



Minnesota Department of Natural Resources  
DNR Wildlife  
940 Industrial Drive S., Suite 103  
Sauk Rapids, MN 56379  
(320) 255-2976 Ext. 225

March 25, 2009

Br. Benedict Leuthner, OSB & Thomas Kroll  
Saint John's Abbey and University  
Quad 128  
31802 County Road 159  
Collegeville, MN 56321-3000

Dear Br. Benedict Leuthner, OSB and Thomas Kroll:

This letter is in response to your request for technical assistance to help alleviate deer problems within the 2,740 acre (~4.3 square miles) Saint John's Abbey property where hunting currently is allowed during special firearm deer hunts. As we are both aware, the deer population within the refuge was quite high during the aerial deer survey conducted in March of 1991, because of a variety of factors including the area being preferred deer habitat especially for its role as a deer wintering area, the protection it affords deer most of the year, and the previous exclusion of deer hunting since it became a state statutory game refuge on August 10, 1933. The most recent aerial deer survey conducted in the February of 2009 shows that Saint John's Abbey deer management plan has made great progress in reducing the herd from when it was first implemented in 1997. Please see the enclosed Saint John's Abbey Aerial Deer Survey Results map from February 5, 2009 for details on the number of deer counted per transect as shown above each transect flown. The majority of the deer seen during the survey were near or outside the boundary edge of Saint John's Abbey.

I encourage you to continue consistently implementing sustainable deer harvests every year to maintain the deer herd levels near or slightly below what they are today. I suggest you continue to focus your deer hunting only on the opening first two days during the regular firearm season to ease the workload in implementing them, minimize impacts to other users, and provide high hunter numbers with high success rates by coinciding with hunting occurring at the same time outside the Saint John's Abbey hunt area. Early hunts are useful in removing resident deer and may be more useful in addressing problems related to summer damage to browse in Saint John's Abbey habitat understory. Considering the land base and the previous year's harvest, a level of 30 plus or minus five deer harvested every year seems to be a reasonable deer harvest goal in your area.

DNR Information: 651-296-6157 • 1-888-646-6367 • TTY: 651-296-5484 • 1-800-657-3929

An Equal Opportunity Employer  
Who Values Diversity



Printed on Recycled Paper Containing a  
Minimum of 10% Post-Consumer Waste

Br. Benedict Leuthner, OSB & Thomas Kroll

March 25, 2009

Re: Saint John's Abbey 2009 Aerial Deer Survey Results & Management Recommendations

Page 2 of 4

If Saint John's Abbey were to abandon the great strides that have been made in deer herd reductions, the deer population would quickly return to levels that have caused so many different and difficult problems on this property in the past. Since the initial implementation of deer management practices within Saint John's Abbey, I expect you are still seeing fewer deer/vehicle collisions around campus; the level of shrub and tree browsing is down; deer concentrations are more dispersed; and in general, you probably have a feeling that overbalance of deer with the available habitat is coming closer to a balance, which is great!

Recently, Assistant Area Wildlife Manager Nicholas Snavely and Conservation Officer Pilot Thomas Pfungsten completed a fixed wing aerial deer survey around 600 feet off the ground at approximately 90 mph on February 5, 2009. They counted 137 deer within a one mile buffer around Saint John's Abbey, which included neighboring properties, covering a total of 17<sup>+</sup> square miles. Current literature indicates that an aerial winter survey where there is complete snow cover in a solid block of wooded habitat will usually account for 50 to 75 percent of the actual number of deer in that area. Using the number of deer counted the current deer population in the area surveyed is estimated at 183 to 274 animals or 11 to 16 deer per square mile. These figures are not unusually high for a deer wintering area and will vary with the seasons. Summer populations are likely significantly lower and wildlife managers have determined that in order for the habitat to begin recovering from over browsing, the summer deer herd should be reduced to 10 to 15 deer per square mile. Once the habitat seems well on its way to returning to normal, the summer herd size may be allowed to increase to 25 to 30 deer per square mile. After that, deer hunts may again be used to maintain a natural balance with available habitat to achieve management objectives. Saint John's Abbey has come much closer to these goals when comparing current population estimates with those taken back on March 4, 1991. At that time, the aerial deer survey conducted by Area Wildlife Manager Mike Maurer resulted in 101 deer being counted within the 2,940 acre (~4.6 square miles) Collegeville game refuge boundary with an estimated winter deer population of 135 to 202 animals or 29 to 44 deer per square mile.

Department of Natural Resources wildlife managers have had a deer management goal for all of KB 418, which Saint John's Abbey mostly falls within, at slightly under 10 deer per square mile considering all habitat types. Over the last ten years, deer harvest within KB 418 has stabilized. Previous to that, it had been rising 5 to 10 percent a year for approximately ten years. Since, the deer population in central Minnesota needs to be trimmed by 30 to 40 percent every fall to keep the deer herd balanced with the available habitat, the harvest of deer within Saint John's Abbey is likely reducing the population by approximately 25 percent, which is a borderline figure for deer herd maintenance. However, the fact that only antlerless deer are being harvested within Saint John's Abbey helps further achieve deer herd control, thus the actual figure may be closer to 30 percent.

Br. Benedict Leuthner, OSB & Thomas Kroll

March 25, 2009

Re: Saint John's Abbey 2009 Aerial Deer Survey Results & Management Recommendations

Page 3 of 4

However, I concur that over-browsing of some plant communities by deer is still a problem in localized areas of the refuge that Land Manager and Arboretum Director Thomas Kroll and I observed on October 25, 2007. An observation of heavy deer browsing on non-preferred trees and shrubs such as oak, spruce, and red cedar indicates lack of quality deer browse and over-population.

To alleviate these problems, I have listed in order of priority, a management scheme that will help reduce the deer browsing problem and also reduce the deer herd to acceptable levels. If only parts of this plan are implemented, then only partial success will result.

The following is a list of wildlife management techniques that will decrease and disperse the deer within the refuge and benefit the plant and animal communities:

1. Continue to allow regulated harvest of antlerless deer whether by firearms and/or bow and arrow to maintain the deer herd population control effort. Public hunting with shotguns has been demonstrated to be the most effective in reducing deer population numbers over very short hunts and provide the least expensive method of managing deer populations in your area, while also minimizing impacts to other refuge users. This could be limited to any number of days during the open season framework, as you have done in the past, but with a focus to harvest deer every year. A continued focus conducting safe hunts within the refuge by requiring the use of elevated stands and prohibition of deer drives may allow increasing effective hunter densities if additional deer harvest per hunt is desired to meet management objectives. The integration of archery deer hunters in areas that would not be suitable for shotgun hunters due to safety concerns may also help reduce deer populations. The OSB and/or Land Manager and Arboretum Director could continue to specify who to allow in the hunt, since the area is considered private land.
2. Provide an alternate food source. Solid block timber harvesting or winter browse cutting would allow succulent young stems to sprout. Contract with a local farmer to plant a 5-10 acre food plot away from problem areas or maintain numerous openings or grassy fields with alfalfa and clover.
3. Fence sensitive areas such as gardens or apple orchards, if you have not already done so. Fence should be chain link or equivalent and at least eight feet high. A five or seven strand electric fence is also quite effective.
4. Use Tubex<sup>®</sup> tree shelters in reforestation efforts, since this proved technique is cost effective over the long run.
5. Install deer crossing signs on roads where deer/vehicle collisions reoccur, if you have not done so already.

Br. Benedict Leuthner, OSB & Thomas Kroll

March 25, 2009

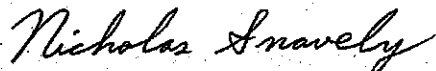
Re: Saint John's Abbey 2009 Aerial Deer Survey Results & Management Recommendations

Page 4 of 4

If these plans are followed, the deer herd within the Collegeville game refuge will over time continue to be reduced and dispersed to acceptable levels and plant communities will be allowed to recover. Please give me a call if you want to discuss these ideas further.

This report satisfactorily fulfills the obligations set forth under the State of Minnesota Income Contract agreement B24503 between Saint John's Abbey and University and the State of Minnesota, acting through its Commissioner of Natural Resources, on this 25<sup>th</sup> day of March, 2009. An invoice has been sent requesting a payment of \$1,000.00 by Saint John's Abbey and University to the State of Minnesota to fulfill all compensation and reimbursements described within this Income Contract agreement.

Sincerely,



Nicholas Snavely  
Assistant Area Wildlife Manager

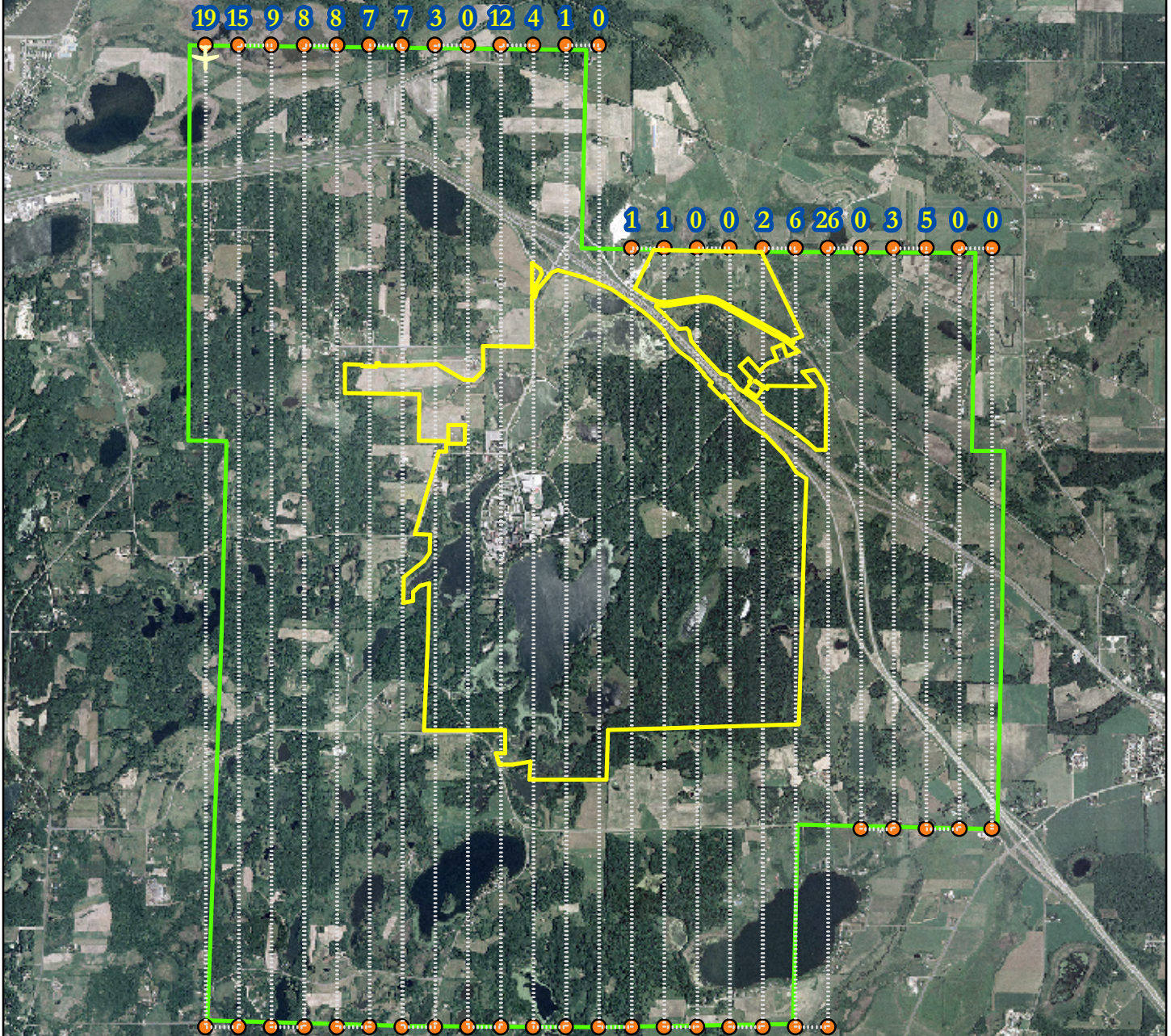
Cc: Fred Bengtson, Area Wildlife Manager

Enclosure: Saint John's Abbey Aerial Deer Survey Results Map

\*Sections in Stearns County, Minnesota that were surveyed for white-tailed deer are as follows:  
Sections 1, 2, 11, 12, 13 and 14, T. 124 N., R. 30 W., Collegeville Township  
Sections 5, 6, 7, 8 and 18, T. 124 N., R. 29 W., Saint Joseph Township  
Sections 31 and 32, T. 125 N., R. 29 W., Saint Wendell Township  
Sections 25, 26, 35, and 36, T. 125 N., R. 30 W., Avon Township

# Saint John's Abbey Aerial Deer Survey Results

February 5, 2009



19 15 9 8 8 7 7 3 0 12 4 1 0

1 1 0 0 2 6 26 0 3 5 0 0

- Deer Survey Flight Route
- Deer Survey Boundary - 17 Square Miles
- Saint John's Abbey Property Boundary ~ 4.3 Square Miles

137 Total Deer Counted

- Deer Survey Flight Waypoints

