migratory habitat.

There has never been a Waterfowl Season on the Agassiz NWR. The Youth Waterfowl Hunt, which may be 1 or 2 days during a weekend in September, will be confined to the Farmed Pool Unit. This unit is 4,200 acres in size and adjoins a popular waterfowl hunting area, Elm Lake WMA. Opening this area will reduce crippling losses as the NWR/WMA boundary bisects Farmed Pool. Opening this area will also spread young hunters out over a larger area. The remainder of the refuge will remain closed to all waterfowl hunting. The short duration of this season and the limited area poses no threat to the waterfowl production goals of the refuge.

The Youth Deer Hunt, which is a 2 day season during a weekend in October, will be confined to an area almost 15,000 acres in size on the north eastern quarter of the refuge. Hunter Use is anticipated to be light. The hunt poses no threat to migratory bird habitat. There will be some disturbance to migratory birds. Some waterfowl may be pushed into an adjoining state hunting zone. However, $\frac{3}{4}$ of the refuge will be closed to this activity.

The deer – archery/muzzleloader and grouse hunts will not begin until the deer firearms season during the first week in November. By this time the majority of migratory birds have moved out of the area. These hunts pose no threat to migratory bird habitat or migratory birds.

Habitat & Wildlife Management Activities:

Prescribed burning during the fall is an important habitat management tool. This activity takes place primarily from September up to the deer firearms season in early November. Prescribed burning can take place on weekend if good conditions occur. Rarely do burning opportunities exist after the deer firearms season.

The youth waterfowl hunt occurs on one weekend in September and the youth deer hunt one weekend in October. No burning will occur in these areas during the hunt seasons. No burning occurs during the deer firearms season except in Closed Areas.

Burn units range in size from 30 acres to 5,000 acres. The terrain is flat with large expanses of cattail and willow shrub. Fall burning is one of the main reasons deer-archery/muzzleloader and grouse hunting seasons on the refuge are delayed until the deer-firearms season. If burning opportunities present themselves after the deer-firearms season hunter safety will be given the top priority.

Firewood cutting is a habitat tool utilized on the refuge. Wood cutters are prohibited from all activity during the deer-firearms season only. Hunting activity after the deer-firearms season is anticipated to be light and wood cutting will continue. Wood cutters will be alerted to hunting season dates and required to wear hunter orange until the end of the muzzleloader season.

Hydro-axing/Mowing by refuge staff and contractors usually begin this activity in mid to late December through mid-March. Staff and contractors will be notified of hunting season dates.

Trapping is a management tool utilized on Agassiz NWR. Trappers are prohibited from trapping during the deer-firearms season. Hunting activity after the deer-firearms season is anticipated to be light and trapping will continue. Trappers will be alerted to hunting season dates and required to wear hunter orange until the end of the muzzleloader season.

Through hunter contacts, brochures, and signs hunters will be alerted to these refuge management activities that will be occurring during hunting seasons.

B. Public Use Conflicts

In general, few public use conflicts or conflicts between hunters versus non hunters are anticipated. State Wildlife Management Areas adjoining the Agassiz NWR permit concurrent hunting of several wildlife species and non hunter access without conflict. Non hunter use is very low during hunting seasons. Local populations are very aware of various hunting seasons and take necessary precautions.

There are two areas where concurrent use between hunters and non-hunters will occur for a brief time. They are the Auto-Tour Route and Hiking Trails. See Figure 9.

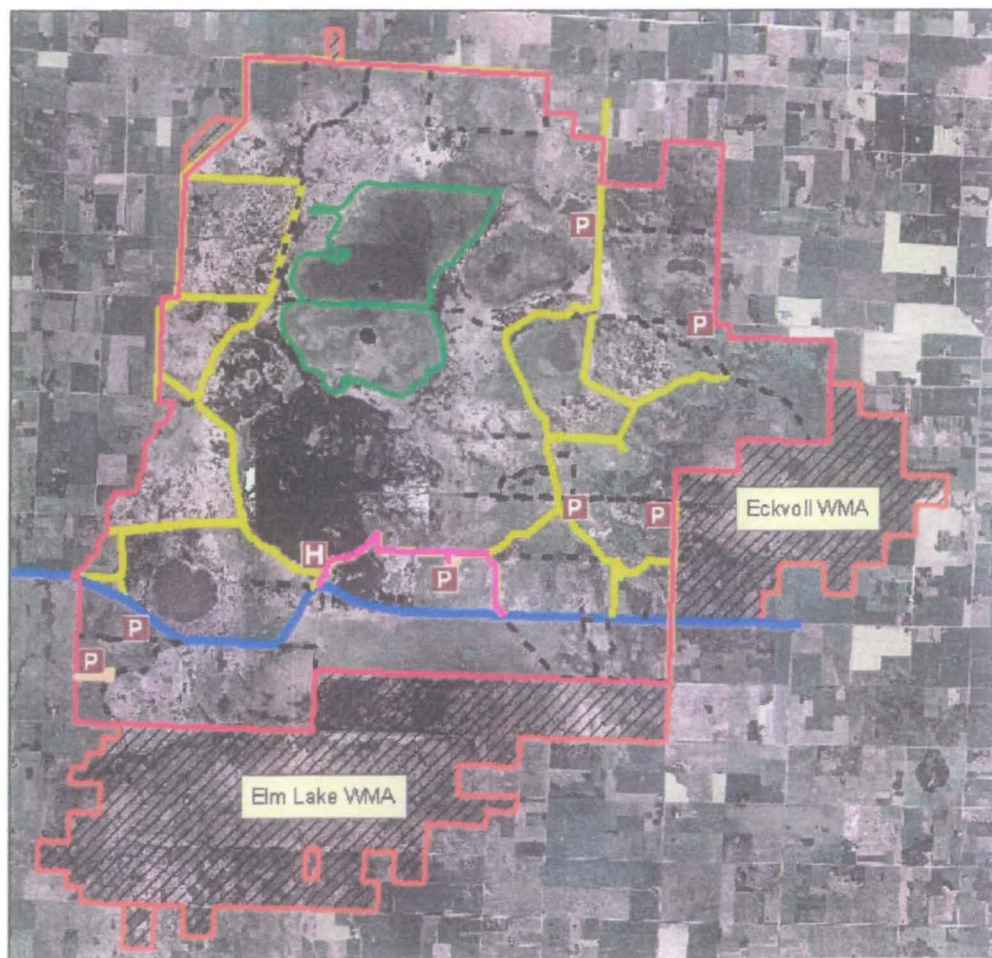
Auto-Tour Route: This four mile route is open from May to the end of October weather permitting. See Figure 8. The Youth Deer Hunt, to date, has occurred during the last weekend of Minnesota Education Association (MEA) week, which is usually the third weekend in October. By this time of year, use of the Auto-Tour Route is greatly reduced, with 0 to 4 cars/day. A portion of the Auto-Tour Route, less than a mile, will be used by Youth Deer Hunters to access/exit the Hunt Zone from the south. See Figure 7, pg 15. **No hunting will occur within 1 mile of the Auto-tour Route.**

The Auto-Tour Route during the non-hunting season is a one way road. During the youth deer hunt the last section will be two-way. Signage will direct hunters and non-hunters. During the first couple of hunting seasons, refuge staff will be on site to monitor effectiveness and or conflicts. No conflicts are anticipated, but if they arise and appear to be serious another entry route going past the maintenance shop will be explored.

Figure 9

Auto-Tour Route and Hiking Trails

Agassiz National Wildlife Refuge



- Auto-Tour Route
- Hiking Trails
- P Parking
- H Refuge Headquarters
- Refuge Boundary
- Wilderness Area
- State Management Areas
- Refuge Roads
- Seasonal Roads
- County 7

Rodahl Hiking Trail: This is a newly established trail which will be completed by summer 2006. The trail is located in the southwest corner of the refuge. It is 0.6 miles long beginning at the western boundary and ending at Farnes Pool. A parking lot, outdoor facility and single panel Kiosk will be located at the trail head. This trail is located in the Youth Waterfowl Hunting Area, deer-firearms, deer-archery/muzzleloader and grouse hunting area.

The trail will be posted closed to non hunters during the deer-firearms season and Youth Waterfowl Hunt. The trail will be open after deer-firearms as hunter use and hiking use in the area is anticipated to be low. Non-hunters will be advised on Kiosk of hunting activity and to wear hunter orange clothing.

Maakstad Hiking Trail & Parking Area: This is a long established trail, 0.25 miles in length. To our knowledge it has not been used by the non-hunting public during the deer-firearms season because access via the Auto-Tour Route is closed at the end of October. The Auto-tour Route is open at the east entrance for hunter access and parking during the deer-firearms season. With the additional hunts this will remain open through January 1; however, snow removal will not occur.

The trail will be posted closed to non hunters during the deer-firearms season and deer muzzleloader season. The trail will be open to non-hunters after deer muzzleloader season. Hunter use after deer-firearms is anticipated to be low and hiking use is expected to be zero. Non-hunters will be advised on Kiosk of hunting activity and to wear hunter orange clothing.

Headquarters Trail: This 0.5 mile trail is located at the Headquarters which is in a closed area. This will remain open to the non-hunting public. There is very little use of this trail during the deer-firearms season. After ice-up there is basically no use of the trail until spring.

Planned Winter Ski/Snowshoe/Hiking Trails: This type of activity was approved in the CCP. Areas will be identified in the Visitor Services Plan scheduled for completion in 2007. Winter trail use will be open after the deer-muzzleloader season ends. This season usually ends the first week in December. Ruffed grouse hunting will be open until January 1, but use is anticipated to be very low. Trail users will be notified of any hunting activity through brochures or signs at trail heads.

C. Administrative Conflicts

Administrative conflicts with the new hunts will primarily involve the added burdens associated with new hunting programs – educating the public, responding to inquiries, placing boundary hunt signs and removal, adjusting work schedules to open/close gates and monitor hunts. Both youth hunts occur at an extremely busy time of year. They occur during the end of the fiscal year, fall burn season, waterfowl banding, and the end of the construction season. Agassiz NWR staff are logging many hours of comp time

during this time at unusual hours. Additional staff, volunteers, MNDNR staff will be needed to prepare and run each hunt. The CCP recommends coordination with local conservation groups to assist, which will be done.

VII. Conduct of the Hunt

A. Refuge-specific Hunting Regulations

Deer-Firearms/Archery/Muzzleloader & Grouse Hunting During Deer-Firearms

Season: Refuge-specific regulations pertaining to the hunt are as follows.

- 1) All applicable state and federal regulations apply to all hunts.
- 2) Grouse and archery-deer season openings will be delayed until opening of the deer-firearms season.
- 3) Vehicles and hunters may not enter the refuge before 5:30 am and must leave the refuge each day as soon as possible after legal hunting hours.
- 4) Retrieval of crippled animals in Closed Areas is permitted only when accompanied by a Refuge employee or State Conservation Officer.
- 5) Only non-toxic shot may be used by grouse hunters.

Permitted Activities

- 6) Driving is permitted only on roads designated as open for travel.
- 7) Parking is permitted in designated parking lots and along roadsides as long as road access is not restricted.
- 8) Use of non-motorized boats/canoes is permitted.
- 9) Bicycles are permitted on all roads and trails.
- 10) Wheeled non-motorized game retrieval carts may be used except in the Wilderness Area.
- 11) Portable stands or blinds that are removed at the end of each day are permitted.
- 12) Bird dogs are permitted for grouse hunting.

Prohibited Activities

- 13) ATV, snowmobile and other off-road motorized vehicles are not permitted.
- 14) Parking in front of locked gates is not permitted.
- 15) Entry into Closed Areas for any reason.
- 16) Wheeled non-motorized game retrieval carts are not permitted in the Wilderness Area.
- 17) Spotlighting at any time is not permitted.
- 18) Parking in front of locked gates is not permitted.
- 19) Shooting from gravel road surfaces is not permitted, even if closed to traffic.
- 20) Target, skeet, trap and indiscriminate shooting are prohibited.
- 21) Use or possession of alcoholic beverages while hunting is prohibited.
- 22) Overnight camping, parking and open fires is prohibited.
- 23) Leaving stands or blinds overnight is prohibited.
- 24) Hunting of unauthorized species is prohibited.

Deer - Archery/Muzzleloader & Grouse Hunting After Deer-Firearms Season: All of the same refuge specific regulations apply as listed above. Vehicle access will be more restrictive than during the deer-firearms season. Refuge roads opened for vehicle travel will not be plowed.

Youth Deer Hunt: All of the same refuge specific regulations apply as listed above except #2. Youth hunters and vehicles may not enter the refuge before 6:00 am.

Youth Waterfowl Hunt: All of the same refuge specific regulations apply as listed above. There are no designated open roads in this unit.

B. Pre-Hunt Scouting

Pre-hunt scouting is permitted the day before the deer-firearms and youth deer hunt from 8am to 3pm. Pre-hunt scouting is open to deer-muzzleloader hunters during daylight hours during and after the deer-firearms hunt. After the deer-firearms season, vehicle access will be more restrictive especially to the interior of the refuge.

C. Anticipated Public Reaction to the Hunt

During the CCP public comments and responses to hunting produced negative reactions from the non-hunting public and some refuge visitors. Some of the comments were from animal rights groups or private citizens opposed to hunting on refuges. Others were from the wildlife viewing public (birders) who want to have at least one place to observe wildlife where they do not have to worry about safety. There were also some negative comments from some hunters, especially regarding bird hunting and more specifically waterfowl hunting. They felt there are plenty of State and private waterfowl hunting areas adjacent to the refuge and in northwest Minnesota, and Agassiz NWR should remain closed as a sanctuary. They also felt that since grouse habitat was so limited and there were better areas off the refuge why bother to open the refuge at all.

There were also many comments in favor of more hunting opportunities in addition to the deer-firearms season.

All comments were seriously considered. Hunting opportunities as outlined in this plan provide a balance between non-hunter and hunter use of the refuge and refuge management needs. Visitor complaints will be dealt with on a case-by-case basis and will provide an opportunity to inform and educate visitors about hunting as a compatible refuge use and management tool.

D. Hunter Application and Registration Procedures

At this time no Refuge-specific registration or application process will be required. The Refuge will be opened to all people with a valid Minnesota Hunting license for the species being hunted. If wildlife populations warrant, or the number of hunters detract from the

quality of the hunt or become a safety issue, the Refuge will develop a permit system to control the number of hunters allowed at any one time.

Hunters will be required to comply with rules of the State of Minnesota for registration of game taken.

E. Description of Hunter Selection Process

When a permit system is warranted, it will be coordinated with the MNDNR so that the Minnesota Electronic Licensing System can be utilized for the selection process.

F. Media Selection for Announcing and Publicizing the Hunt

The Refuge has a standard list of local media contacts for news releases. A news release announcing hunting opportunities will be sent out approximately one month prior to the first hunt. Hunting opportunities will be updated in the Minnesota Hunting and Trapping Regulations Handbook published yearly.

Annual updates and changes to the Agassiz NWR hunting program will be published in the Federal Register.



VIII. References

Agassiz National Wildlife Refuge, Comprehensive Conservation Plan. 2005. U.S. Fish and Wildlife Service, http://library.fws.gov/CCPs/agassiz_final.pdf

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Assessing the Potential, Actual, and Perceived Risk that Gray Wolves, *Canis lupes*, Pose to Livestock in Northwestern Minnesota. 2002. Andreas S. Chavez. Masters Thesis, Utah State University, Logan, UT.

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Parasite-Mediated Decline in a Moose Population at the Southern Range Periphery. Eric W. Cox, Dennis L. Murray, Warren B. Ballard, Heather A. Whitlaw, Mark S. Lenarz, Thomas W. Custer, Terri Barnett, Todd K. Fuller. Manuscript submitted December 23, 2004 to The Wildlife Society's publication Wildlife Monographs.

Status of Wildlife Populations, Fall 2003. Division of Wildlife, Minnesota Department of Natural Resources. 2003. State of Minnesota.

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Minnesota grouse and hare report 2004, Minnesota Department of Natural Resources, <http://www.dnr.state.mn.us/hunting/smallgame/index.html>.

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Appendix A

Compatibility Determination

Compatibility Determinations for Agassiz National Wildlife Refuge

Regional Office Review Documentation and Routing Slip

Compatibility Determination forms, and appropriate NEPA documentation, are completed by the Project Leader in accordance with policy and following suitable public review and comment. Project Leader will sign the compatibility determination.

Are CDs part of a CCP? Yes X No

Route to	Title	Responsibility	surname/date
1	Refuge Historic Preservation Officer:	Reviews for NEPA compliance, cultural resource protection issues, and completeness of documentation.	Deborah, 7-14-05
2	Chief, Visitor Services and Outreach:	Reviews for consistency with public use policies, and consistency with station public use management plans. Alerts Supervisor if precedent setting.	Stank 7/15/05
3	Regional Refuge Biologist:	Reviews for biological soundness and consistency with principles of fish and wildlife management, and consistency with station habitat and wildlife management plans.	
4	Refuge Supervisor:	Reviews for overall consistency with Refuge Purpose, Mission, Goals and Objectives, and for overall clarity of reasoning and sound professional judgement.	Jack 7-18-05
5	Division of Conservation Planning	If draft CDs are part of a draft CCP, hold signed CDs; then forward them with the final CCP to the Regional Chief.	
6	Regional Chief, National Wildlife Refuge System:	Reviews for overall compatibility with Refuge System Mission, Regional consistency, and adherence to Service Policies. Alerts Regional Director to sensitive or potentially controversial decisions.	At M. Z... Signs CD 7.18.2005
Last	Regional Historic Preservation Officer:	Signed original is returned to field station. Copy is filed with RFO files.	Files copy of CD

CD Titles: Hunting
Firewood Cutting/Timber Harvest
Trapping of Furbearers
Environmental Education and Interpretation
Wildlife Observation and Photography
Haying
Research

COMPATIBILITY DETERMINATION

Use: Hunting

Refuge Name: Agassiz National Wildlife Refuge

Establishing and Acquisition Authorities: Executive Order 7583 on March 23, 1937, Migratory Bird Conservation Act, Refuge Administration Act.

Refuge Purpose(s):

"... as a refuge and breeding ground for migratory birds and other wildlife." Executive Order 7583, dated March 23, 1937.

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

"... conservation, management, and ... restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans..." 16 U.S.C. § 668dd(a)(2) (National Wildlife Refuge System Administration Act).

National Wildlife Refuge System Mission: The mission is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.

Description of Use:

What is the use? Hunting of game as an activity conducted by the general public under regulation authority of the National Wildlife Refuge System Improvement Act and the National Wildlife Refuge System. The Agassiz Refuge is currently opened annually to white-tailed deer hunting during the State of Minnesota's firearms season. The refuge and bordering State Wildlife Management Areas are designated as one management unit, Area 203, for firearms-deer hunting. We propose to extend take methods to include archery and primitive firearms (muzzle-loaders) during and after the state deer/firearms season. We also propose to open a portion of the Refuge to a youth white-tailed deer hunt during the state youth season (one weekend in October). These additional hunting opportunities will adhere to state seasons and regulations.

No hunting of migratory birds and upland small game has occurred on the refuge since its establishment in 1937. However, upon revision of the Refuge Hunt Plan, we propose to allow the hunting of ruffed and sharp-tailed grouse during and after the state firearms/deer season following state regulations. We also propose to open the Farnes Pool area to waterfowl hunting to young hunters during the state youth season. The public demand for hunting opportunities for these species is primarily satisfied on 21,000 acres of contiguous State Wildlife Management Areas and we expect very limited use of Refuge lands.

The Agassiz Refuge is currently open to moose hunting when populations are sufficient. The moose population, after drastic declines in the 1990s, has been stable at a very low level of approximately 75 animals. Hunting has not taken place since 1993 and will not resume until the population exceeds 200.

The refuge deer herd has been on a steady increase since 1997 after two devastating winters. In February 2002 the refuge deer population was estimated at 1,600, for a density of approximately

12 per square mile, and in February of 2003 the estimate was 1,911 for a density of 15 per square mile. Ninety-three deer were harvested in the fall of 2002 with a hunter success rate of 25 percent and 219 were harvested in 2003.

Based on studies and long-term experience with deer herd management by MNDNR, 15-18 per square mile is the optimal population density or carrying capacity of white-tailed deer in habitat characteristic of this region. At present, the refuge's deer herd is healthy and increasing and may reach this optimum level in any given year.

Where is the use conducted? Deer hunting by the general public will be conducted under a hunting management program. Hunting activities will be planned and operated with the Refuge's primary objectives, habitat management requirements, huntable population surpluses, and safety as the guiding principals. Designated hunting areas will be evaluated and identified within the hunt management plan. In general, hunter access is provided at widespread locations along the perimeter and interior refuge road system.

How is the use conducted? Deer, ruffed and sharp-tailed grouse, and youth deer and waterfowl hunting will be conducted under state and refuge-specific federal regulations. A permit system and antlerless deer harvest quota is set based on annual herd population surveys. Hunting activities are intended to meet the National Wildlife Refuge System Improvement Act and some of the Refuge objectives and management goals without adversely affecting the primary objectives and mission of the refuge. Completing this activity under a hunting plan allows the refuge to accomplish its management goals and provide needed safety levels for citizens of the area without adversely affecting refuge habitats and wildlife populations.

When would the use be conducted? The refuge firearms deer hunt occurs in November during the season set by the Minnesota Department of Natural Resources (MNDNR). Archery and muzzle-loader hunting would occur during and after the firearms season. Ruffed and sharp-tailed grouse hunting would also occur during and after the deer/firearms season. A youth deer hunt has been initiated by the MNDNR on state owned lands in Area 203 and is under evaluation. This hunt occurs one weekend in October, prior to the deer firearms season in November. The refuge would follow the state season as long as it remains one weekend. An annual youth waterfowl hunt occurs in September, prior to the general waterfowl season. Details about when, where, and how the new hunts are conducted will be defined in the updated hunt management plan. All hunting activities follow applicable state laws, except where the Refuge administers further restrictions to ensure a quality hunt and visitor and staff safety. Hunting activities can only occur in designated areas listed in the hunt management plan.

Availability of Resources:

Approximately \$20,000 of staff time will be required to administer and manage these activities. Refuge staff must adjust their work schedules to accommodate hunters early and late each day and on weekends during the firearms season and the additional archery and muzzle-loader hunts will increase this workload. Overhead expense including signs, leaflets, parking lot/portions of roads maintenance (snow removal) and equipment is estimated to be \$7,000, and per diem for law enforcement support is \$3000 for a total estimated cost of \$30,000 to administer the program. Based on a review of the current refuge budget, additional funding of \$21,500 will be required to ensure compatibility and to administer and manage the hunts. The Comprehensive Conservation Plan identifies the long-term need for a 0.5 FTE Law Enforcement Officer.

Anticipated Impacts of the Use: This activity has shown no assessable environmental impact to the refuge, its habitats or wildlife species. Concerns primarily center on the possibility of impacting sensitive non-target species through excessive disturbance. Visitor safety and law enforcement issues are also important. Providing restrictions that limit access to specific refuge locations will minimize disturbance and unsafe vehicle access. Disturbance to wildlife is limited to occasional flushing of non-target species, such as moose and wolves, during the open hunting season. Nearly all migratory waterfowl have left the refuge prior to the mid-November firearms/deer hunt. The hunt follows all applicable laws, regulations and policies; including, 50 CFR, National Wildlife Refuge System Manual, National Wildlife Refuge System goals and objectives, and Agassiz NWR goals and objectives. This activity is also compliant with the purpose of the Refuge and the National Wildlife Refuge System Mission. Operating this activity does not alter the refuge's ability to use prescribed burning as a tool to meet habitat goals, provides for the safety of the area's citizens, and supports several of the primary objectives of the Refuge.

Public Review and Comment: This Compatibility Determination was prepared concurrently with, and was part of, the Draft Comprehensive Conservation Plan (CCP) and Environmental Assessment, which was announced in the Federal Register and available for public review. Public review and comments (written and oral) were solicited during the planning process, open houses, and the CCP 30 day comment period.

Determination:

☐ Use is not compatible.

☒ Use is compatible with the following stipulations.

Stipulations necessary to ensure compatibility: To ensure compatibility with National Wildlife Refuge System and Agassiz NWR goals and objectives the activity can only occur under the following stipulations:

1. Appropriate State hunting license and harvest permits are required for deer, moose, and ruffed and sharp-tailed grouse, and all state hunting regulations apply unless otherwise stated in the refuge hunt plan;
2. Youth waterfowl and white-tailed deer hunts will not exceed one weekend in length;
3. Hunting hours are as determined by state regulations;
4. Deer and moose harvested must be registered at MNDNR check stations in accordance with State regulations;
5. The refuge will use the MNDNR antlerless harvest permit system to regulate antlerless deer harvest;
6. Continue annual deer and moose surveys and use of deer population modeling by MNDNR to ensure population densities are within target levels;
7. Monitor wolf populations to determine required prey base;
8. Annually review all hunting activities and operations to ensure compliance with all applicable laws, regulations, and policies.

Justification:

This use has been determined compatible provided the above stipulations are implemented. This use is being permitted as it is a priority public use and will not diminish the primary purposes of the refuge. This use will meet the mission of the NWRS by providing renewable resources for the benefit of the American public while conserving fish, wildlife and plant resources on these lands.

Without a hunting program specifically used as a management tool, the refuge moose and deer population may adversely affect plant communities, and hence alter ecological diversity and succession. This may result in significant negative impacts on both plant and other animal communities including some of special concern or of Service trust responsibility. This impact has been well documented and accepted through research over a period of many years. A list of literature citations used to develop this compatibility determination is attached. The white-tailed deer hunting plan objectives will ultimately result in a deer density of 15 to 18 deer/mi². This deer density will maintain the refuge deer population at the upper limit of a reasonable equilibrium with its environment as estimated for the Midwest agricultural region.

Signature:

Refuge Manager: Margaret H. Anderson 6.30.05
(Signature and Date)

Concurrence:

Regional Chief: John M. Zully 7.18.2005
(Signature and Date)

Mandatory 10 or 15 year Re-evaluation Date: 2020

Appendix B
Intra-Service Section 7

Intra-Service Section 7 Biological Evaluation Form

Region 3

Originating Person: Margaret M. Anderson

Date Submitted: December 7, 2005

Telephone Number: 218-449-4115 x210

I. Service Program and Geographic Area or Station Name: Agassiz National Wildlife Refuge

II. Flexible Funding Program (e.g. Joint Venture, etc) if applicable: N/A

III. ~~Species/Critical Habitat:~~ List federally-listed, proposed, and candidate species or designated or proposed critical habitat that occur or may occur within the action area:

Bald Eagle (*Haliaeetus leucocephalus*): Four active nests and migratory use.

Gray Wolf (*Canis lupus*): Two pack territories; year-round use.

IV. Location: Location of the project including County, State and TSR (township, section & range):

Agassiz National Wildlife Refuge, Marshall County, MN

Mud Lake TWP: T156N R41W, All sections

East Valley TWP: T156N R42W Sections 1,2,3,10 - 15, 22 - 28, 33 - 36

Agder TWP: T155N R42W, Sections 1,2,3,4

Eckvoll TWP: T156N R40W, Sections p4,5,6,7,8,p9 (p=part of)

Rollis TWP: T157N R40W, Sections 19, 30, 31

Whiteford: T157N R41W, Sections 15 - 23, p24, 25 - 36

Cedar TWP: T157N R42W, Sections 13, p23, 24, 25, 26, 35, 36

I. Project Description: Describe proposed project or action or, if referencing other documents (e.g. the Grant Proposal), prepare an executive summary (attach additional pages as needed):

Expanding hunting opportunities on the Agassiz NWR as approved in the 2005 Comprehensive Conservation Plan (CCP). Prior to the 2005 CCP, the refuge was only open to deer firearms hunting, which is a 9 day season during the first full week in November. With the approval of the CCP, hunting opportunities will be expanded to include the following:

- A youth deer hunt (state season - not to exceed one weekend in October)
- A youth waterfowl hunt (state season, 1 or 2 days during a weekend in September)
- Archery-deer hunting (during/after deer firearms season)
- Muzzle loader deer hunting (during/after deer firearms season)
- Ruffed and Sharp-tailed grouse hunting (during/after deer firearms season)

Table 1 – Wildlife Species Opened for Hunting on Agassiz NWR *from 2005 CCP*

Species	General Dates of Hunt
White-tailed Deer:	
Youth Hunt	October (1 weekend)
General Firearms	November (9 days -1 st full week in Nov)
Archery	November- December (during & after deer-firearms)
Muzzleloader	November -December (~15 days beginning end of Nov)
Upland Game:	
Ruffed Grouse	November–December (during & after deer-firearms)
Sharp-tailed Grouse	November (during & after deer-firearms)
Waterfowl:	
Youth Hunt	September (1 or 2 days)
Moose:	December – early; CLOSED until populations recover

Deer – archery/muzzleloader and grouse hunting will be primarily a walk-in hunt after the deer firearms season. The entire refuge will be open except two closed areas around administrative buildings.

The youth hunts will be of one or two day duration. The youth deer hunt will be located on the eastern fourth of the refuge, about 14,825 acres. The youth waterfowl hunt will be located in the Farnes Pool Unit, about 4,220 acres.

VI. Determination of Effects:

(A) Description of Effects: Describe the effects of the action(s) on the species and critical habitats listed in item III. For each section 7 determination made below, attach an explanation of such determination for all applicable species or critical habitat. Documentation should include a brief discussion of each of the following: 1) species status - population trends, distribution in action area, 2) habitat status - critical or noncritical; species use such as breeding, feeding in action area, and 3) impacts of the action - how the proposed action will affect species/critical habitat (consider direct, indirect, and cumulative effects). Beneficial and adverse effects, as well as actions to avoid or minimize adverse effects, should be identified (attach additional pages as needed).

See Attachments 1 & 2

VI. ~~Determination of Effects (continued):~~

(B) **Determination:** Determine the anticipated effects of the proposed project on species and critical habitats listed in item III. Check all applicable boxes and list the species associated with each determination.

	Response requested
<input type="checkbox"/> "No Effect" This determination is appropriate when the proposed project will not directly or indirectly affect (neither negatively nor beneficially) individuals of listed/proposed/candidate species or designated/proposed critical habitat of such species. List species applicable to this determination (or attach a list):	____ Concurrence (optional)
<input checked="" type="checkbox"/> "May Affect but Not Likely to Adversely Affect species/critical habitat" This determination is appropriate when the proposed project is not likely to adversely impact individuals of listed species or designated critical habitat of such species. List species applicable to this determination (or attach a list):	____ Concurrence
<input type="checkbox"/> "May Affect and Likely to Adversely Affect species/critical habitat" This determination is appropriate when the proposed project is likely to adversely impact individuals of listed species or designated critical habitat of such species. List species applicable to this determination (or attach a list):	____ Formal Consultation
<input type="checkbox"/> "Not Likely to Jeopardize candidate or proposed species/critical habitat" This determination is appropriate when the proposed project is not expected to jeopardize the continued existence of a species proposed for listing or a candidate species, or adversely modify an area proposed for designation as critical habitat. List species applicable to this determination (or attach a list):	____ Concurrence Informal Conference optional
<input type="checkbox"/> "Likely to Jeopardize candidate or proposed species/critical habitat" This determination is appropriate when the proposed project is reasonably expected to jeopardize the continued existence of a species proposed for listing or a candidate species, or adversely modify an area proposed for designation as critical habitat. List species applicable to this determination (or attach a list):	____ Formal Conference



Signature

Margaret M. Anderson
Refuge Manager

Date: December 6, 2005

Reviewing Ecological Services Office Evaluation (check all that apply):

A. Concurrence ☒

Nonconcurrency _____

Explanation for nonconcurrency:

B. Formal consultation required _____
List species or critical habitat unit

C. Conference required _____
List species or critical habitat unit

D. Informal conference required _____
List species or critical habitat unit

Signature

[Reviewing ES Office Supervisor]

December 16, 2005

Date

Name of Reviewing ES Office

Twin Cities ES Field Office

S:\R3DOCS\NEPA\Forms\Sect77-02.wpd\7 December 2005
JSzymanski\19 June 2002

Bald Eagle (*Haliaeetus leucocephalus*)

The bald eagle (*Haliaeetus leucocephalus*) was federally listed as endangered throughout most of the lower 48 states in 1978, and listed as threatened in Minnesota. All populations were listed as threatened in 1995, and were proposed for delisting in 1999. Currently, the species is still officially listed as a threatened species.

After the bald eagle was listed under the Endangered Species Act (ESA) in 1978, a federal recover team established a goal for Minnesota of 300 active breeding territories by 2000. This goal was reached in 1987. In 2005, the Minnesota Department of Natural Resources surveyed 872 active nests, and increase of 28% from the 2000 survey. During the 2005 survey there were 5 active nests found in Marshall County, 4 of these were located on Agassiz NWR. Prior to the ESA the last nesting attempts by eagles were unsuccessful between 1958 and 1962 followed by a 30 year absence. After the ESA the first successful nesting occurred in 1992 and has increased to four active nests at Agassiz since 2001. All nests are located in large aspen or cottonwood trees. The closest active nest to human activity is located on an island 0.25 miles north of County Road 7, the busiest public road on the refuge. All other nests are located over 0.25 miles from interior refuge roads.

Eagles also utilize the refuge for resting, feeding and as a migratory stop over. There are more fall migrants than spring with average peak numbers of around 20; however, 50+ have been recorded on occasion.

It is anticipated that expanding hunting opportunities at Agassiz NWR would not negatively impact nesting tress. No new parking lots or roads will be established for these hunts. The two youth hunts might provide additional wounded or dead waterfowl or dead deer/gut piles for eagles to feed upon. After the deer-firearms season there are generally very few eagles on station as ice-up occurs. The additional late season deer-archery/muzzleloader and grouse hunts will have no direct impact on bald eagles.

There have been no documented illegal killings of bald eagles on Agassiz NWR. Interpretive materials and education of hunters will aid in preventing the accidental killing of bald eagles during hunting seasons. Refuge and State law enforcement personnel will take all steps necessary to prevent illegal mortality by poaching from taking place.

References:

50 CFR Part 17 Volume 60, Number 133, pp 36000-36010.

Agassiz National Wildlife Refuge, Comprehensive Conservation Plan. 2005. U.S. Fish and Wildlife Service, http://library.fws.gov/CCPs/agassiz_final.pdf

Personal communications. 12-5-05 with Katie Haus, Non-game Biologist, Minnesota Department of Natural Resources. 2005 Nesting Bald Eagle Survey Results in Minnesota.

Gray Wolf (*Canis lupes*)

In 1974, gray wolves (*Canis lupes*) in the lower 48 were listed as endangered under the Endangered Species Act of 1973. In 1978, Minnesota wolves were reclassified from endangered to threatened. The U.S. Fish and Wildlife Service adopted a recovery plan for the Eastern Timber Wolf in 1978, and revised the plan in 1982. The recovery plan set a population goal for Minnesota of 1,251 to 1,400 wolves by the year 2000. The goal was confirmed by a wolf population survey in 1989 that estimated the statewide population at between 1,550 and 1,750. The 2004 Minnesota DNR gray wolf survey estimated the wolf population to be approximately 3,020 wolves within the state. Based on the MNDNR 2003/2004 statewide winter survey of wolf packs and habitat modeling there are 10 wolf packs in Marshall County. These packs are located in the eastern half of the county.

Wolves in Minnesota were typically found in the north/northeastern portion of the state due to the cover and protection afforded by the dense forests and low human population. After protection was established they began re-establishing territories in semi-agricultural areas during the early 1980s. During this time they successfully established themselves at Agassiz NWR. Based on a study conducted from 1997 to 1999, when wolves were captured and radio collared, Agassiz provides two pack territories – the Elm Lake Pack, generally in the southern portion of the refuge, and the Golden Valley Pack, generally in the northern portion of the refuge. Pack size has ranged from 2 to 11. During the study period mortality to refuge wolves occurred as follows:

- Natural causes – mange
- Removal by federal trappers on depredation sites off refuge
- Illegal killing off refuge by - gun during/after deer-firearms season
 - snowmobile

Wolf territories that have been vacated are quickly filled on the refuge. Since wolves have established themselves on the refuge there has been a deer-firearms hunting season and a moose hunting season (this was closed in 1993 due to low numbers). There has been no documented killing of wolves on the refuge by hunters. Hunting activity will have no negative influence on denning sites.

Refuge management recognized the importance of the refuge deer herd to both wolf survival and the hunting public. Desired population goals have been established for deer on Agassiz NWR and are clearly defined in the CCP as follows:

Objective 1.7: Deer Population: Annually, maintain deer population for State Management Unit 203 at densities between 15-20 deer per square mile based on annual winter surveys for a wolf prey base and public hunting opportunities.

Rationale: Based on studies and long-term experience with deer herd management by Minnesota DNR, this is the optimal population density or carrying capacity of white-tailed deer in habitat characteristic of this region. At present, the Refuge's deer herd is healthy and increasing, at a density of approximately 12 per square mile.

Expanding hunting opportunities at Agassiz NWR beyond the existing deer-firearms 9 day season will pose little additional threat to wolves than what currently exists. The expanded deer hunting opportunities are expected to have little effect on the deer herd, with few deer harvested. The proposed seasons, see Table 1, are very short in duration or greatly reduced in length from the State seasons with limited access.

Table 1 – Wildlife Species Opened for Hunting on Agassiz NWR from 2005 CCP

Species	General Dates of Hunt
White-tailed Deer:	
Youth Hunt	October (1 weekend)
General Firearms	November (9 days -1 st full week in Nov)
Archery	November- December (during & after deer-firearms)
Muzzleloader	November -December (~15 days beginning end of Nov)
Upland Game:	
Ruffed Grouse	November–December (during & after deer-firearms)
Sharp-tailed Grouse	November (during & after deer-firearms)
Waterfowl:	
Youth Hunt	September (1 or 2 days)
Moose:	December – early; CLOSED until populations recover

Access during most of the newly proposed seasons will be very limited as compared to access during the deer-firearms season as described below:

- Deer – archery/muzzleloader and grouse hunting season (after the deer-firearms season) will be greatly restricted and primarily walk-in. Refuge roads leading to four parking lots will not be plowed. Hunter numbers are expected to be low.
- Youth duck hunt will be by walk-in or non-motorized boats. Hunter numbers are expected to be low, as evidenced by low numbers on adjoining state lands.
- Youth deer hunt will be restricted to the eastern quarter of the refuge. Hunter numbers are expected to be low, as evidenced by low numbers, less than 5 parties, on adjoining state lands over the past two years.

The youth deer hunt, late season deer-archery and deer-muzzleloader hunts might provide wounded/dead deer and gut piles for wolves to feed upon.

There have been no documented illegal killings of wolves on Agassiz NWR. Illegal killing of wolves off-refuge have occurred along roads within agricultural areas. Under guidelines outlined in the CCP all agricultural fields on the refuge will be phased out and planted to native vegetation providing more cover for wolves and reducing vulnerability to illegal killing in these more open areas.

Attitudes towards wolves by many locals are very negative. Interpretive materials and education of hunters may eventually change these attitudes and prevent the accidental or intentional killing of wolves during hunting seasons. Refuge law enforcement personnel would take all steps necessary to prevent illegal mortality takes place on refuge.

References:

Agassiz National Wildlife Refuge, Comprehensive Conservation Plan. 2005. U.S. Fish and Wildlife Service, http://library.fws.gov/CCPs/agassiz_final.pdf

Assessing the Potential, Actual, and Perceived Risk that Gray Wolves, *Canis lupus*, Pose to Livestock in Northwestern Minnesota. 2002. Andreas S. Chavez. Masters Thesis, Utah State University, Logan, UT.



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Twin Cities Field Office
4101 East 80th Street
Bloomington, Minnesota 55425-1665

DEC 20 2005

To: Refuge Manager, Agassiz National Wildlife Refuge, Middle River, MN

From: Field Supervisor, Twin Cities Ecological Services Field Office, Bloomington, MN

Subject: Section 7 Intra-Service Consultation – Agassiz NWR Expanded Public Hunting Program

We have received your December 7, 2005, request for review and Endangered Species Act concurrence for the proposed expansion of public hunting at Agassiz National Wildlife Refuge (Refuge). The Refuge proposes to offer additional migratory and upland game bird and big game hunting opportunities. A completed Intra-Service Section 7 Evaluation Form with supporting documentation was attached to your transmittal.

As described in your supporting documentation, the federally listed as threatened gray wolf (*Canis lupus*) and bald eagle (*Haliaeetus leucocephalus*) are known to occur or may occur on lands controlled by the Refuge. Your analysis indicates that bald eagle nest trees will not be impacted by the proposal and that all known eagle nests are 0.25 mile or greater from human activity. Furthermore, bald eagles typically depart the refuge following ice-up and would not be present for feeding or resting during the proposed late season hunts. Your analysis indicates that there has been no documented wolf mortalities associated with either the ongoing deer or moose firearm hunting season at the Refuge and that the expanded hunt should have minimal effect on the white tailed deer population a primary prey base for wolves. Based on these findings we concur with your determination that the proposed action may affect, but is not likely to adversely affect, any federally listed or proposed threatened or endangered species or adversely modify proposed critical habitat. This precludes the need for further action on this project as required under section 7 of the Endangered Species Act of 1973, as amended. However, if the project is modified or new information becomes available which indicates that listed or proposed species may be affected, consultation with this office should be reinitiated

We are returning for your final processing a signed and completed Intra-Service Section 7 Evaluation Form for the Agassiz National Wildlife Refuge Public Expanded Public Hunting Program. Feel free to contact Ms. Laurie Fairchild at 612-725-3548 ext 214 if we can provide further assistance.

Attachment

cc: Nick Palaia, Refuges and Wildlife, Regional Office

Annette Jacobson / ACTA

Chavez, A.S., E.M. Gese, and R.S. Krannich. Attitudes of rural landowners toward wolves in northwestern Minnesota. *Wildlife Society Bulletin*. 2005. 33(2):517-527.

Chavez, A.S. and E.M. Gese. Food habits of wolves in relation to livestock in depredations in northwestern Minnesota. *American Midland Naturalist*. 2005. 154:253-263.

Erb, John and Steve Benson. Distribution and Abundance of Wolves in Minnesota, 2003-2004. MNDNR Report.

Personal communications. 12-6-05 with John Erb, Furbearer and Wolf Biologist, Minnesota Department of Natural Resources, Grand Rapids, MN.