



VILLAGE OF RIVER FOREST DEER MANAGEMENT AD-HOC COMMITTEE MEETING

Tuesday, January 19, 2021 – 7:30 PM
Village Hall – 400 Park Avenue – River Forest, IL 60305
2nd Floor Conference Room

AGENDA

Physical attendance at this public meeting is limited to 10 individuals, with Committee members and staff having priority over members of the public. Public comments will be shared with the Committee. You may submit your public comments via email in advance of the meeting to: Sara Phyfer at sphyfer@vrf.us. You may listen to the meeting by participating in a Zoom conference call as follows: dial-in number: 312-626-6799 with meeting ID: 837 7172 3453 or by clicking here: <https://us02web.zoom.us/j/83771723453>. If you would like to speak during public comment, please email sphyfer@vrf.us by 4:00 PM on Tuesday, January 19, 2021. **THAT SAID, PLEASE NOTE THAT THE GOAL IS TO CONDUCT THE MEETING VIRTUALLY, SO ONLY COME TO VILLAGE HALL FOR THE MEETING IF YOU DO NOT HAVE THE CAPABILITY OF PARTICIPATING VIRTUALLY.**

1. Call to Order/Roll Call
2. Public Comment
3. Approval of Meeting Minutes
4. Reports from Subcommittees
5. Old Business
6. New Business
 - a. Vote on Recommendation to Cull Deer
 - b. Vote on Adding Questionnaire Results to Deer Management Committee [Page](#)
 - c. Discussion of Draft Committee Report and Additional Recommendations
 - d. Discussion of Cornell University/The Nature Conservancy [Materials](#)
7. Next Meeting
8. Adjournment

**VILLAGE OF RIVER FOREST
DEER MANAGEMENT AD HOC COMMITTEE
Tuesday, December 15, 2020**

A regular meeting of the Village of River Forest Deer Management Ad Hoc Committee was held on Tuesday, December 15, 2020 at 7:30 p.m. in the Community Room of Village Hall, 400 Park Avenue – River Forest, IL.

1. CALL TO ORDER/ROLL CALL

The meeting was called to order at 7:34p.m. Upon roll call, the following persons were:

Present: Chairperson Tom Cargie, Laurie Gillard, John Roeger, Joel Lueking, Julie Armstrong (*left the meeting at 8:45*), Dawn Mizgala, Marta Kozbur, Ingrid Liu, John Flynn, Katharine Christmas, Dan Hollenbach, Cathleen Hughes, Ron Lemar

Absent: Annette Madden

Also Present: Management Analyst Sara Phyfer

2. PUBLIC COMMENT

None.

3. APPROVAL OF MINUTES

Mr. Hollenbach made a motion, seconded by Ms. Mizgala. to approve the November 17, 2020 meeting minutes.

Roll call:

Ayes: Chairperson Tom Cargie, Laurie Gillard, John Roeger, Joel Lueking, Julie Armstrong, Dawn Mizgala, Marta Kozbur, Ingrid Liu, Katharine Christmas, Dan Hollenbach, Cathleen Hughes, Ron Lemar, John Flynn

Absent: Annette Madden

Nays: None

Motion Passes.

4. REPORTS FROM SUBCOMMITTEES

Chairperson Cargie thanked everyone for their continued work.

5. OLD BUSINESS

a. Discussion of Questionnaire Findings

The Committee discussed the questionnaire findings and the need for additional solutions for residents, including community education and garden/planting recommendations and resources. There was a concern that a community forum piece outlined in the Committee's resolution had gone unfilled. Ms. Gillard offered to research and draft alternatives to culling to provide a thorough report for the community.

Mr. Lueking summarized a conversation he had with Chris Anker from the Cook County Forest Preserves regarding the condition of Thatcher Woods. He reported that Mr. Anker stated there are too many deer for the woods to support and a detailed research project is not necessary and that the browse line is well defined. He defined the browse line as 4-6ft off the forest floor that is gone because the deer have eaten the vegetation. Regarding migration, Mr. Lueking reported that Mr. Anker stated deer typically stay in their own forest area and that research has not shown that more deer would fill in if some deer in Thatcher Woods were to be culled. Mr. Lueking stated this is consistent with his own work in the Wisconsin Department of Natural Resources.

Ms. Christmas stated she had another conversation with Tim Preuss of the Illinois Department of Natural Resources and suggested it would be helpful to get these individuals on a call. She reported that Mr. Preuss stated there could be no culling this winter because the Forest Preserves has not done the research and that he had not heard of a municipality taking on the whole cost of the program. She stated she felt more conversation was needed with the Forest Preserves regarding their role and asked how the Village would rate success with a culling program.

Chairperson Cargie stated his understanding was that Mr. Preuss was prepared to issue the permit last year, and that the knowledge of the Forest Preserves' employees is known but not documented.

The Committee discussed getting to a decision point of action and needing more community education on the issue. The Committee also discussed the concern that many respondents who have a problem are looking for action to be taken.

Mr. Hollenbach asked the members to vote on whether they thought there was a deer problem, and Chairperson Cargie stated he counted 7 yes votes and 5 no votes. Members discussed needing a public forum prior to culling and that just because people have an issue with deer, that does not mean culling is the answer. Some members expressed concern about the overpopulation of deer and how to come to a solution for residents.

Chairperson Cargie clarified that a Forest Preserves "survey" is not a headcount of deer but a documentation on the IDNR permit of the condition of the habitat.

There was more discussion about educational options as interim steps prior to culling, including a possible matching garden program, addressing traffic issues, and suggesting another survey next year. Ms. Gillard and Ms. Christmas volunteered to research and prepare educational materials. There was also discussion that the other option the Committee has is

to make a recommendation to address the deer population by entering into a culling program.

Chairperson Cargie clarified that the language in the contract is for up to 50 tags and the opportunity to reassess after a year.

The Committee continued to discuss alternative solutions and whether to make a recommendation to cull.

In response to a question about the safety of culling in a residential area, Chairperson Cargie noted there is an indemnification clause outlined within the contract and the language was approved by the Village's attorney.

6. NEW BUSINESS

a. Discussion of Final Committee Report and Next Steps

After more discussion about the Committee's next steps, Chairperson Cargie stated Ms. Phyfer would put together a draft report for the Committee's review. He stated he anticipated two more meetings, with the final meeting being the recommendation on culling and finalizing the report.

b. Discussion of Deer Management Information for Village Website

The Committee did not discuss this item.

7. NEXT MEETING

The Committee members came to a consensus to hold the next meeting on January 19, 2021 at 7:30p.m.

Mr. Lueking volunteered to invite a representative from the Forest Preserves and Chairperson Cargie stated he would reach out to Mr. Preuss.

8. ADJOURNMENT

Mr. Lemar made a motion, seconded by Ms. Hughes, to adjourn the Deer Management Ad Hoc Committee meeting at 9:28p.m.

Roll call:

Ayes: Chairperson Tom Cargie, Laurie Gillard, John Roeger, Joel Lueking, Dawn Mizgala, Marta Kozbur, Ingrid Liu, Katharine Christmas, Dan Hollenbach, Cathleen Hughes, Ron Lemar

Absent: Julie Armstrong, Annette Madden, John Flynn

Nays: None

Motion Passes.

Sara Phyfer, Secretary

DRAFT



Village of River Forest
Village Administrator's Office

400 Park Avenue
River Forest, IL 60305
Tel: 708-366-8500

MEMORANDUM

Date: January 14, 2021

To: Chairperson Cargie
Deer Management Committee Members

From: Sara Phyfer, Management Analyst/Deputy Clerk

Subj: Note on Documents Included in the Packet

The following materials were created or obtained by Committee members and have been included in the packet for discussion by request.

- Recommendations for a Community-Based Deer Management Plan
- Illinois Department of Natural Resources Deer Population Control Permits

Recommendations for a Community-Based Deer Management (CBDM) Plan

Village of River Forest, IL

January 2021

PLAN SUMMARY AND BACKGROUND

- *Provide a brief summary of the content of the Village deer management plan, e.g., actions selected and a general timeline for implementation.*
 - *Recommend a permanent CBDM Committee to the RF Village Trustees*
 - *Within the permanent committee, include a third party wildlife biologist (UIUC?) authority without bias or potential conflict of interest*
 - *Request Village to provide for the CBDM Committee to have a line item within the Village budget (so the CBDM program will continue even if administration within the Village changes)*
 - *Include a extended timeline of 5 to 10 years*
- *Provide a description of the area targeted for management, e.g., location, size*
- *If a deer committee was convened to help create the deer management plan, include some information about*
 - *How committee were selected (process, by whom, criteria for selection, etc.)*
 - *Committee members names and affiliations*
 - *Important dates or milestones*
 - *Decision-making process used to create the deer management plan.*
 - *include a purpose: what is your community's overall purpose in creating this deer management plan*

PROBLEM DEFINITION

- *Describe the deer management problem that the Village is facing*
 - *Include a discussion of the primary impacts of the deer problem*
 - *impacts to habitat*
 - *impacts to ornamental plantings around residences*
 - *public health*
 - *safety impacts such as deer-vehicle collisions or increased Lyme disease cases (provide numbers here)*
- *Describe the impacts that are driving the problem in RF – demonstrate the links between the management actions selected and the objectives these actions will help meet, and the impacts the objectives help address.*
 - *Organize the impacts by type, e.g., human health impacts, ecological impacts, etc.*
 - *Identify where or to whom the impacts are occurring, how severe they are, and if they have changed over time (we need data here)*
 - *Include the sources you relied upon to identify the impacts, (we need data here, we can also use the survey results)*

GOALS

- Include goals the deer management program hopes to achieve.
- Example goals might be:
 - Maintaining a socially acceptable level for the deer population (**What is our ideal deer population? What is the current population?**)
 - preserving healthy, local forestland (**this needs evaluation in order to measure improvement**)
 - supporting a community that is well-educated on how to live with deer while reducing human-deer conflicts, etc. (this is something we can start doing now)
- These goals must be realistic and achievable. Are there any statewide goals for deer management, does IL or Cook County's wildlife agency have a deer management plan we can review to help refine the RF community's goals?)

MEASUREABLE OBJECTIVES

- Include measurable objectives (**with target dates to track progress**), the achievement of which demonstrate accomplishment of the goals for RF deer management
 - Objectives directed towards the number/behavior of deer (**need data to support this**)
 - Objectives directed towards increasing community knowledge about deer/deer management (e.g., driving behavior, deer-resistant plantings, etc.). (**Something we can do now or in the near future**)
 - Reduce the number of deer-vehicle collisions to a certain amount per year (**provide annual data for collisions within the community**)
 - Eliminate deer damage to ornamental plantings around homes (**measure this through resident complaints to the Village – are they being measure or maybe set up a simple way for residents to report**),
 - Increase or maintain stems of certain forest plant species to some density, etc. (**Forest Preserve needs to be involved here, maybe involve the local high schools/community college as an ecology project**)
- Include measurable objectives that are tied to indicators and actions is arguable the most important component of the plan.
- It is critical to know what progress is being made towards the goal in order to have some way to judge success the program.
- It is also important to start with identifying objectives, not with actions.

MANAGEMENT ACTIONS RECOMMENDED

- Whatever actions are recommended by this committee, we must explain how these actions will contribute to meeting the objectives, and we must identify why particular actions were recommended.
- This is important - in the community survey, many residents had recommendations such as:
 - using contraceptive methods (many people asked about this)

- *putting up fencing along Thatcher near Dominican where there are often deer crossing (several people mentioned this and someone cited CO using fencing along the highways to prevent deer – auto collisions)*
- *additional signage (multiple suggestions)*
- *additional lights (multiple suggestions)*
- *stop signs to slow traffic (the speed limit is 25 mph) or speed bumps to slow cars down (multiple people suggested this)*
- ***These all need to be discussed for feasibility***

MANAGEMENT ACTIONS CONSIDERED

- *Has the Village ever considered deer management actions before establishing this ad hoc committee?*
 - *If so, what was considered in the past?*
- *Presenting a clear rationale as to why particular actions were not suitable (see the recommendations from the community survey) for the Village is an important part of developing a sound, acceptable deer plan and to ensure getting community buy in.*

PLAN FOR MONITORING

- *Include a list of the indicators to be monitoring to assess progress towards achieving your objectives.*
- *It is important to identify for each indicator what specific data you are going to collect, who is going to collect those data, and how they will do so.*
- *Will conducting aerial counts of deer each year to monitor changes in population be conducted? (The Forest Preserve has done this for other areas within Cook County, why not Thatcher Woods?)*
- *Will monitoring regeneration of certain forest plants be conducted? (This is something the Forest Preserve does. Why not get the community involved? Use this monitor to engage the community and as an opportunity to educate the students (middle, high school, community college)?*
- *Will the Village be tracking deer-vehicle collisions?*
- ***These monitors must be tied to measureable objectives.***

PLAN FOR PUBLIC ENGAGEMENT

- ***Make the community survey responses publically available on the RF Village website (this was mentioned in the survey)***
- *Include outreach strategies as part of the selected management actions to meet education-related objectives (e.g., holding neighborhood workshops on landscaping with deer-resistant plantings)*
- *Plan annual or semi-annual public meetings to update the community on progress towards the CBDM plan*
- *Maintain a page regarding the deer management program on the RF Village website*
- *Keeping the public apprised of changes to the deer management program is an important aspect of an effective CBDM program, it's important to identify how this will done in order to stay accountable.*

BUDGET

- *The estimated costs of each element of the plan for each year that the effort is funded.*
- *Identify both one-time costs as well as ongoing costs.*
- *Be sure to be as comprehensive as possible*
- *Plan for a 5 to 10 year horizon.*

TIMETABLE

- *Create an anticipated timetable for the various components of the deer management plan.*
- *When are different management actions scheduled to be completed?*
- *When will the data for monitoring and evaluation be collected, and over what time frame?*
- *Annual public meetings scheduled where progress on the deer management program is shared with the Village*

RESPONSIBILITIES

- *List responsibilities as part of a timeline.*
- *Include the affiliations of the responsible party. This particular action may be the responsibility of the deer committee, the Village President, a "Friends of the Deer" group, etc.*

ADDITIONAL SUPPORTING DOCUMENTS

Attach collected data (e.g., aerial deer population counts, a survey of community member attitudes, analysis of the forest plants, etc.)

REFERENCES

List referenced documents here for the recommendation or development of the plan.

*The template for this deer management plan can be found at
https://deeradvisor.dnr.cornell.edu/resource-library/resources?field_resource_type_term_tid=126*

From: [REDACTED]
To: [Sara Phyfer](#)
Subject: For next weeks meeting: CCFPD Deer Removal Permit applications
Date: Wednesday, January 13, 2021 3:18:10 PM
Attachments: [Redacted Responsive Documents.zip](#)
[1b FPDCC DPCP application Ned Brown-Busse 2019-2020.pdf](#)

Hi Sara,

I hope you're well. I'd like to include this zip attachment in next weeks meeting. These are the approved deer management applications for 2019/2020 for the 7 properties that CCFPD requested permits for in 2019/2020 season. I thought we should review them as they represent a standard for CCFPD involvement in this process in the preserves where it is actually invested in deer management. For the majority of these Forest Preserve properties there is no financial or other involvement by the surrounding communities. Each application is somewhat unique but I attached one as an independent document for those who don't want to deal with a zip file.

These applications include **a lot** of detail and CCFPD investment that is entirely lacking for Thatcher Woods:

- 10+ years worth of annual data collected by the CCFPD on individual stem counts of native plants and # of plant buds that were browsed
- Current and continued investment in the Forest Preserves in the form of controlled burns to encourage the growth of native plants in the individual Forest Preserves.
- Some of the permit applications even include annual deer population counts via aerial census in the individual Forest Preserves.
- They all include on-going measurable objectives for the cull that require annual, detailed monitoring of individual plant and stem browsing in the preserves as well as fencing of areas to compare areas accessible to deer to areas that aren't accessible to deer.

These examples of approved deer management applications suggests RF would need similarly detailed information on Thatcher Woods to justify a culling. It doesn't appear such data exists for even one year, much less a decade, or it would've likely been presented by now. Also, if deer population and Forest Preserve plant health are to be used as a justification for the cull, detailed plant surveys would also need to be done annually *after* a cull to gauge its effectiveness. We haven't addressed this additional cost and if it would be paid for by the CCFPD or by the Village.

Thanks in advance for distributing.
Katharine

Illinois Department of Natural Resources
Deer Population Control Permit

Permit #: **TSP032-19** Tag #: **ILLINOIS DNR A 077501-077550 (orange plastic tags)**

Property Owner/Manager/
Agency/Organization name: **Forest Preserve District of Cook County (FPDCC)**

Address: **536 North Harlem Avenue** City: **River Forest, IL** Zip Code: **60305**

Agency/Organization contact person(s):

Name: **Mr. Chris Anchor, Senior Wildlife Biologist** Phone #: **(847) 798-0354**

Name: **Mr. John McCabe, Director of Resource Management** Phone #: **(708) 771-1180**

AREA DESCRIPTION

Legal description of property: **Glenwood-Zander Complex: FPDCC properties in sections 1-4, 9-10, & 16 in T35N, R14E, section 6 in T35N, R15E, and sections 25-27 & 34-35 in T36N, R14E** Acreage: **4,248 acres**

County: **Cook** Type and extent of damage: **Continued browsing pressure upon native indicator plants (C. tuberosus / H. ciliaris / B. leucantha): browse rates exceed threshold level of $\leq 25\%$.**

REMOVAL AND CARCASS DISPOSITION SPECIFICATIONS:

Permit is valid 24 hours/day; spotlighting and baiting are allowed; authorized removal methods are via IDNR-tested and approved sharpshooters at IDNR-approved sites and non-chemical live-capture followed by mechanical (non-chemical) euthanization; usable deer carcasses must be tagged, promptly field-dressed and cooled, processed individually in an IDNR-approved meat processing facility, and donated to charity; antlers from male deer must be removed individually, securely attached together, labeled with the carcass tag number, and retained for IDNR; IDNR requests that CWD samples be collected from ALL yearling and older deer; additional specifications detailed in the permit cover letter apply to this permit.

THE ABOVE AGENCY/ORGANIZATION IS HEREBY GRANTED A 90 -DAY PERMIT UNDER SECTION 5/2.37 OF THE ILLINOIS WILDLIFE CODE TO REMOVE 50 WHITE-TAILED DEER CAUSING DAMAGE (DESCRIBED ABOVE). THIS PERMIT IS VALID FROM 12/02/2019 TO 02/29/2020 (DATES INCLUSIVE) AND ONLY ON THE LANDS OWNED/MANAGED BY THE PERMITTEE AND DESCRIBED ABOVE. UNLESS OTHERWISE SPECIFIED ON THIS PERMIT, OR ASSOCIATED COVER LETTER AND/OR DOCUMENT(S), THE PERMITTEE AND APPROVED SHARPSHOOTERS SHALL ADHERE TO THE PROVISIONS OF CHAPTERS 520 AND 720 OF THE ILLINOIS COMPILED STATUTES AND TITLE 17 OF THE ILLINOIS ADMINISTRATIVE CODE.

PERMIT PROVISIONS

- Proposed sharpshooters must be tested and approved by Department of Natural Resources – Division of Wildlife Resources personnel. Names, addresses, phone numbers, and other pertinent information, of the approved sharpshooters will be maintained on file by the Authorizing Biologist. Sharpshooters must carry a copy of this permit on their person at all times when collecting, transporting, and/or handling deer.
- Removal and disposition shall only be by the method(s) stated on this permit.
- No parts or pelts of deer collected under authority of this permit may be sold, mounted, tanned, bartered, nor traded in any manner.
- All deer must be tagged (through a rear leg) immediately after kill and before transporting. Tags must be retained with the carcass until it is disposed of or prepared for consumption.
- PERMITTEE MUST RETURN ANY UNUSED TAGS ALONG WITH THIS PERMIT AND A COMPLETE REMOVAL RECORD AND CARCASS DISPOSITION REPORT TO THE AUTHORIZING BIOLOGIST WITHIN 30 DAYS OF THE EXPIRATION OF THIS PERMIT. A complete evaluation of the effectiveness of the removals, authorized herein, in reducing/eliminating the aforementioned, deer-related damage must be submitted within 1 year of the expiration or with any subsequent permit request/management proposals; this does not apply to a permit extension during the current removal program.
- The Department of Natural Resources reserves the right to refuse to issue additional permits to permittees who fail to implement management recommendations (as provided by DNR) or who do not provide the required summaries.

MANAGEMENT PROVISIONS

Continue to monitor and quantify deer browse rates upon native indicator plants and plant communities; evaluate threshold levels of acceptable deer browsing upon indicator plant species; focus efforts on the removal of antlerless deer.

I fully understand the permit provisions, specified methods of removal and carcass

disposed herein, and agree to abide by them.

PERMITEE/REPRESENTATIVE SIGNATURE:

DATE: **11/20/19**

FOREST WILDLIFE PROGRAM AUTHORIZING AGENT:

Name: **Tim Preuss, IDNR Urban Deer Project**

Signature: **[Signature]**

11/18/2019

Address: **28W040 State Route 58, Elgin, IL 60120**

Phone #: **(847) 798-7620**

Illinois Department of Natural Resources
Deer Population Control Permit

Permit #: **TSP033-19** Tag #s: **ILLINOIS DNR B 115251-115300 (orange plastic tags)**

Property Owner/Manager/
Agency/Organization name: **Forest Preserve District of Cook County (FPDCC)**

Address: **536 North Harlem Avenue** City: **River Forest, IL** Zip Code: **60305**

Agency/Organization contact person(s):

Name: **Mr. Chris Anchor, Senior Wildlife Biologist**

Phone #: **(847) 798-0354**

Name: **Mr. John McCabe, Director of Resource Management**

Phone #: **(708) 771-1180**

AREA DESCRIPTION

Legal description of property: **Tinley Creek Complex: FPDCC properties in sections 1 & 12 in T36N, R12E, sections 5-8, 15, & 18-23 in T36N, R13E, section 36 in T37N, R12E, and sections 31-32 in T37N, R13E** Acreage: **4,248 acres**

County: **Cook** Type and extent of damage: **Continued browsing pressure upon native indicator plants (e.g. L. spicata): browse rates exceed threshold level of $\leq 25\%$.**

REMOVAL AND CARCASS DISPOSITION SPECIFICATIONS:

Permit is valid 24 hours/day; spotlighting and baiting are allowed; authorized removal methods are via IDNR-tested and approved sharpshooters at IDNR-approved sites and non-chemical live-capture followed by mechanical (non-chemical) euthanization; usable deer carcasses must be tagged, promptly field-dressed and cooled, processed individually in an IDNR-approved meat processing facility, and donated to charity; antlers from male deer must be removed individually, securely attached together, labeled with the carcass tag number, and retained for IDNR; IDNR requests that CWD samples be collected from ALL yearling and older deer; additional specifications detailed in the permit cover letter apply to this permit.

THE ABOVE AGENCY/ORGANIZATION IS HEREBY GRANTED A 90 DAY PERMIT UNDER SECTION 5/2.37 OF THE ILLINOIS WILDLIFE CODE TO REMOVE 50 WHITE-TAILED DEER CAUSING DAMAGE (DESCRIBED ABOVE). THIS PERMIT IS VALID FROM 12/02/2019 TO 02/29/2020 (DATES INCLUSIVE) AND ONLY ON THE LANDS OWNED/MANAGED BY THE PERMITEE AND DESCRIBED ABOVE. UNLESS OTHERWISE SPECIFIED ON THIS PERMIT, OR ASSOCIATED COVER LETTER AND/OR DOCUMENT(S), THE PERMITEE AND APPROVED SHARPSHOOTERS SHALL ADHERE TO THE PROVISIONS OF CHAPTERS 520 AND 720 OF THE ILLINOIS COMPILED STATUTES AND TITLE 17 OF THE ILLINOIS ADMINISTRATIVE CODE.

PERMIT PROVISIONS

1. Proposed sharpshooters must be tested and approved by Department of Natural Resources - Division of Wildlife Resources personnel. Names, addresses, phone numbers, and other pertinent information, of the approved sharpshooters will be maintained on file by the Authorizing Biologist. Sharpshooters must carry a copy of this permit on their person at all times when collecting, transporting, and/or handling deer.
2. Removal and disposition shall only be by the method(s) stated on this permit.
3. No parts or pelts of deer collected under authority of this permit may be sold, mounted, tanned, bartered, nor traded in any manner.
4. All deer must be tagged (through a rear leg) immediately after kill and before transporting. Tags must be retained with the carcass until it is disposed of or prepared for consumption.

5. PERMITEE MUST RETURN ANY UNUSED TAGS ALONG WITH THIS PERMIT AND A COMPLETE REMOVAL RECORD AND CARCASS DISPOSITION REPORT TO THE AUTHORIZING BIOLOGIST WITHIN 30 DAYS OF THE EXPIRATION OF THIS PERMIT. A complete evaluation of the effectiveness of the removals, authorized herein, in reducing/eliminating the aforementioned, deer-related damage must be submitted within 1 year of the expiration or with any subsequent permit request/management proposals; this does not apply to a permit extension during the current removal program.
6. The Department of Natural Resources reserves the right to refuse to issue additional permits to permittees who fail to implement management recommendations (as provided by DNR) or who do not provide the required summaries.

MANAGEMENT PROVISIONS

Continue to monitor and quantify deer browse rates upon native indicator plants and plant communities; evaluate threshold levels of acceptable deer browsing upon indicator plant species; focus efforts on the removal of antlerless deer.

I fully understand the permit provisions, specified methods of removal and car

ndations, listed herein, and agree to abide by them.

PERMITEE/REPRESENTATIVE SIGNATURE:

DATE:

FOREST WILDLIFE PROGRAM AUTHORIZING AGENT

Name: **Tim Preuss, IDNR Urban Deer Project**

Signature:

Address: **28W040 State Route 58, Elgin, IL 60120**

Phone #:

(847) 798-7620

Illinois Department of Natural Resources
Deer Population Control Permit

Permit #: **TSP035-19** Tag #s: **ILLINOIS DNR B 112001-112100 (orange plastic tags)**

Property Owner/Manager/
Agency/Organization name: **Forest Preserve District of Cook County (FPDCC)**

Address: **536 North Harlem Avenue** City: **River Forest, IL** Zip Code: **60305**

Agency/Organization contact person(s):

Name: **Mr. Chris Anchor, Senior Wildlife Biologist**

Phone #: **(847) 798-0354**

Name: **Mr. John McCabe, Director of Resource Management**

Phone #: **(708) 771-1180**

AREA DESCRIPTION

Legal description of property: **Palos-Sag Valley Complex: FPDCC properties in sections 4-6 in T36N, R12E, and sections 12-14, 19-20, 24-25, & 36 in**

T37N, R11E, and sections 3-10, 15-23, and 27-34 in T37N, R12E, and sections 20-21, 28-29, & 34 in T38N, R12E. Acreage: **~14,000 acres**

County: **Cook** Type and extent of damage: **Continued browsing pressure upon native indicator plants (B. leucantha): browse rates exceed threshold level of $\leq 10\%$.**

REMOVAL AND CARCASS DISPOSITION SPECIFICATIONS:

Permit is valid 24 hours/day; spotlighting and baiting are allowed; authorized removal method is via IDNR-tested and approved sharpshooters at IDNR-approved sites; usable deer carcasses must be tagged, promptly field-dressed and cooled, processed individually in an IDNR-approved meat processing facility, and donated to charity; antlers from male deer must be removed individually, securely attached together, labeled with the carcass tag number, and retained for IDNR; CWD samples must be collected from 30 yearling and older deer; additional specifications detailed in the permit cover letter apply to this permit.

THE ABOVE AGENCY/ORGANIZATION IS HEREBY GRANTED A **90** -DAY PERMIT UNDER SECTION 5/2.37 OF THE ILLINOIS WILDLIFE CODE TO REMOVE **100** WHITE-TAILED DEER CAUSING DAMAGE (DESCRIBED ABOVE). THIS PERMIT IS VALID FROM **01/02/2020** TO **03/31/2020** (DATES INCLUSIVE) AND ONLY ON THE LANDS OWNED/MANAGED BY THE PERMITEE AND DESCRIBED ABOVE. UNLESS OTHERWISE SPECIFIED ON THIS PERMIT, OR ASSOCIATED COVER LETTER AND/OR DOCUMENT(S), THE PERMITEE AND APPROVED SHARPSHOOTERS SHALL ADHERE TO THE PROVISIONS OF CHAPTERS 520 AND 720 OF THE ILLINOIS COMPILED STATUTES AND TITLE 17 OF THE ILLINOIS ADMINISTRATIVE CODE.

PERMIT PROVISIONS

1. Proposed sharpshooters must be tested and approved by Department of Natural Resources – Division of Wildlife Resources personnel. Names, addresses, phone numbers, and other pertinent information, of the approved sharpshooters will be maintained on file by the Authorizing Biologist. Sharpshooters must carry a copy of this permit on their person at all times when collecting, transporting, and/or handling deer.
2. Removal and disposition shall only be by the method(s) stated on this permit.
3. No parts or pelts of deer collected under authority of this permit may be sold, mounted, tanned, bartered, nor traded in any manner.
4. All deer must be tagged (through a rear leg) immediately after kill and before transporting. Tags must be retained with the carcass until it is disposed of or prepared for consumption.

5. PERMITEE MUST RETURN ANY UNUSED TAGS ALONG WITH THIS PERMIT AND A COMPLETE REMOVAL RECORD AND CARCASS DISPOSITION REPORT TO THE AUTHORIZING BIOLOGIST WITHIN 30 DAYS OF THE EXPIRATION OF THIS PERMIT. A complete evaluation of the effectiveness of the removals, authorized herein, in reducing/eliminating the aforementioned, deer-related damage must be submitted within 1 year of the expiration or with any subsequent permit request/management proposals; this does not apply to a permit extension during the current removal program.
6. The Department of Natural Resources reserves the right to refuse to issue additional permits to permittees who fail to implement management recommendations (as provided by DNR) or who do not provide the required summaries.

MANAGEMENT PROVISIONS

Continue to monitor and quantify deer browse rates upon native indicator plants and plant communities; evaluate threshold levels of acceptable deer browsing upon indicator plant species; focus efforts on the removal of antlerless deer.

I fully understand the permit provisions, specified methods of removal and carcass disposition, and agree to abide by them.

PERMITEE/REPRESENTATIVE SIGNATURE:

DATE:

FOREST WILDLIFE PROGRAM AUTHORIZING AGENT

Name: **Tim Preuss, IDNR Urban Deer Project**

Signature:

Address: **28W040 State Route 58, Elgin, IL 60120**

Phone #:

(847) 798-7620

Illinois Department of Natural Resources
Deer Population Control Permit

Permit #: **TSP036-19** Tag #s: **ILLINOIS DNR A 590126-590150 (orange plastic tags)**

Property Owner/Manager/
Agency/Organization name: **Forest Preserve District of Cook County (FPDCC)**

Address: **536 North Harlem Avenue** City: **River Forest, IL** Zip Code: **60305**

Agency/Organization contact person(s):

Name: **Mr. Chris Anchor, Senior Wildlife Biologist** Phone #: **(847) 798-0354**

Name: **Mr. John McCabe, Director of Resource Management** Phone #: **(708) 771-1180**

AREA DESCRIPTION

Legal description of property: **Sauk Lake Forest Preserve: FPDCC property in section 36 in T35N, R13E and sections 20 & 29-32 in T35N, R14E.** Acreage: **1,306 acres**

County: **Cook** Type and extent of damage: **Continued browsing pressure upon native indicator plants (K. biflora / T. recurvatum / Erythronium sp.): browse rates exceed threshold level of $\leq 25\%$.**

REMOVAL AND CARCASS DISPOSITION SPECIFICATIONS:

Permit is valid 24 hours/day; spotlighting and baiting are allowed; authorized removal method is via IDNR-tested and approved sharpshooters at IDNR-approved sites; usable deer carcasses must be tagged, promptly field-dressed and cooled, processed individually in an IDNR-approved meat processing facility, and donated to charity; antlers from male deer must be removed individually, securely attached together, labeled with the carcass tag number, and retained for IDNR; CWD samples must be collected from all yearling and older deer; additional specifications detailed in the permit cover letter apply to this permit.

THE ABOVE AGENCY/ORGANIZATION IS HEREBY GRANTED A **90** -DAY PERMIT UNDER SECTION 5/2.37 OF THE ILLINOIS WILDLIFE CODE TO REMOVE **25** WHITE-TAILED DEER CAUSING DAMAGE (DESCRIBED ABOVE). THIS PERMIT IS VALID FROM **01/02/2020** TO **03/31/2020** (DATES INCLUSIVE) AND ONLY ON THE LANDS OWNED/MANAGED BY THE PERMITEE AND DESCRIBED ABOVE. UNLESS OTHERWISE SPECIFIED ON THIS PERMIT, OR ASSOCIATED COVER LETTER AND/OR DOCUMENT(S), THE PERMITEE AND APPROVED SHARPSHOOTERS SHALL ADHERE TO THE PROVISIONS OF CHAPTERS 520 AND 720 OF THE ILLINOIS COMPILED STATUTES AND TITLE 17 OF THE ILLINOIS ADMINISTRATIVE CODE.

PERMIT PROVISIONS

1. Proposed sharpshooters must be tested and approved by Department of Natural Resources - Division of Wildlife Resources personnel. Names, addresses, phone numbers, and other pertinent information, of the approved sharpshooters will be maintained on file by the Authorizing Biologist. Sharpshooters must carry a copy of this permit on their person at all times when collecting, transporting, and/or handling deer.
2. Removal and disposition shall only be by the method(s) stated on this permit.
3. No parts or pelts of deer collected under authority of this permit may be sold, mounted, tanned, bartered, nor traded in any manner.
4. All deer must be tagged (through a rear leg) immediately after kill and before transporting. Tags must be retained with the carcass until it is disposed of or prepared for consumption.
5. PERMITEE MUST RETURN ANY UNUSED TAGS ALONG WITH THIS PERMIT AND A COMPLETE REMOVAL RECORD AND CARCASS DISPOSITION REPORT TO THE AUTHORIZING BIOLOGIST WITHIN 30 DAYS OF THE EXPIRATION OF THIS PERMIT. A complete evaluation of the effectiveness of the removals, authorized herein, in reducing/eliminating the aforementioned, deer-related damage must be submitted within 1 year of the expiration or with any subsequent permit request/management proposals; this does not apply to a permit extension during the current removal program.
6. The Department of Natural Resources reserves the right to refuse to issue additional permits to permittees who fail to implement management recommendations (as provided by DNR) or who do not provide the required summaries.

MANAGEMENT PROVISIONS

Continue to monitor and quantify deer browse rates upon native indicator plants and plant communities; evaluate threshold levels of acceptable deer browsing upon indicator plant species; focus efforts on the removal of antlerless deer.

I fully understand the permit provisions, specified methods of removal and carcass disposition, listed herein, and agree to abide by them.

PERMITEE/REPRESENTATIVE SIGNATURE: 

DATE: **12/19/19**

FOREST WILDLIFE PROGRAM AUTHORIZING AGENT:

Name: **Tim Preuss, IDNR Urban Deer Project**

Signature: 

12/18/2019

Address: **28W040 State Route 58, Elgin, IL 60120**

Phone #: **(847) 798-7620**

Illinois Department of Natural Resources
Deer Population Control Permit

Permit #: **TSP037-19**

Tag #: **ILLINOIS DNR A 089351-089375 (orange plastic tags)**

Property Owner/Manager/
Agency/Organization name: **Forest Preserve District of Cook County (FPDCC)**

Address: **536 North Harlem Avenue** City: **River Forest, IL** Zip Code: **60305**

Agency/Organization contact person(s):

Name: **Mr. Chris Anchor, Senior Wildlife Biologist**

Phone #: **(847) 798-0354**

Name: **Mr. John McCabe, Director of Resource Management**

Phone #: **(708) 771-1180**

AREA DESCRIPTION

Legal description of property: **Bemis Woods Complex (Bemis Woods, Salt Creek Woods, Wolf Road Prairie, and Possum Hollow Woods): FPDCC properties in sections 26-35 in T39N, R12E.** Acreage: **1,270 acres**

County: **Cook** Type and extent of damage: **Continued browsing pressure upon native indicator plants (L. michiganense / Baptisia sp.): browse rates exceed threshold level of $\leq 25\%$.**

REMOVAL AND CARCASS DISPOSITION SPECIFICATIONS:

Permit is valid 24 hours/day; spotlighting and baiting are allowed; authorized removal method is via IDNR-tested and approved sharpshooters at IDNR-approved sites; usable deer carcasses must be tagged, promptly field-dressed and cooled, processed individually in an IDNR-approved meat processing facility, and donated to charity; antlers from male deer must be removed individually, securely attached together, labeled with the carcass tag number, and retained for IDNR; CWD samples must be collected from all yearling and older deer; additional specifications detailed in the permit cover letter apply to this permit.

THE ABOVE AGENCY/ORGANIZATION IS HEREBY GRANTED A **90** -DAY PERMIT UNDER SECTION 5/2.37 OF THE ILLINOIS WILDLIFE CODE TO REMOVE **25** WHITE-TAILED DEER CAUSING DAMAGE (DESCRIBED ABOVE). THIS PERMIT IS VALID FROM **01/02/2020** TO **03/31/2020** (DATES INCLUSIVE) AND ONLY ON THE LANDS OWNED/MANAGED BY THE PERMITEE AND DESCRIBED ABOVE. UNLESS OTHERWISE SPECIFIED ON THIS PERMIT, OR ASSOCIATED COVER LETTER AND/OR DOCUMENT(S), THE PERMITEE AND APPROVED SHARPSHOOTERS SHALL ADHERE TO THE PROVISIONS OF CHAPTERS 520 AND 720 OF THE ILLINOIS COMPILED STATUTES AND TITLE 17 OF THE ILLINOIS ADMINISTRATIVE CODE.

PERMIT PROVISIONS

1. Proposed sharpshooters must be tested and approved by Department of Natural Resources – Division of Wildlife Resources personnel. Names, addresses, phone numbers, and other pertinent information, of the approved sharpshooters will be maintained on file by the Authorizing Biologist. Sharpshooters must carry a copy of this permit on their person at all times when collecting, transporting, and/or handling deer.
2. Removal and disposition shall only be by the method(s) stated on this permit.
3. No parts or pelts of deer collected under authority of this permit may be sold, mounted, tanned, bartered, nor traded in any manner.
4. All deer must be tagged (through a rear leg) immediately after kill and before transporting. Tags must be retained with the carcass until it is disposed of or prepared for consumption.

5. PERMITEE MUST RETURN ANY UNUSED TAGS ALONG WITH THIS PERMIT AND A COMPLETE REMOVAL RECORD AND CARCASS DISPOSITION REPORT TO THE AUTHORIZING BIOLOGIST WITHIN 30 DAYS OF THE EXPIRATION OF THIS PERMIT. A complete evaluation of the effectiveness of the removals, authorized herein, in reducing/eliminating the aforementioned, deer-related damage must be submitted within 1 year of the expiration or with any subsequent permit request/management proposals; this does not apply to a permit extension during the current removal program.
6. The Department of Natural Resources reserves the right to refuse to issue additional permits to permittees who fail to implement management recommendations (as provided by DNR) or who do not provide the required summaries.

MANAGEMENT PROVISIONS

Continue to monitor and quantify deer browse rates upon native indicator plants and plant communities; evaluate threshold levels of acceptable deer browsing upon indicator plant species; focus efforts on the removal of antlerless deer.

I fully understand the permit provisions, specified methods of removal and carcass disposition, listed herein, and agree to abide by them.

PERMITEE/REPRESENTATIVE SIGNATURE:

DATE: **12/18/19**

FOREST WILDLIFE PROGRAM AUTHORIZING AGENT:

Name: **Tim Preuss, IDNR Urban Deer Project**

Signature:

Address: **28W040 State Route 58, Elgin, IL 60120**

Phone #:

(847) 798-7620

Illinois Department of Natural Resources
Deer Population Control Permit

Permit #: **TSP038-19** Tag #: **ILLINOIS DNR A 151851-151900 (orange plastic tags)**

Property Owner/Manager/
Agency/Organization name: **Forest Preserve District of Cook County (FPDCC)**

Address: **536 North Harlem Avenue** City: **River Forest, IL** Zip Code: **60305**

Agency/Organization contact person(s):

Name: **Mr. Chris Anchor, Senior Wildlife Biologist** Phone #: **(847) 798-0354**

Name: **Mr. John McCabe, Director of Resource Management** Phone #: **(708) 771-1180**

AREA DESCRIPTION

Legal description of property: **Ned Brown Forest Preserve/Busse Woods: FPDCC properties in sections 16-21 & 28-31 in**

T41N, R11E. Acreage: **3,725 acres**

County: **Cook** Type and extent of damage: **Continued browsing pressure upon native indicator plants (A. dracontium, E. albidum, G. maculatum, L. michiganense, M. diphylla, T. recurvatum): browse rates exceed threshold level of $\leq 25\%$.**

REMOVAL AND CARCASS DISPOSITION SPECIFICATIONS:

Permit is valid 24 hours/day; spotlighting and baiting are allowed; authorized removal method is via IDNR-tested and approved sharpshooters at IDNR-approved sites; usable deer carcasses must be tagged, promptly field-dressed and cooled, processed individually in an IDNR-approved meat processing facility, and donated to charity; antlers from male deer must be removed individually, securely attached together, labeled with the carcass tag number, and retained for IDNR; CWD samples must be collected from ALL deer regardless of age; additional specifications detailed in the permit cover letter apply to this permit.

THE ABOVE AGENCY/ORGANIZATION IS HEREBY GRANTED A **90** DAY PERMIT UNDER SECTION 5/2.37 OF THE ILLINOIS WILDLIFE CODE TO REMOVE **50** WHITE-TAILED DEER CAUSING DAMAGE (DESCRIBED ABOVE). THIS PERMIT IS VALID FROM **01/02/2020** TO **03/31/2020** (DATES INCLUSIVE) AND ONLY ON THE LANDS OWNED/MANAGED BY THE PERMITEE AND DESCRIBED ABOVE. UNLESS OTHERWISE SPECIFIED ON THIS PERMIT, OR ASSOCIATED COVER LETTER AND/OR DOCUMENT(S), THE PERMITTEE AND APPROVED SHARPSHOOTERS SHALL ADHERE TO THE PROVISIONS OF CHAPTERS 520 AND 720 OF THE ILLINOIS COMPILED STATUTES AND TITLE 17 OF THE ILLINOIS ADMINISTRATIVE CODE.


PERMIT PROVISIONS

1. Proposed sharpshooters must be tested and approved by Department of Natural Resources – Division of Wildlife Resources personnel. Names, addresses, phone numbers, and other pertinent information, of the approved sharpshooters will be maintained on file by the Authorizing Biologist. Sharpshooters must carry a copy of this permit on their person at all times when collecting, transporting, and/or handling deer.
2. Removal and disposition shall only be by the method(s) stated on this permit.
3. No parts or pelts of deer collected under authority of this permit may be sold, mounted, tanned, bartered, nor traded in any manner.
4. All deer must be tagged (through a rear leg) immediately after kill and before transporting. Tags must be retained with the carcass until it is disposed of or prepared for consumption.
5. PERMITEE MUST RETURN ANY UNUSED TAGS ALONG WITH THIS PERMIT AND A COMPLETE REMOVAL RECORD AND CARCASS DISPOSITION REPORT TO THE AUTHORIZING BIOLOGIST WITHIN 30 DAYS OF THE EXPIRATION OF THIS PERMIT. A complete evaluation of the effectiveness of the removals, authorized herein, in reducing/eliminating the aforementioned, deer-related damage must be submitted within 1 year of the expiration or with any subsequent permit request/management proposals; this does not apply to a permit extension during the current removal program.
6. The Department of Natural Resources reserves the right to refuse to issue additional permits to permittees who fail to implement management recommendations (as provided by DNR) or who do not provide the required summaries.

MANAGEMENT PROVISIONS

Continue to monitor and quantify deer browse rates upon native indicator plants and plant communities; evaluate threshold levels of acceptable deer browsing upon indicator plant species.

I fully understand the permit provisions, specified methods of removal and carcass disposition, listed herein, and agree to abide by them.

PERMITEE/REPRESENTATIVE SIGNATURE: 

DATE: **12/17/19**

FOREST WILDLIFE PROGRAM AUTHORIZING AGENT:

Name: **Tim Preuss, IDNR Urban Deer Project**

Signature: 

12/18/2019

Address: **28W040 State Route 58, Elgin, IL 60120**

Phone #: **(847) 798-7620**

Illinois Department of Natural Resources
Deer Population Control Permit

Permit #: **TSP039-19** Tag #: **ILLINOIS DNR A 232351-232400 (orange plastic tags)**

Property Owner/Manager/
Agency/Organization name: **Forest Preserve District of Cook County (FPDCC)**

Address: **536 North Harlem Avenue** City: **River Forest, IL** Zip Code: **60305**

Agency/Organization contact person(s):

Name: **Mr. Chris Anchor, Senior Wildlife Biologist**

Phone #: **(847) 798-0354**

Name: **Mr. John McCabe, Director of Resource Management**

Phone #: **(708) 771-1180**

AREA DESCRIPTION

Legal description of property: **River Trail Nature Center: FPDCC properties in sections 1-2, 12-13, 24-25, & 36 in T42N, R11E and sections 6, 18-19, & 29-32 in T42N, R12E.**

Acreage: **2,887 acres**

County: **Cook** Type and extent of damage: **Continued excessive browsing pressure (> 40%) upon native indicator plants (i.e., *L. spicata*) and upon native plant communities as demonstrated by comparison of fenced deer enclosure and adjacent unfenced control plot.**

REMOVAL AND CARCASS DISPOSITION SPECIFICATIONS:

Permit is valid 24 hours/day; spotlighting and baiting are allowed; authorized removal method is via IDNR-tested and approved sharpshooters at IDNR-approved sites; usable deer carcasses must be tagged, promptly field-dressed and cooled, processed individually in an IDNR-approved meat processing facility, and donated to charity; antlers from male deer must be removed individually, securely attached together, labeled with the carcass tag number, and retained for IDNR; CWD samples must be collected from 20 yearling and older deer; additional specifications detailed in the permit cover letter apply to this permit.

THE ABOVE AGENCY/ORGANIZATION IS HEREBY GRANTED A **90** -DAY PERMIT UNDER SECTION 5/2.37 OF THE ILLINOIS WILDLIFE CODE TO REMOVE **50** WHITE-TAILED DEER CAUSING DAMAGE (DESCRIBED ABOVE). THIS PERMIT IS VALID FROM **01/02/2020** TO **03/31/2020** (DATES INCLUSIVE) AND ONLY ON THE LANDS OWNED/MANAGED BY THE PERMITEE AND DESCRIBED ABOVE. UNLESS OTHERWISE SPECIFIED ON THIS PERMIT, OR ASSOCIATED COVER LETTER AND/OR DOCUMENT(S), THE PERMITEE AND APPROVED SHARPSHOOTERS SHALL ADHERE TO THE PROVISIONS OF CHAPTERS 520 AND 720 OF THE ILLINOIS COMPILED STATUTES AND TITLE 17 OF THE ILLINOIS ADMINISTRATIVE CODE.

PERMIT PROVISIONS

1. Proposed sharpshooters must be tested and approved by Department of Natural Resources – Division of Wildlife Resources personnel. Names, addresses, phone numbers, and other pertinent information, of the approved sharpshooters will be maintained on file by the Authorizing Biologist. Sharpshooters must carry a copy of this permit on their person at all times when collecting, transporting, and/or handling deer.
2. Removal and disposition shall only be by the method(s) stated on this permit.
3. No parts or pelts of deer collected under authority of this permit may be sold, mounted, tanned, bartered, nor traded in any manner.
4. All deer must be tagged (through a rear leg) immediately after kill and before transporting. Tags must be retained with the carcass until it is disposed of or prepared for consumption.

5. PERMITEE MUST RETURN ANY UNUSED TAGS ALONG WITH THIS PERMIT AND A COMPLETE REMOVAL RECORD AND CARCASS DISPOSITION REPORT TO THE AUTHORIZING BIOLOGIST WITHIN 30 DAYS OF THE EXPIRATION OF THIS PERMIT. A complete evaluation of the effectiveness of the removals, authorized herein, in reducing/eliminating the aforementioned, deer-related damage must be submitted within 1 year of the expiration or with any subsequent permit request/management proposals; this does not apply to a permit extension during the current removal program.
6. The Department of Natural Resources reserves the right to refuse to issue additional permits to permittees who fail to implement management recommendations (as provided by DNR) or who do not provide the required summaries.

MANAGEMENT PROVISIONS

Continue to monitor and quantify deer browse rates upon native indicator plants and plant communities; evaluate threshold levels of acceptable deer browsing upon indicator plant species; focus efforts on the removal of antlerless deer.

I fully understand the permit provisions, specified methods of removal and carcass disposition, listed herein, and agree to abide by them.

PERMITEE/REPRESENTATIVE SIGNATURE:

DATE:

FOREST WILDLIFE PROGRAM AUTHORIZING AGENT

Name: **Tim Preuss, IDNR Urban Deer Project**

Signature:

Address: **28W040 State Route 58, Elgin, IL 60120**

Phone #:

(847) 798-7620

FOREST PRESERVE DISTRICT OF COOK COUNTY

BEMIS WOODS DEER REMOVAL REQUEST 2019/20

SITE DESCRIPTION

Bemis Woods is located within the Salt Creek Division of the FPDCC near the communities of Westchester, LaGrange, and Western Springs. For management purposes, the area encompasses Bemis Woods proper, Salt Creek Woods, Wolf Road Prairie, and Possum Hollow Woods and occupies an area of approximately 517 ha (1270 acres). Two areas, Salt Creek Woods (100 ha, 245 acres) and Wolf Road Prairie (32.5 ha, 80 acres) are dedicated Illinois Nature Preserves. Wolf Road Prairie is of exceptional value as it contains the largest example of mesic black soil prairie in the state of Illinois. It is of extremely high quality because it has never been subjected to grazing or tillage. The area is located along the Tinley Moraine and lies approximately 23 km (14.5 mi) southwest of downtown Chicago. The prairie contains soil that is mostly Elliott silt loam and in the more mesic sites are silty clay loams of the Ashkum and Peotone varieties. The wooded areas contain soils that are Beecher and Markham silt loams (White 1989).

Wolf Road Prairie is considered to be one of the finest examples of black soil prairie in the Midwest due to its relatively undisturbed state. Additionally, the variety of plant communities adjacent to the prairie result in a great diversity of plant species. In excess of 150 species of prairie plants have been observed in the area.

Refer to previous proposals for detailed identification of site flora and fauna.

GOALS

The goal of the deer management program, as proposed by the FPDCC, is to maintain the deer herds on district properties at a level that will allow for both regeneration and continued survival of native vegetation while maintaining a healthy deer herd.

OBJECTIVES

- To maintain indicator plant browse pressure at 25 percent or lower.
- To maintain deer herd density at a level that will allow a 25 percent or lower plant browse rate to be maintained.

METHODS

- Procedures used during previous years will continue.
- Marksmen will be positioned in elevated locations and use firearms with telescopic sights. All collection methods will be IDNR approved; deer carcasses will be processed and donated in accordance with Illinois Department of Natural Resources regulations.

- The FPDCC will conduct aerial census counts when conditions allow. This count will give a minimum estimate of deer numbers for the site.
- The Forest Preserve District of Cook County initially proposes to remove 25 deer during the 2019/2020 winters with a start date of 02 Jan 2020.

DOCUMENTATION OF ADVERSE EFFECTS

At Wolf Road Prairie and Bemis Woods, there is significant evidence of browsing damage to species in the families, *Liliaceae* and *Orchidaceae*. There has also been a history of residential complaints of deer damage that has occurred on private property surrounding FPDCC property.

In 1993, at Bemis Woods, 41 individual plants were recorded of the Michigan lily, (*Lilium michiganense*). Each of the 41 plants observed had been browsed by deer and rendered sterile that year. A similar study, conducted from 1994-2012 recorded fewer individuals of the Michigan Lily and a lower deer browse percentage (Graph #1, Tables #1, and #2). The reduction in browse pressure was believed to be due to deer population control. Miller et al. (refer to previous proposals) indicated that species of the family, *Liliaceae*, (i.e. Michigan lily), are highly susceptible to browse damage. However, from 2004-2008 deer removal stopped and the lack of effective deer management has caused a significant increase in deer browse rates. In the winter of 2010, 150 deer were removed which we believe to have an impact on the browse rate as Graph 1, Table 1, and Table 2 illustrates.

In 1999-2001, approximately 12 acres were burned (Graph #2). It is important to understand the role of fire and its necessity in impoverished or ailing environments. Fire and brush clearing/removal is an essential ecological tool that aids to restore biological diversity. (Burning did take place in 2010 but the data was unavailable.) In 2014 the FPDCC had its best year ever in brush clearing and burn rate. It is hoped that the clearing and burning in combination with deer removals will continue the increasing trend of reproduction in the Michigan Lily. In 2015 the FPDCC added Wild Indigo *Baptisia* as a indicator species to increase the robustness of the documentation. (Graph 1A) *Baptisia* is known as a highly preferred palatable plant that can be used as a metric to document the efficacy of deer management on site.

Pronounced anthropogenic land changes in the Chicago region have permanently altered the integrity and function of these once healthy ecosystems. The role of fire is one of those essential ingredients that can restore health. Continued deer management coupled with landscape management is the basic building blocks that re-enforce that healing process.

We would like to request a permit to continue management of the herd. We also believe that between removal of the exotics by burning and mowing/cutting along with deer management that this will promote a healthy ecosystem.

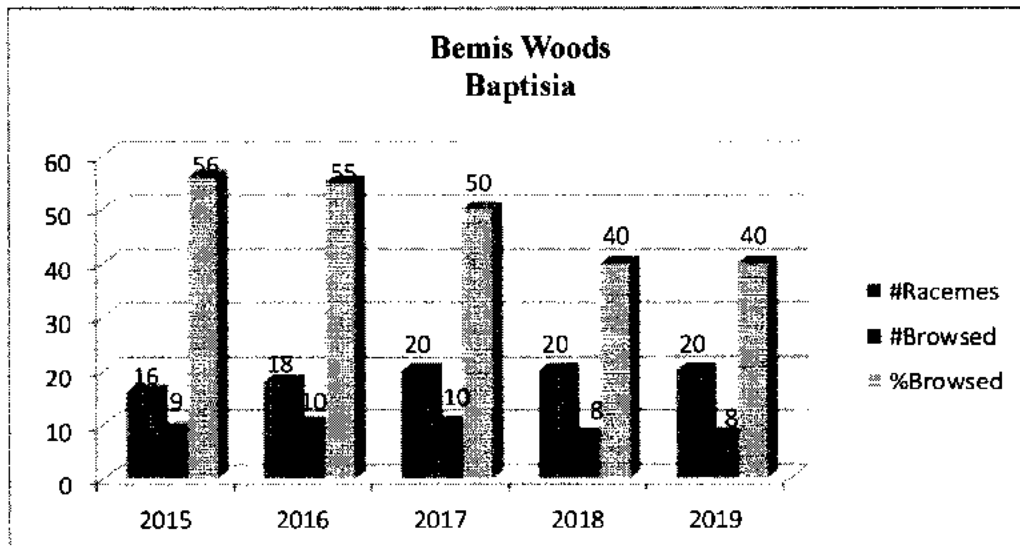
Table 1. Forest Preserve District of Cook County Bemis Woods Deer Count

Year	Deer Count	Deer Density	Deer Harvest	Estimated Population
1991	38	25	na	66
1992	na	na	na	na
1993	61	36	30	100
1994	32	19	30	83
1995	42	25	7	57
1996	na	na	na	33
1997	43	25	15	33
1998	na	na	21	29
1999	38	22	20	25
2000	na	na	na	na
2001	na	na	na	na
2002	62	36	0	25
2003	60	34	14	82
2004	na	na	0	90
2005	na	na	0	86
2006	na	na	0	93
2007	na	na	0	95
2008	na	na	0	89
2009	na	na	30	93
2010	na	na	150	44
2011	na	na	82	53
2012	na	na	0	60
2013	na	na	73	53
2014	na	na	41	43
2015	na	na	29	37
2016	na	na	25	33
2017	na	na	25	30
2018	na	na	25	33
2019	n/a	na	25	37

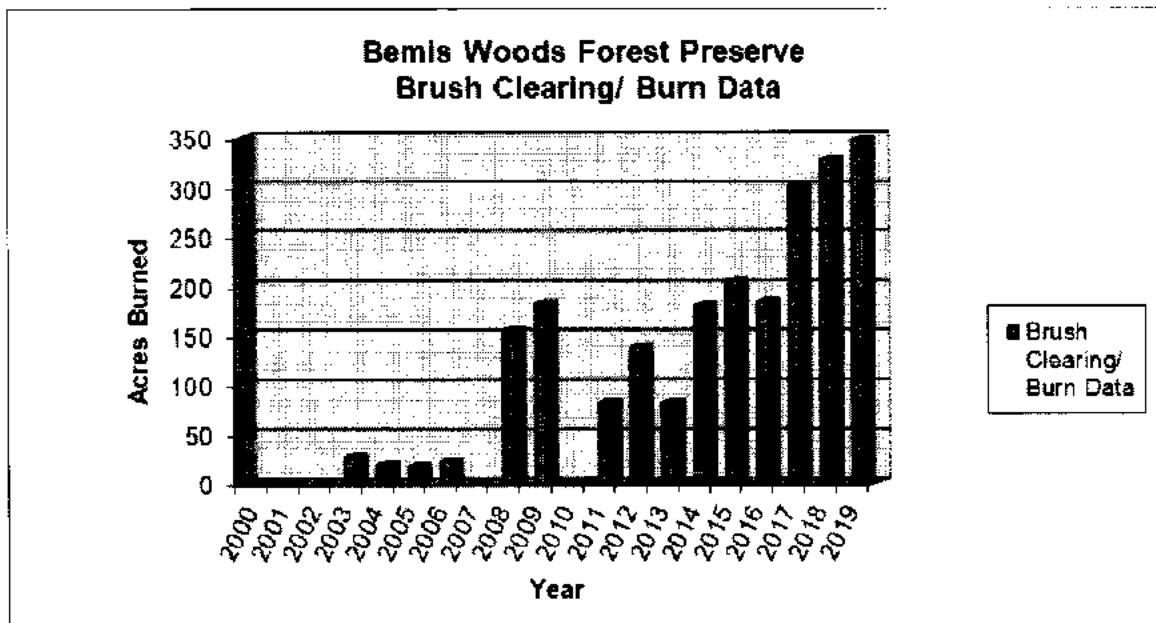
Table 2. Forest Preserve District of Cook County Bemis Wood Michigan Lily (*Lilium michiganense*) percentage of deer browse.

Year	# of buds	# buds browsed	% browse buds Michigan Lily
1991	38	25	66
1992	na	na	na
1993	41	41	100
1994	36	30	83
1995	28	16	57
1996	30	10	33
1997	30	10	33
1998	34	10	29
1999	32	8	25
2002	32	8	25
2003	22	18	82
2004	20	18	90
2005	28	24	86
2006	28	26	93
2007	20	19	95
2008	18	16	89
2009	28	26	93
2010	32	14	44
2011	30	16	53
2012	30	18	60
2013	30	16	53
2014	30	13	43
2015	30	11	37
2016	30	10	33
2017	30	9	30
2018	30	10	33
2019	30	11	37

Graph 1. FPDCC Bemis Woods – *Baptisia*



Graph #2. Bemis Woods Forest Preserve Brush Clearing/ Burn Data



No data for 2010 has been received at this time.

Legal Description for Bemis Woods

Proviso Township section 26, 27, 28, 29, 31, 32, 33, 35 T39N, R12E.

FOREST PRESERVE DISTRICT OF COOK COUNTY

GLENWOOD/ZANDER COMPLEX DEER REMOVAL REQUEST 2019/2020

SITE DESCRIPTION

The Glenwood-Zander Complex (GZC) is a 1719 ha tract within the Thorn Creek Division of the FPDCC. It is located approximately 34 km (21 mi) south of downtown Chicago in southern Cook County near the towns of Glenwood, Thornton, South Holland, and Lansing. Within this area lie two dedicated Illinois Nature Preserves, Jurgensen Woods (49 ha, 120 acres) and Zander Woods (179 ha, 440 acres), both dedicated in 1966. These two areas were granted nature preserve status as a result of being remnants of the vast prairies and woodlands that existed on the sandy plains of what used to be glacial Lake Chicago. A number of rare, endangered or threatened species of orchids are present, which are subject to selective deer browsing. Refer to past proposals for details of site flora and fauna.

GOALS:

The goal of the deer management program, as proposed by the FPDCC, is to maintain the deer herds on FPDCC properties at a level which will allow for both regeneration and continued survival of native vegetation while still maintaining a healthy deer herd.

OBJECTIVE:

- To maintain indicator plant browse pressure at 25 percent or lower.
- To maintain deer herd density at a level that will allow a 25 percent or lower plant browse rate to be maintained.

METHODS:

- Marksmen will be positioned in elevated locations, using firearms with telescopic sights. All deer carcasses will be processed and donated in accordance with Illinois Department of Natural Resources regulations.
- The FPDCC will conduct aerial census counts when conditions allow. This count will give a minimum estimate of deer numbers for the site.
- Vegetation measurements will be continued on site. This currently involves monitoring browse-sensitive endangered and threatened indicator species.
- The Forest Preserve District of Cook County initially proposes to remove 50 deer during the 2019/2020 winters with a start date of 02 Dec 2019.

DOCUMENTATION OF ADVERSE EFFECTS

As recently as the mid-1980's deer were uncommon in the Glenwood Zander Complex (GZC), but in the 1990's they became much more common. Deer can now be seen daily, often at midday, and sometimes in groups of 10-20 animals. Deer beds and trails have trampled many prairie plants, and a browse line has developed. During the 2011 growing season there was less deer damage to the wildflower species. Wildflowers, in many areas, seem more abundant. The FPDCC has burned every year since 2000 on this site. The amount burned has varied every year since; from less than one acre to 108 acres (Graph 1) dependent on weather and staff. With several years of the deer program the browse line has begun to disappear in some areas.

To document the decline of certain plants at GZC, FPDCC staff and volunteer stewards counted the stems of individual browsed and flowering plants (Table 1 and Graphs 2,3,4,5, and 6). Four of the monitored species showed browse pressure rates in excess of 70% during 1990-1994. After deer removal began at the site, browse pressure declined significantly between 1995-2000. Rare plants such as *Calopogon tuberosus*, *Hypericum kalmianum*, and *Pogonia ophioglossoides* actually flowered. In 2000, only 2 deer were removed, and browse pressure was in excess of 80% for the state threatened *C. tuberosus* and the state endangered *Comptonia peregrina* (Table 1). Due to the collection of several hundred deer over the last few deer collection seasons there has been a reduction in browse pressure on the vegetation as seen in (Table 1 and Graphs 2, 4, 5, and 6). The 2012 survey season showed that the browse pressure is significantly less at the botanical monitoring stations which suggests that the deer reduction program is working. However, for *C. tuberosus* and *H. kalmianum* we are still above our 25% goal and would like to continue with our management plans. In 1999-2001, approximately 12 acres were burned (Graph #1). It is important to understand the role of fire and its necessity in impoverished or ailing environments. Fire and brush clearing/removal is an essential ecological tool that aids to restore biological diversity. Pronounced anthropogenic land changes in the Chicago region have permanently altered the integrity and function of these once healthy ecosystems. The restorative role of fire is one of those essential ingredients that can restore health. Continued deer management coupled with landscape management is the basic building blocks that re-enforce that healing process. This can eventually lead to biological diversity on many scales.

2015 saw a near complete burn for the Zander complex. Highlights include a vast increase in Star flower and the discovery of *Carex Atlantica atlantica*, the only known location in northeast Illinois. It is disappointing that a number of orchids have not dramatically increased with increased burning and water fall for 2015. The thought is the dropping water table from years of drought may have left an impact on this site (G. Wilhelm per communication).

We would like to request a permit to continue management of the herd. We also believe that between removal of the exotics by burning and mowing/cutting along with deer management that this will promote a healthy ecosystem.

2016 saw a reduction in burn acres with shift of activity north to Wampum Lake. We are planning the thinning of 87 acres of trees to increase ground light at Zander this winter. The increase in light will increase the numbers of graminoid plants.

2017 saw an incredible flush of growth due to thinning and rainfall. The increase in graminoid growth should equally enhance fire fuel levels going forward.

2019 saw a huge increase in vegetation density due to a wet year and over 100 acres of clearing. An entire Calumet beach ridge has been cleared. We hope for a dramatic increase of some listed floral species (*Calapogon*, *Capnoides*...).

Graph #1

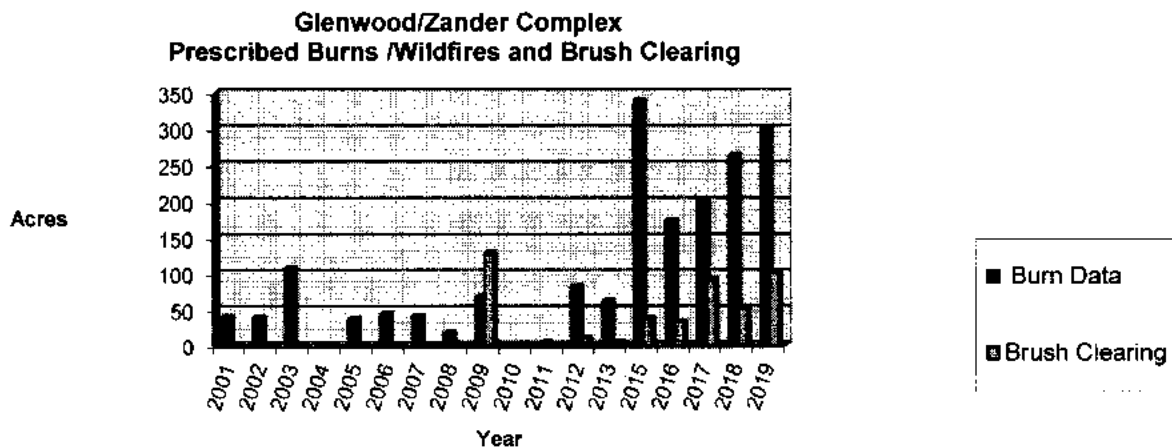


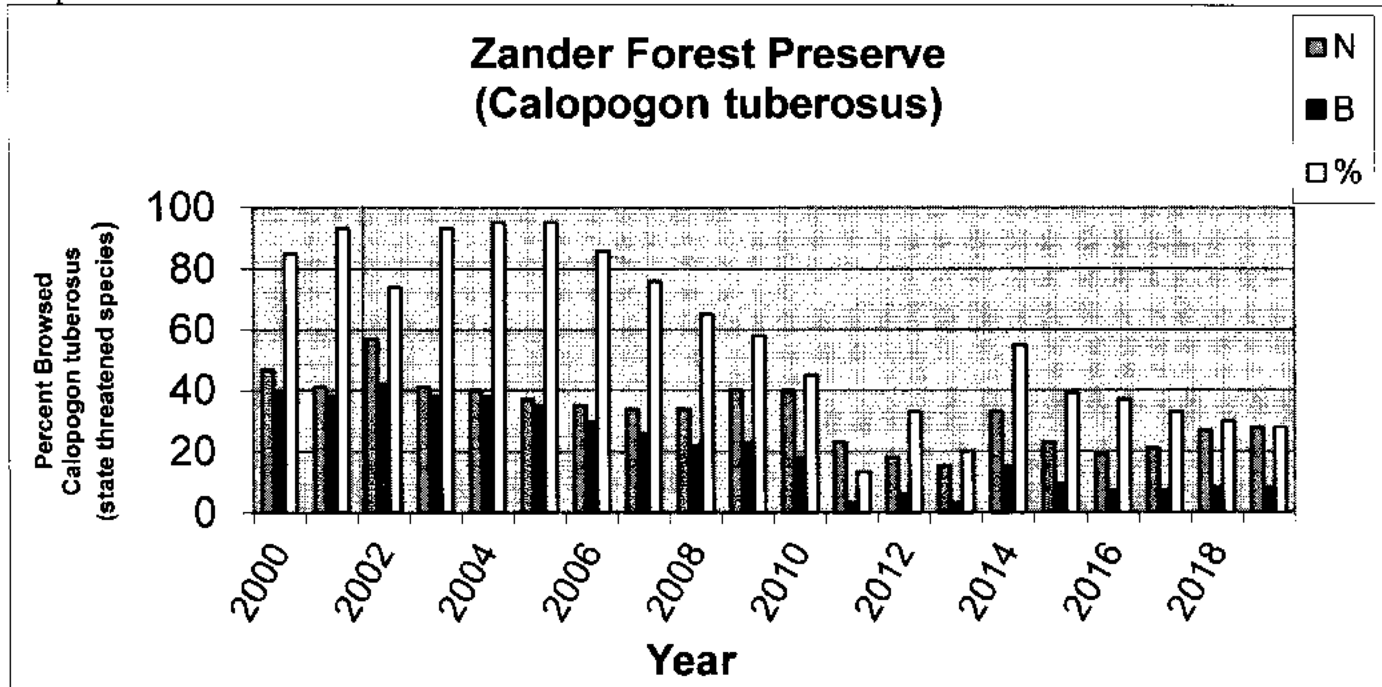
Table 1. Number of individual plants (N), the number of these plants that were browsed by deer (B), and the percentage browsed for selected plant species in the Glenwood-Zander Complex of the Thom Creek Division of the Forest Preserve District of Cook County (M. Nowak, steward; P. Strand, FPDCC; FPDCC Wildlife Biology Staff).

Year	Species	N	B	%	Year	Species	N	B	%
1990	N	41	110	16	***	***			
	B	38	107	14	***	***			
	%	93	97	88	***	***			
1991	N	30	76	8	18	***			
	B	30	68	8	18	***			
	%	100	89	100	100	***			
1992	N	15	61	2	20	***			
	B	15	60	2	20	***			
	%	100	98	100	100	***			
1993	N	37	58	16	20	***			
	B	36	55	15	20	***			
	%	97	95	94	100	***			
1994	N	47	55	28	20	***			
	B	40	50	20	18	***			
	%	85	91	71	90	***			
1995	N	8	52	15	20	15			
	B	8	44	10	15	1			
	%	0	85	67	75	7			
1999	N	49	3	26	20	46			
	B	12	0	0	15	0			
	%	25	0	0	75	0			
2000	N	47	12	16	20	72			
	B	40	0	0	18	0			
	%	85	0	0	90	0			
2001	N	41	3	14	20	84			
	B	38	0	1	15	0			
	%	93	0	7	75	0			
2002	N	57	4	18	20	64			
	B	42	0	9	15	0			
	%	74	0	50	75	0			
2003	N	41	0	12	20	71			
	B	38	0	4	12	0			
	%	93	0	33	60	0			
2004	N	40	1	10	20	63			
	B	38	0	4	10	4			
	%	95	0	40	30	6			

2005	N	37	3	9	20	78
	B	35	0	5	15	0
	%	95	0	55	75	0
2006	N	35	1	5	20	64
	B	30	0	3	18	38
	%	86	0	60	90	84
2007	N	34	4	4	20	72
	B	26	0	2	8	18
	%	76	0	50	40	40
2008	N	24	2	6	20	70
	B	22	0	0	2	8
	%	65	0	0	10	11
2009	N	40	38	14	20	18
	B	23	8	8	0	0
	%	58	21	57	0	0
2010	N	40	38	18	20	6
	B	18	3	11	0	0
	%	45	8	61	0	0
2011	N	23	11	8	20	0****
	B	3	3	1	0	0
	%	13	27	13	0	0
2012	N	18	5	6	20	0****
	B	6	1	1	2	0
	%	33	20	18	10	0
2013	N	15	5	4	20	0
	B	3	1	1	4	0
	%	20	20	25	20	0
2014	N	33	11	9	20	0
	B	18	4	1	4	0
	%	55	26	43	20	0
2015	N	23	8	8	20	0
	B	9	3	3	2	0
	%	39	38	38	10	0
2016	N	19	8	9	20	0
	B	1	4	3	4	0
	%	27	50	33	20	0
2017	N	21	10	22	20	0
	B	7	4	4	5	0
	%	33	40	18	25	0
2018	N	27	10	18	20	0
	B	8	2	10	0	0
	%	30	20	56	0	0
2019	N	20	11	22	11	0
	B	8	2	11	2	0
	%	28	18	50	11	0

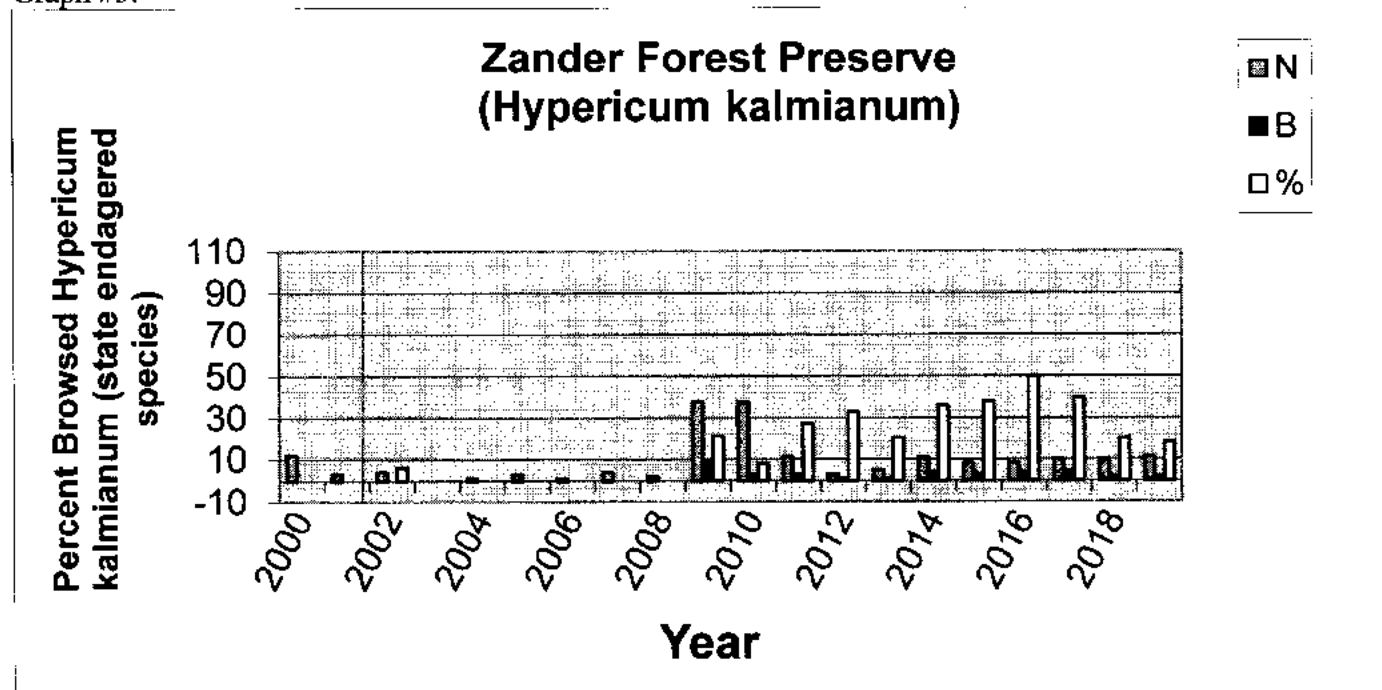
* denotes state threatened species, ** denotes state endangered species, *** no data collect, **** no plants found at monitoring station, *****new plant added in 2011 to monitoring program.

Graph #2.



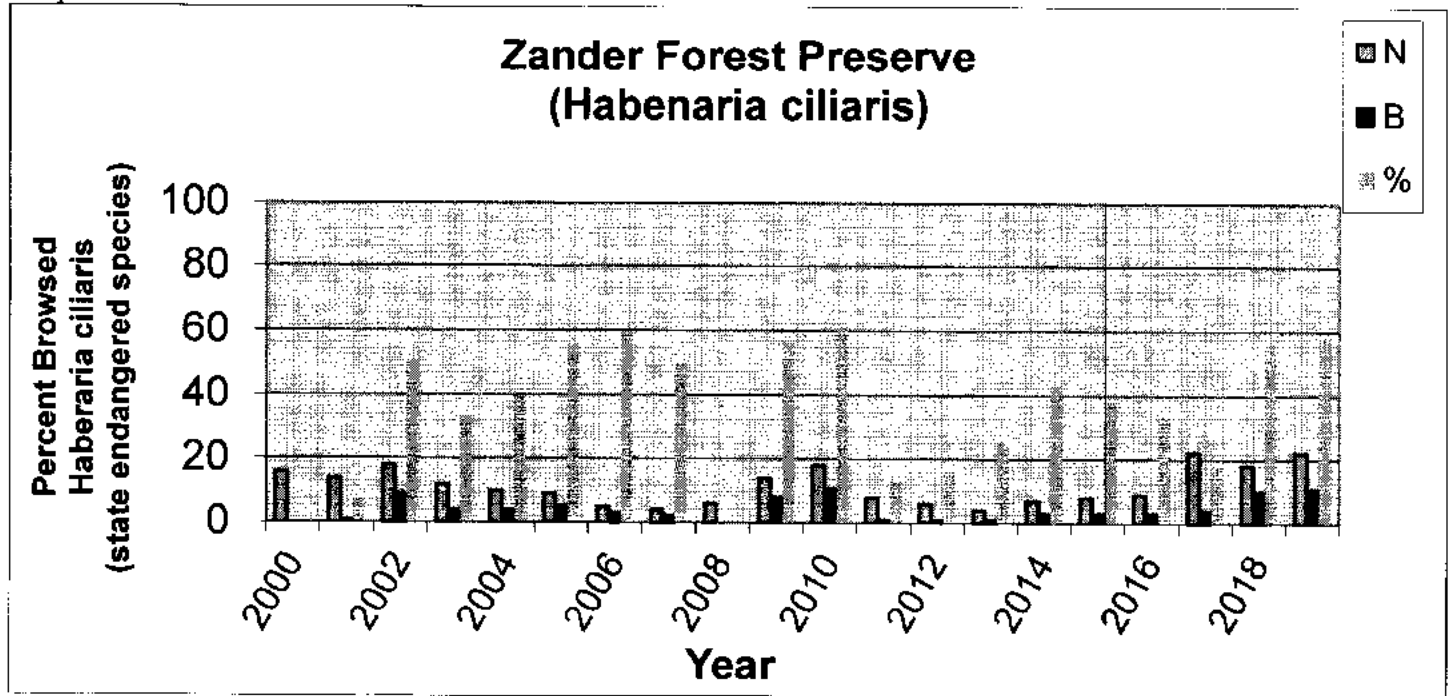
N = Number of individual plants in bloom
B = the number of these plants that were browsed by deer
% = percentage browsed for selected plant species

Graph #3.



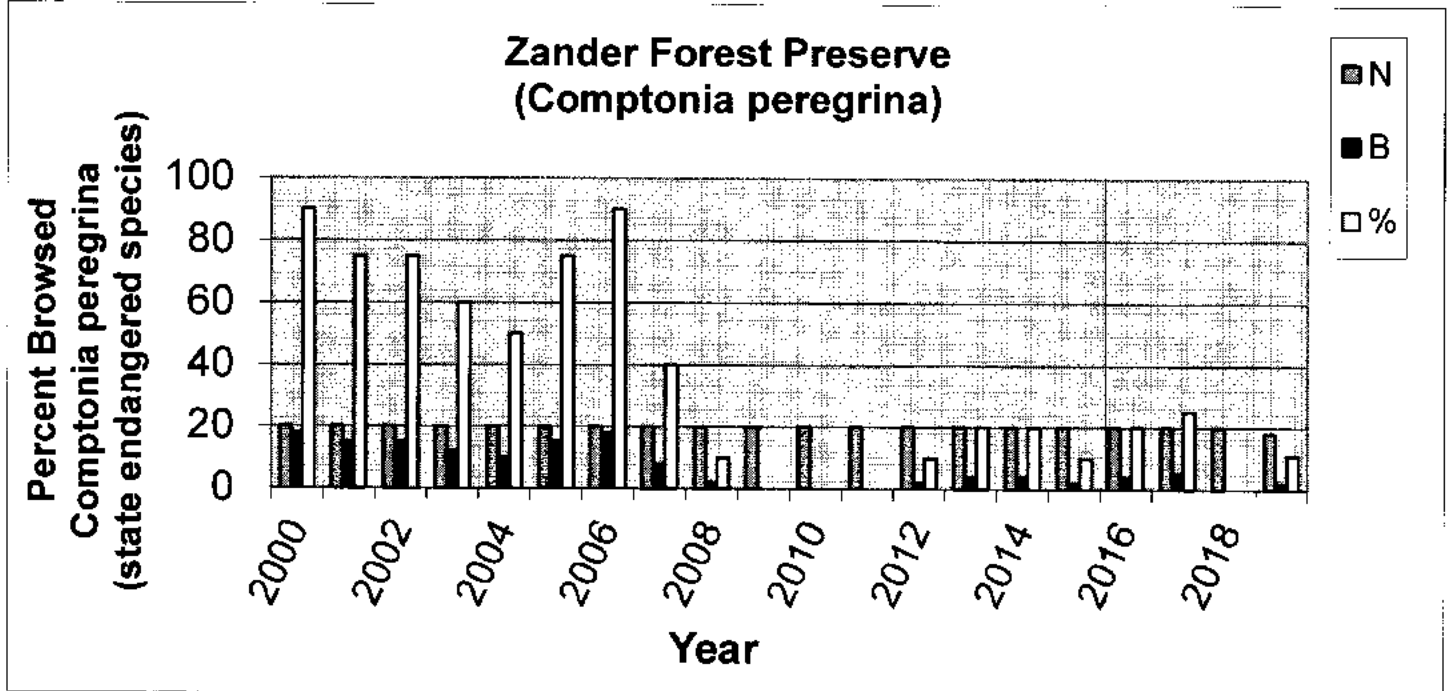
N = Number of individual plants in bloom
B = the number of these plants that were browsed by deer
% = percentage browsed for selected plant species

Graph #4.



N = Number of individual plants in bloom
 B = the number of these plants that were browsed by deer
 % = percentage browsed for selected plant species

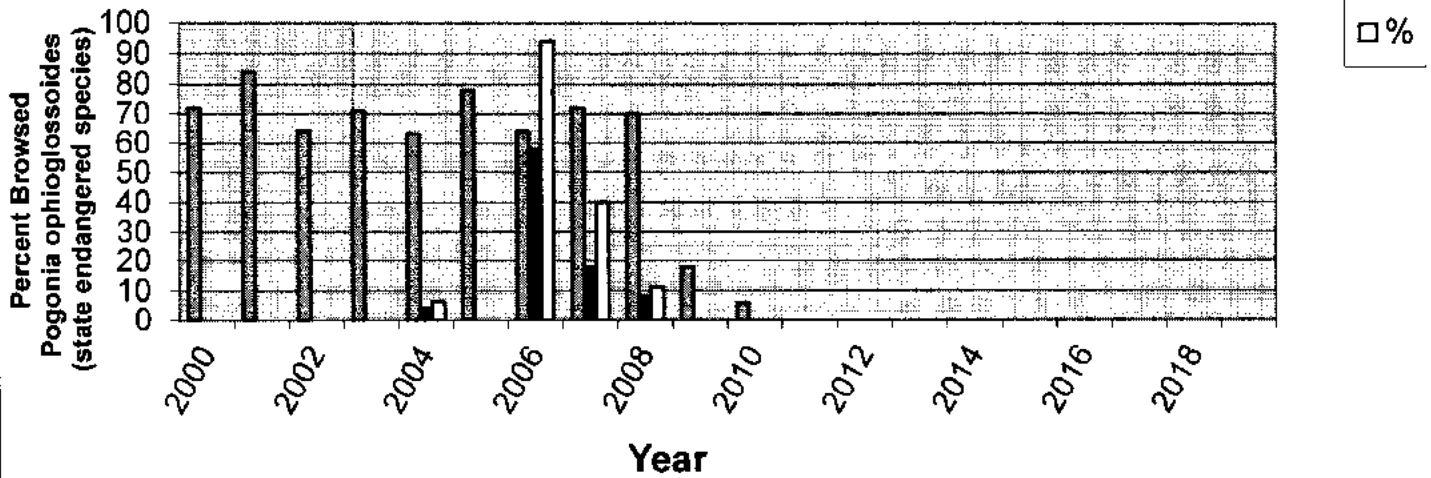
Graph #5.



N = Number of individual plants in bloom
 B = the number of these plants that were browsed by deer
 % = percentage browsed for selected plant species

Graph # 6

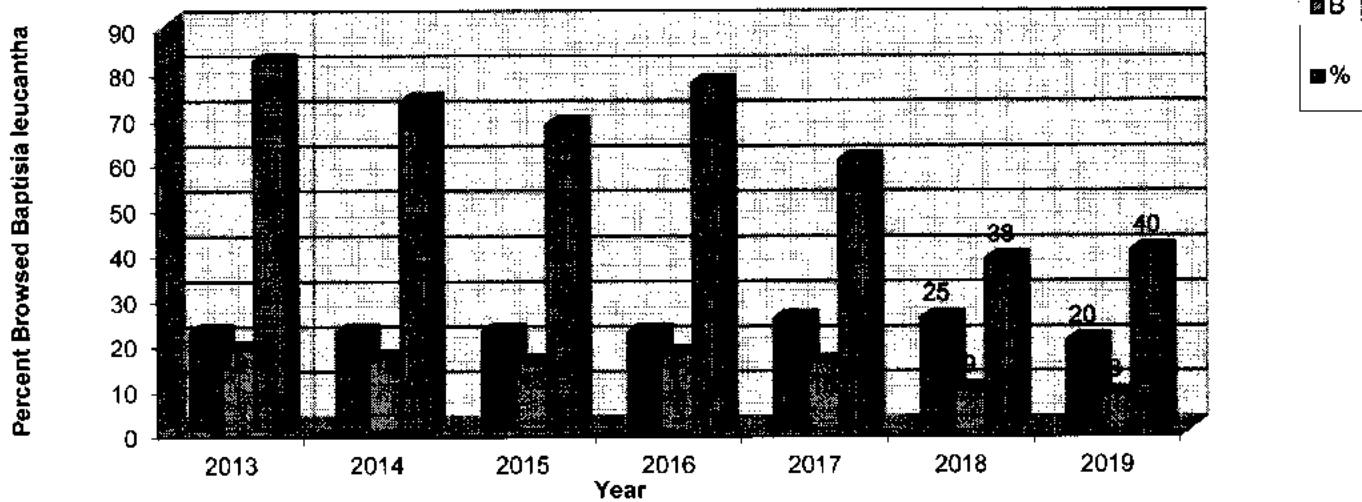
Zander Forest Preserve (*Pogonia ophioglossoides*)



N = Number of individual plants in bloom
B = the number of these plants that were browsed by deer
% = percentage browsed for selected plant species

Graph # 7

Zander Forest Preserve (*Baptisia leucantha*)



N = Number of individual plants in bloom
B = the number of these plants that were browsed by deer
% = percentage browsed for selected plant species

Legal Description for the Glenwood/Zander Complex

Thornton Township section 25, 26, 27, 34, and 35. T36N, R14E.
Bloom Township section 1, 2, 3, 4, 6, 9 and 10. T36N, R15E.

FOREST PRESERVE DISTRICT OF COOK COUNTY

NED BROWN FOREST PRESERVE DEER REMOVAL REQUEST 2019/2020

The Ned Brown Forest Preserve and Busse Woods, located in the northwest part of Cook County, is the site of the Busse Reservoir and Busse Woods Nature Preserve (BWNP). The site was given nature preserve status because of its mature second growth oak (*Quercus alba*, *Q. macrocarpa*, *Q. rubra*) forest, the diversity of plant species, high quality flatwoods, and shrub-swamps. It is the only site in Cook County that was given Federal Natural Landmark Status. In autumn 1983, the Illinois Natural History Survey (INHS) initiated research on white-tailed deer in the Chicago Metropolitan area. Busse Woods is one of those principal study areas. The INHS study established the need to reduce the deer herd, after assessing the impact to the vegetation (i.e. percent cover, density of herbaceous and woody under story plants, exclosure study) and documenting the reduced vigor of the herd (i.e. low fecundity of the deer, reduced body size, and low-fat deposition). (Refer to past proposals)

GOALS: The goal of the deer management program, as proposed by the FPDCC, is to maintain the deer herds on District properties at a level which will allow for both regeneration and continued survival of native vegetation while still maintaining a healthy deer herd.

OBJECTIVE:

- To maintain a browse rate of 25 percent or less.
- To maintain deer herd density at a level that will allow a browse rate for the 1995 plant cover values to be maintained.

METHODS:

- Procedures used during previous years will continue.
- Marksmen will be positioned in elevated locations, using firearms with telescopic sights. All deer carcasses will be processed and donated in accordance with Illinois Department of Natural Resources regulations.
- The FPDCC will conduct aerial census counts when conditions allow. This count will give a minimum estimate of deer numbers for the site.
- Vegetation measurements will be continued on site. This currently involves monitoring within INHS established plots and transects according to INHS established monitoring protocol.
- The Forest Preserve District of Cook County proposes to remove 50 deer during the 2019/2020 winter season. Start date being 02 Jan 2020.

SITE DESCRIPTION:

Busse Woods Nature Preserve (BWNP) is a 179ha (440 acre) site in the 1508ha (3725 acre) Ned Brown Forest Preserve. The entire area was purchased by the FPDCC prior to 1960. The Ned Brown Preserve is approximately twelve (12) miles west of Chicago. The nature preserve was dedicated as a State Nature Preserve in 1964 and as a Federal Landmark in 1980.

DOCUMENTATION OF ADVERSE EFFECTS:

A. Qualitative: As late as 1994, visual inspection of BWNP revealed a site that had been excessively browsed. The native woody understory had been reduced to a few individuals. European Buckthorn (*Rhamnus cathartica*) became common near the woodland edges and was presumably competing with the more palatable native woody species such as Hop Hornbeam, (*Ostrya virginiana*), Red Oak (*Q. rubra*), White Oak, (*Q. alba*), Bur Oak (*Q. macrocarpa*), and Sugar Maple (*Acer saccharum*). The spring ephemerals were reduced severely in density. Many ephemerals, observed as late as 1979, were rare or non-existent by 1985. Bloodroot (*Sanguinaria canadensis*), Painted Trillium (*Trillium undulatum*), Large White Trillium (*T. grandiflorum*), and Closed Gentian (*Gentiana andrewsii*) (Lee Baker, per. comm.) are several of those plant species. In the spring of 2001, the ephemeral herbaceous flora increased tremendously. Some examples of this increased diversity would include Wild Leek (*Allium tricoccum*), False Rue Anemone, (*Isopyrum biternatum*), Wood Anemone (*Anemone quinquefolia*), Rue Anemone (*Thalictrum dioicum*), Virginia spotted Waterleaf (*Hydrophyllum virginianum*), Yellow Violet (*Viola pubescens*), Wild Ginger (*Asarum canadense*), Smooth Sweet Cicely (*Osmorhiza longistylis*), and Woodland Phlox (*Phlox divaricata*). The highly palatable graminoid flora, which was severely browsed in the past, has also increased throughout the preserve. Long-awned Wood Grass, (*Brachyelytrum erectum*), Silky Rye (*Bromus villosus*), Bottlebrush Grass (*Hystrix patula*), Nodding Fescue (*Festuca obtusa*), and Woodland Brome (*Bromus pubescens*) are several graminoid species that have been noted to increase. The cryptogam flora has also become more pronounced and would include the Lady Fern (*Athyrium filix-femina michauxii*), Fragile Fern (*Cystopteris fragilis*), Maidenhair Fern (*Adiantum pedatum*), Spinulose Shield Fern (*Dryopteris spinulosa*), Broad Beech Fern (*Dryopteris hexagonoptera*), Cut-leaved Grape Fern (*Botrychium dissectum obliquum*), Rattlesnake Fern (*Botrychium virginianum*), Marsh Shield Fern (*Thelypteris palustris*), and Sensitive Fern (*Onoclea sensibilis*). The Purple-Fringed Orchid (*Habenaria psycodes*), an Illinois state endangered species, was observed in 1979 (Illinois Natural Heritage Database). This orchid was rediscovered in June 1991 by staff from the IDNR and FPDCC. Recent observation and monitoring has indicated that the vegetation improving because of deer management. A 20-acre plot of woodland was thinned in 2013. The removal of trees, 90 + % Sugar Maple, improved ambient light levels from <10% to about 25%. The result was a flush of native graminoid growth such that the ground was completely covered. Michigan Lily which has been documented for decades bloomed and fruited for the first time.

B. Quantitative: Data gathered from 50 plots along 25 transects since the inception of deer management indicates that initially the site was very depauperate, but that vegetation has improved under deer management (see Figure 1, 2, 3, 4, & 5). The management program at Busse Woods has indicated that vegetative recovery can be accomplished, but is slow, due to the extremely degraded condition of the site at the inception of the deer management program. During the 2013 monitoring season of the site the browse rate of several species was well over 25

percent. (see figures 6, 7, 8, & 9) In the nature preserve, FPDCC staff conducted a prescribed burn in the fall of 2000 which also included the current vegetation transects. A prescribed burn in August 2001, had limited success because of very wet conditions. However, in following years we had better success with burning (see Figure 10). South of Ned Brown we receive numerous deer related complaints from home owners and the Village of Elk Grove. We increased our number of deer removals to try and address these complaints (see Figure 11). With continued management of the Busse deer herd along with prescribed burns, mowing and brush removal; we hope to return or maintain browse pressure at or below the 1995 levels. This reduction will help to facilitate the restoration of the area and to increase biodiversity, by allowing native species to thrive. It is hoped the reduction in herd size could minimize the complaints of both the village and the home owners.

In August 2012 Dr. Gerould Wilhelm completed a Floristic Report on Busse Woods (personal communication). In the above report, he indicated finding 300 species in Busse Nature Preserve. The Nature Preserve had a F.Q.I. (Floristic Quality Index) of 81, Mean C value of 5.0 and this was during a drought. "Areas that register in the 5.0's and higher are extremely rare and of paramount importance; they represent less than 0.05% of the land area in the Chicago region." (Wilhelm, personal communication)

The data gathered on the herbaceous flora varies widely on the site from year to year, because of the abiotic and biotic factors that operate independently of the deer. This demonstrates the need to illustrate the effects of deer herbivory by the utilization of known indicator plant species (see Figure 1, 2, 3, 4, & 5).

2014 had normal-high water levels. The FPDCC added tree thinning to management. The effect was dramatic. There was an increase in ground cover (*Carex* spp., *Apios americana*) patch size. Ground cover increased from approximately 30% to over 50%. Ambient light increased from 6% to 27%. And, to increase robustness of data a conservative indicator plant was added (*Mitella diphylla*) Bishop's Cap (6/18) = 33% browse.

2015 had excellent water levels, vegetative growth was robust. Transects were not located due to vegetative growth and inability of biologist to find metric stations. Stations will be relocated and monitored in 2016.

To provide additional documentation, new indicator species were monitored. Michigan Lily reproductive parts and Great Water-leaf *Hydrophyllum appendiculatum* reproductive parts. We also continued to monitor Bishop's cap. Continued monitoring of vegetation will occur in 2016.

Year	Bishop's Cap			Michigan Lily			Gr. Water-leaf		
	Total counted	Browsed	% Browsed	Total counted	Browsed	% Browsed	Total counted	Browsed	% Browsed
2014	18	6	33						
2015	22	7	32	19	8	42	5	2	40
2016	32	6	20	42	23	55	6	2	33
2017	34	5	15	45	23	51	5	2	40
2018	34	5	15	42	24	57	6	2	33
2019	34	11	32	40	20	50	5	1	20

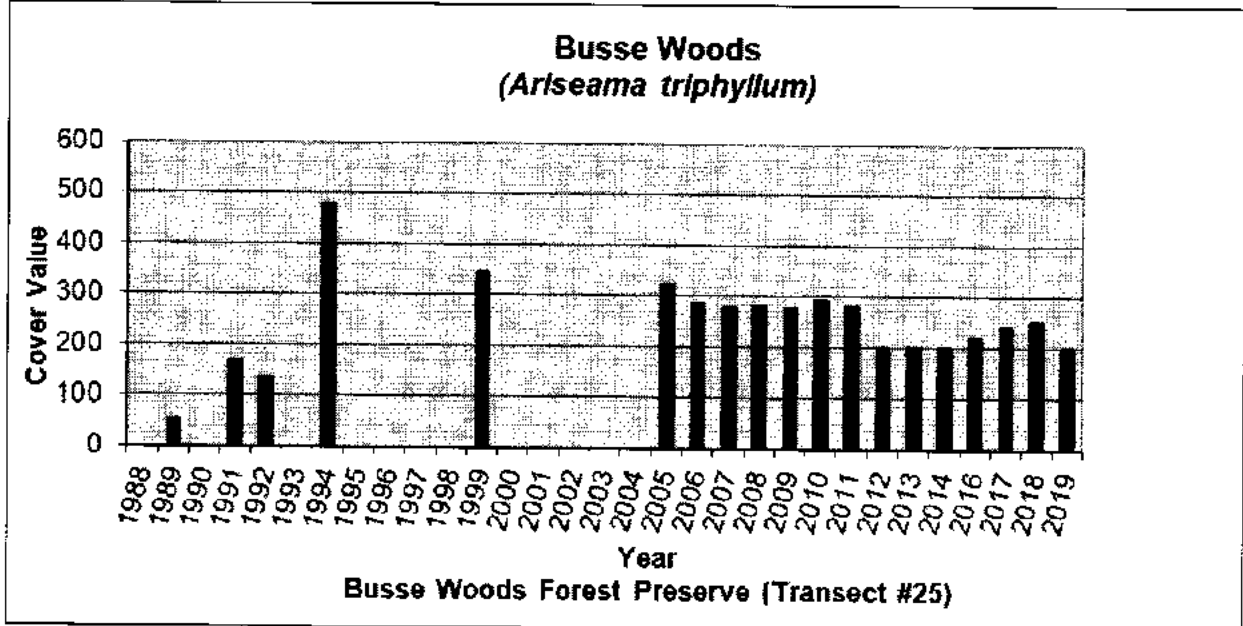
We would like to request a permit to continue management of the herd. We also believe that between removal of the exotics by burning and mowing/cutting along with deer management that this will promote a healthy ecosystem.

2016 showed continued increase in number of individual plants and increase in robustness. As more thinning is completed, more bare ground will be vegetated. 86 acres are slated for clearing

this coming winter.

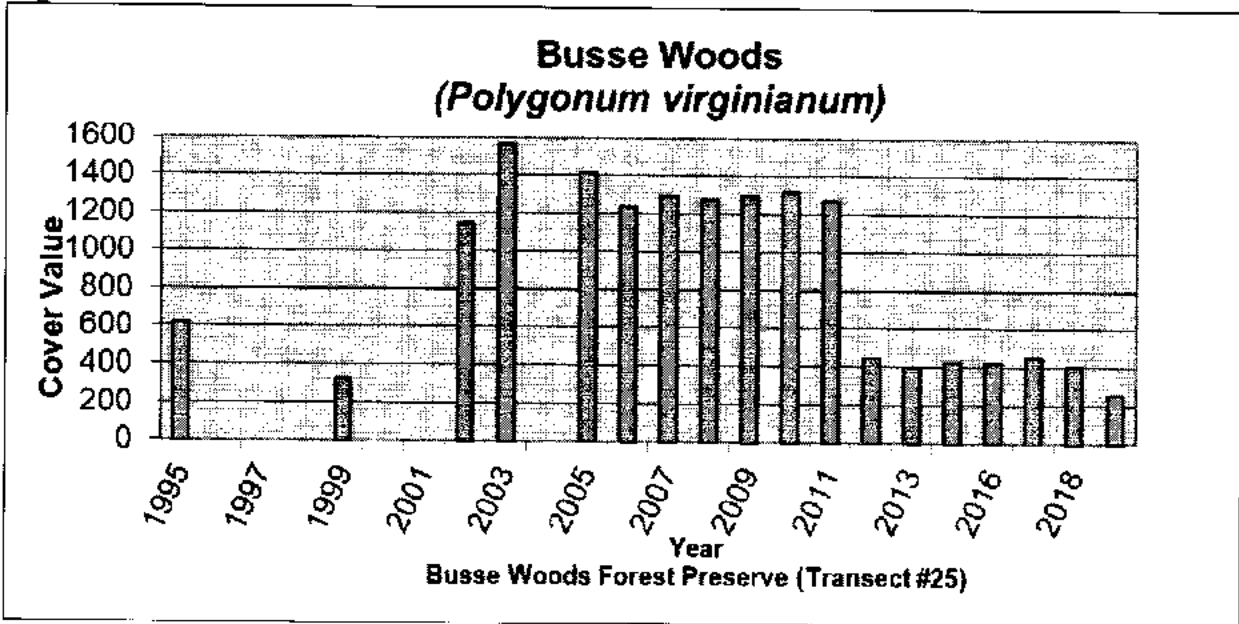
2019 saw a large increase in amphibian production due to increases in moisture and graminoid cover.

Figure #1.



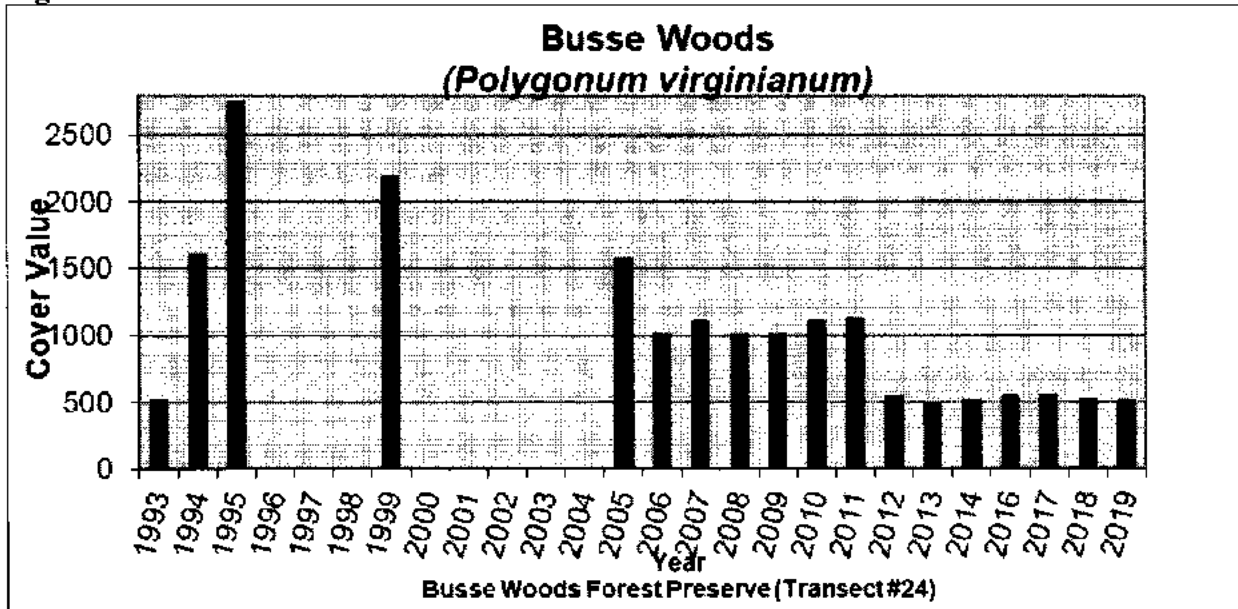
Cover value is the numbers of millimeters that a plant species is covering the 20m transect line.

Figure #2.



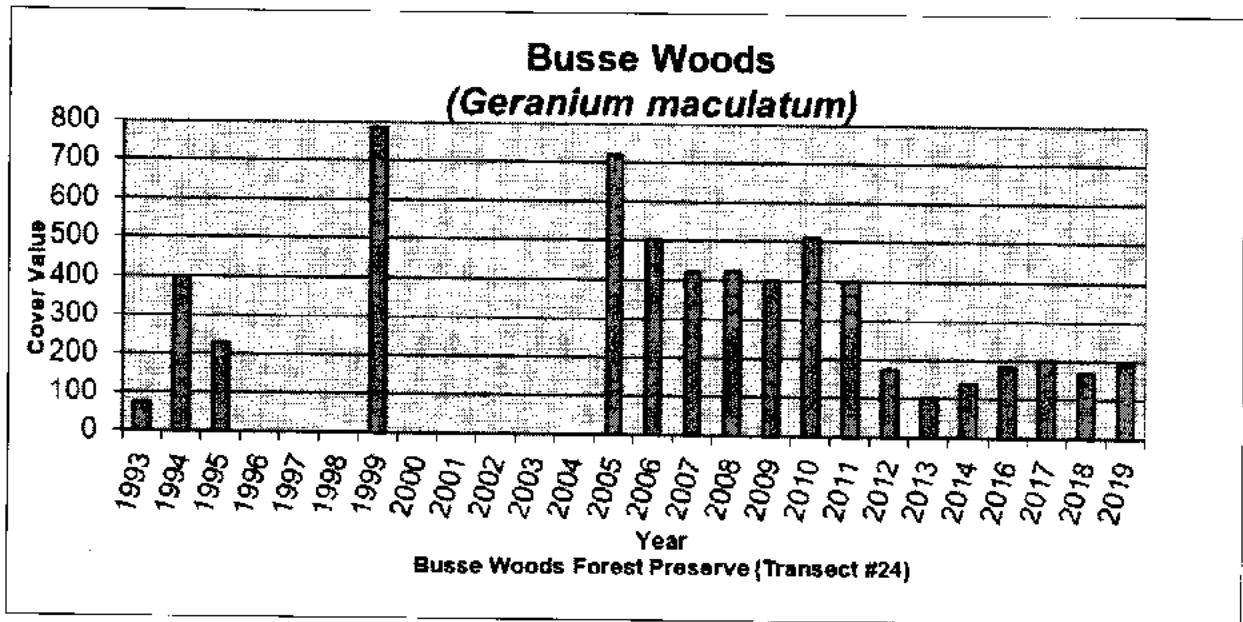
Cover value is the numbers of millimeters that a plant species is covering the 20m transect line.

Figure #3.



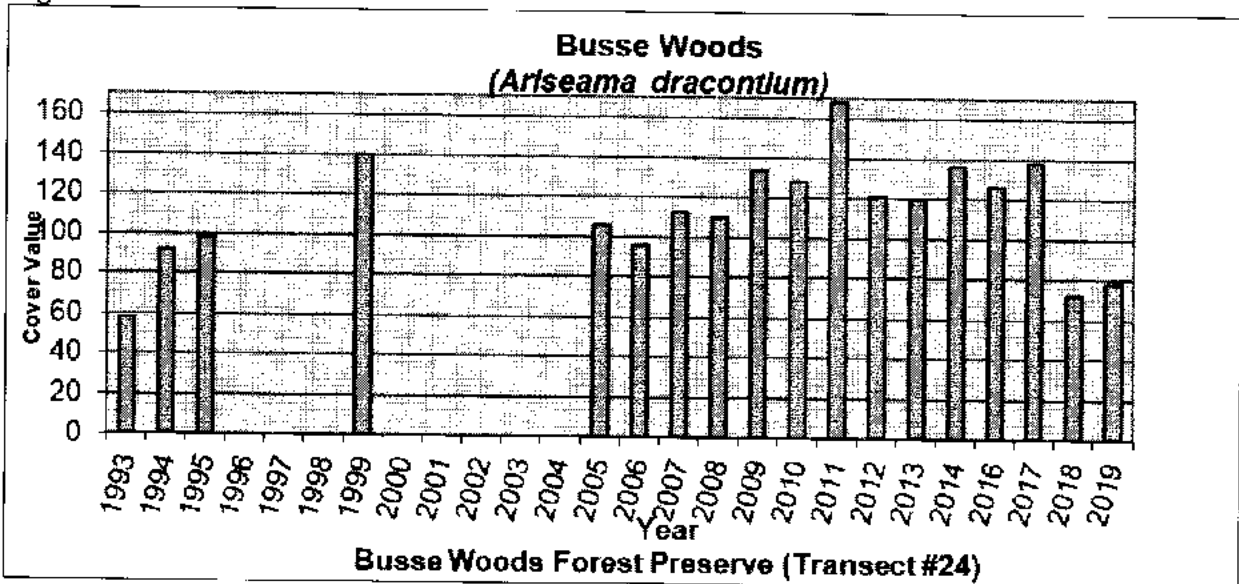
Cover value is the numbers of millimeters that a plant species is covering the 20m transect line.

Figure #4.



Cover value is the numbers of millimeters that a plant species is covering the 20m transect line.

Figure #5.



Cover value is the numbers of millimeters that a plant species is covering the 20m transect line.

Figure #6.

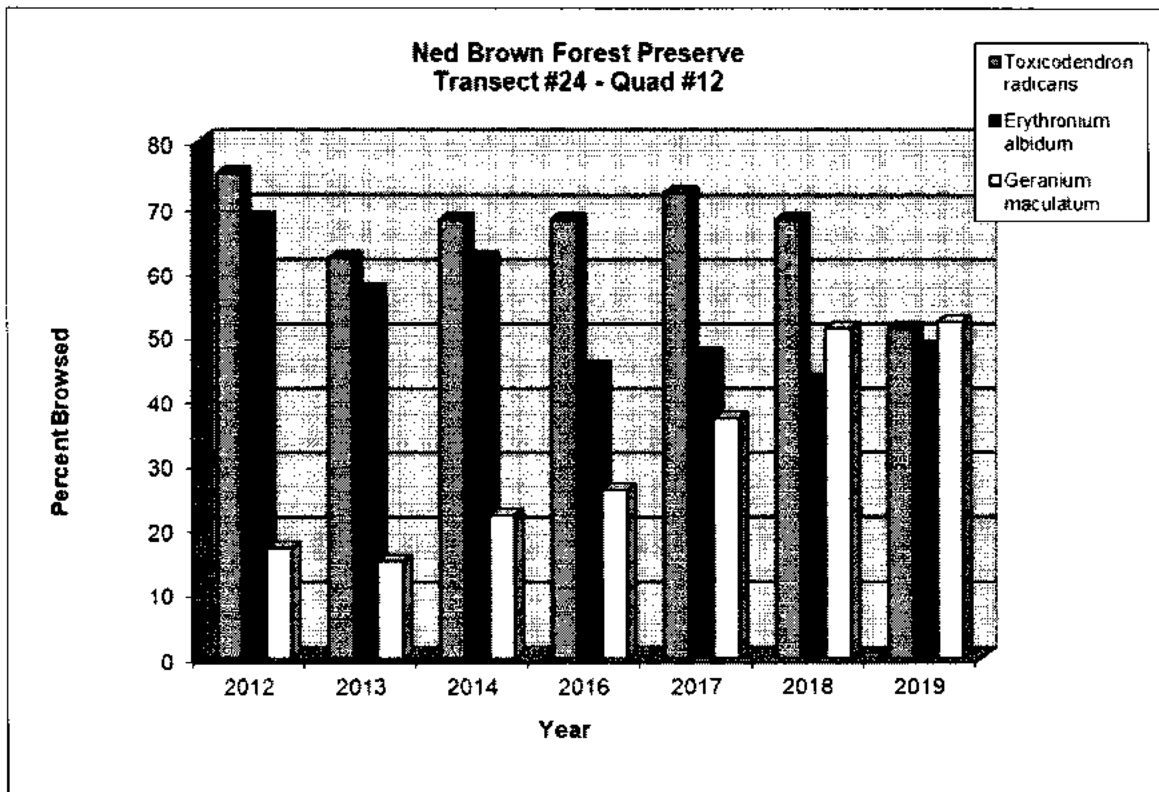


Figure #7.

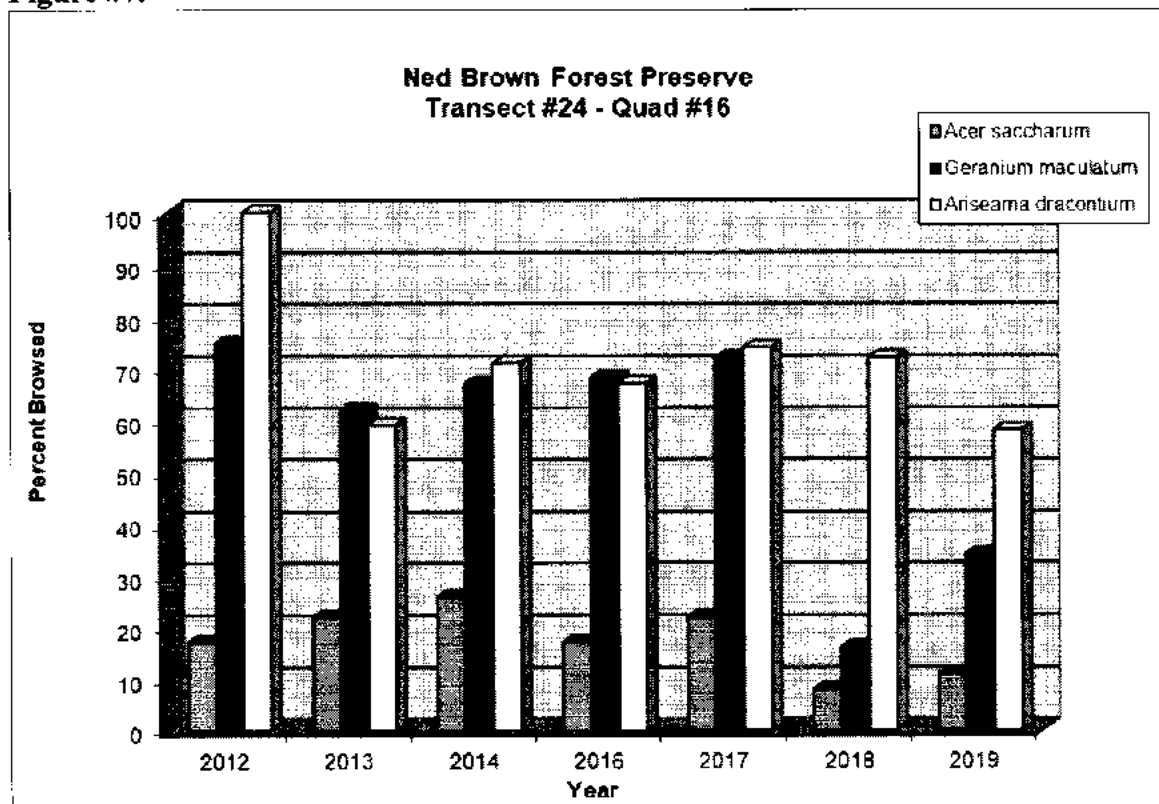


Figure #8.

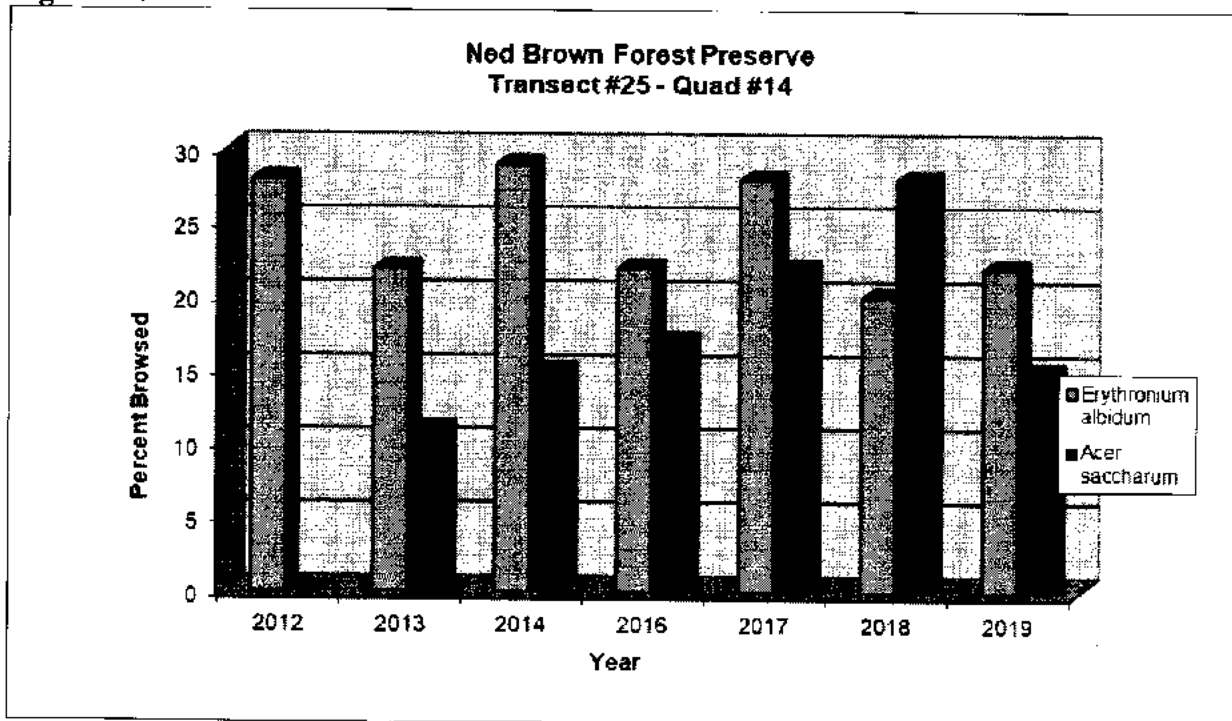
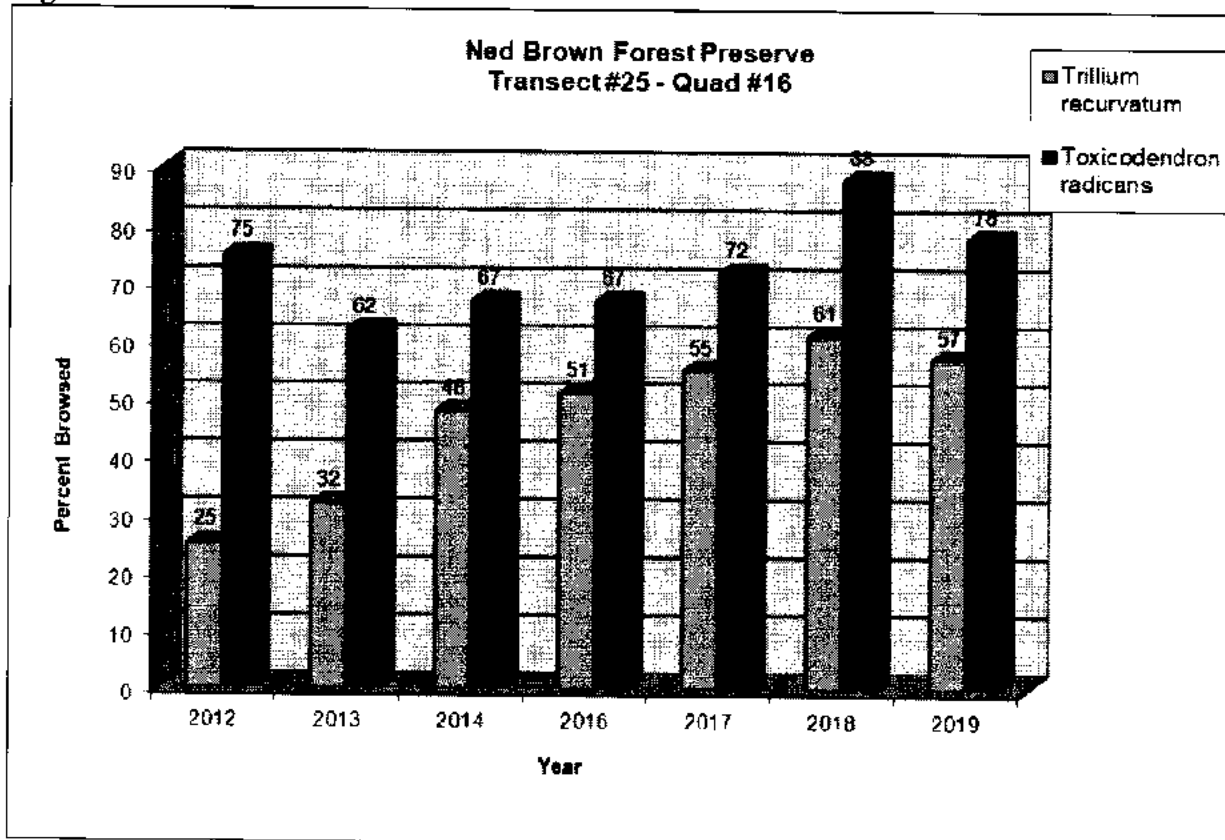


Figure #9.



**Figure
#10**

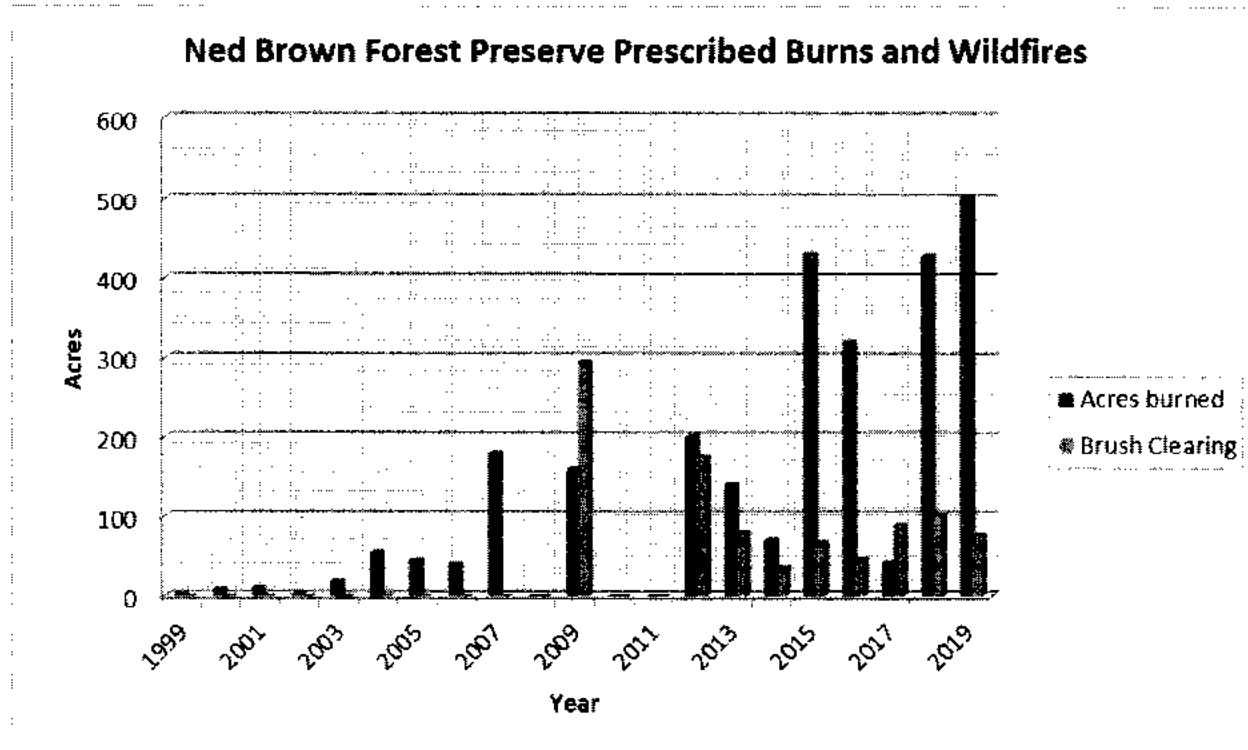
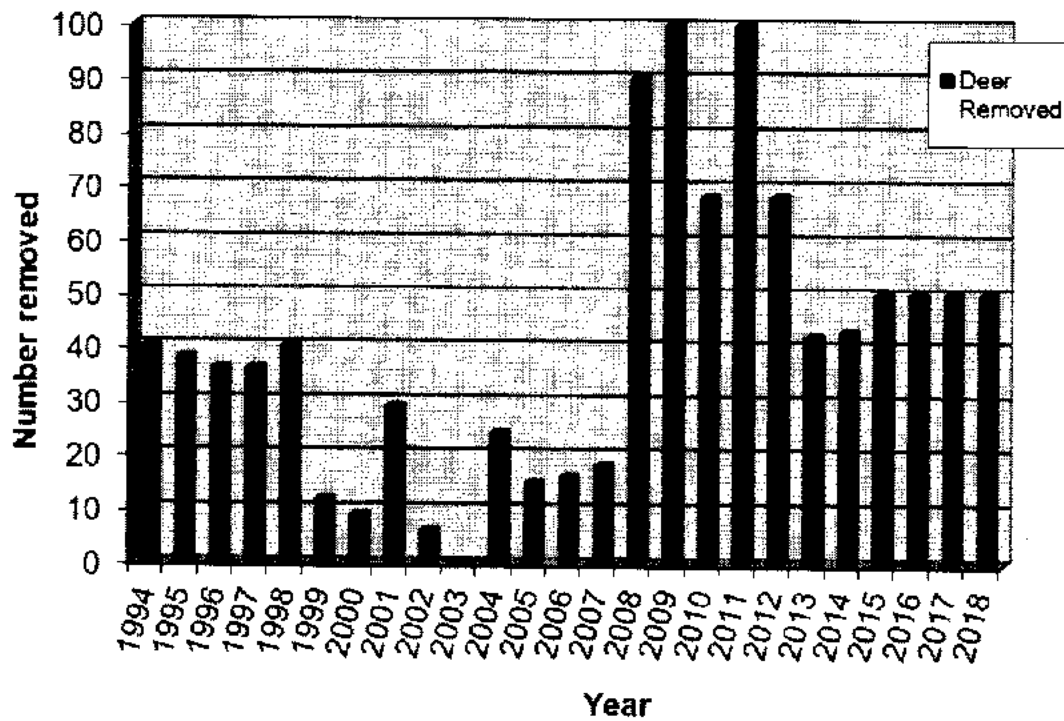


Figure #11.

Ned Brown Forest Preserve Deer Removal



Legal Description for Ned Brown Forest Preserve

Elk Grove Township sections 16-21 and 28-31. T41N, R11E.

FOREST PRESERVE DISTRICT OF COOK COUNTY

PALOS/SAG VALLEY COMPLEX DEER REMOVAL REQUEST 2019/2020

SITE DESCRIPTION

For the winter 2019-2020 deer removal season the Palos/Sag Valley Complex will consist of all lands within the Palos/Sag Valley Divisions, which is about 14,000 acres. Camp Sagawau, Little Red Schoolhouse Nature Center, and Swallow Cliff Forest Preserve have been removal sites in the past and will be used as vegetation documentation stations for the purposes of this request. Below is a brief description of the three proposed representative units, for a more detailed discussion reference past proposals for each site.

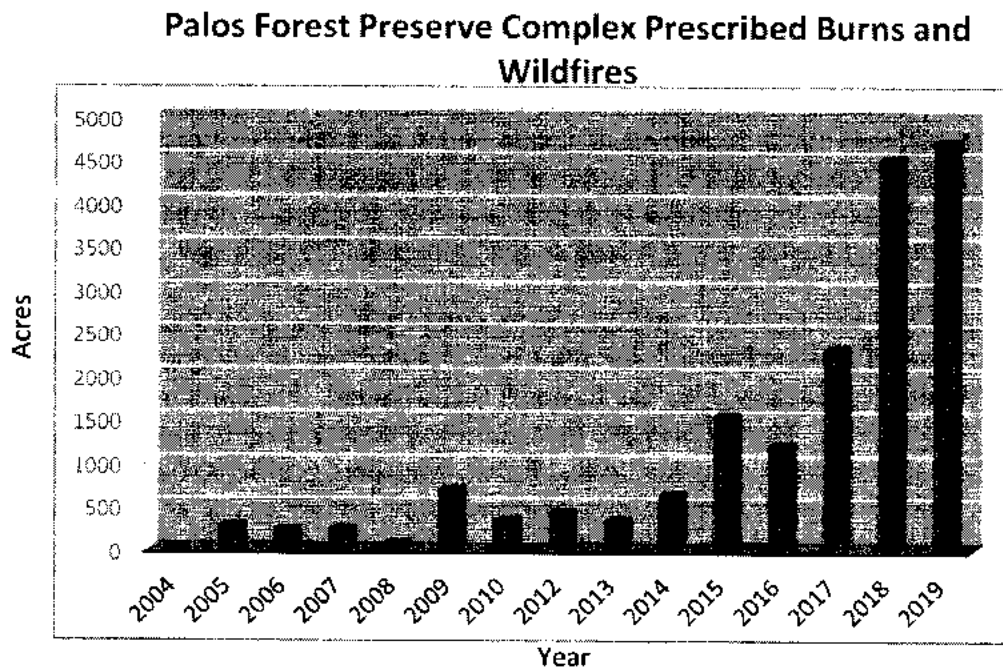
Camp Sagawau is a 4.9 ha (12 acre) site within the 22.3 ha (55 acre) Camp Sagawau Nature Preserve of the Sag Valley Division of the Forest Preserve District of Cook County (FPDCC). It is located approximately 32 km (20 mi) southwest of downtown Chicago along the Calumet Sag Channel. Formerly a camp for girls, FPDCC acquired the property in 1952. The cabins have been removed and the county uses the camp as an adult education center. The area consists largely of mesic upland forest, a restored prairie, and mowed open areas. Other habitat types include dolomite boulder talus slopes, alkaline seeps, and sedge meadows. The Nature Preserve, which was dedicated in 1984, includes a portion of the restored prairie and the dolomite canyon, which is approximately 6 m (19 ft) deep at its deepest point.

Little Red Schoolhouse Nature Center is a 204 ha (500 acre) parcel located 29 km (18 mi) southwest of downtown Chicago in the southwestern part of Cook County. It is part of the 2580 ha (6338 acre) Palos Division of the FPDCC and lies between the Calumet Sag Channel and the Illinois and Michigan Canal. Also within the Palos Division is the 43 ha (105 acre) Paw Paw Woods Nature Preserve. The topography in the vicinity of the nature center is primarily rolling upland with some floodplain. Elevation is in the range 189-221 m (620-725 ft) above sea level. Soils are of the Morley and Blount varieties ranging from poorly drained silt-loams in low areas to well-drained silt-loams on the upland slopes (Mapes 1979).

Swallow Cliff Woodland is located in the Sag Valley Division of the FPDCC. It is located in the southwestern part of Cook County about 30.5 km (19 mi) southwest of downtown Chicago. The 805 ha (1,989 acre) area is bordered on the north by Calumet Sag Channel and on the west by 104th Avenue (Willow Springs Road). The property extends as far east as 86th Avenue and as far south as 131st Street. Across 104th Avenue to the west is the 615 ha (1,520 acre) Cap Sauer's Holding, the fourth dedicated Illinois State Nature Preserve and the largest nature preserve in northeastern Illinois.

Figure 1.

Palos Forest Preserve Complex Prescribed Burns and Wildfires



GOALS

- The goal of the deer management program, as proposed by the FPDCC, is to maintain the deer herds on district properties at a level that will allow for both regeneration and continued survival of native vegetation while maintaining a healthy deer herd.

OBJECTIVES

- To maintain indicator plant density percentage at 1992 levels or higher at Camp Sagawau.
- To return to a total native stem count level of 78 or above for Little Red School House control plot.
- To maintain browse rate damage at 10% or lower for the existing indicator plant, Baptisia, for Swallow Cliff Woods.
- To maintain deer numbers at a level that will allow us to achieve or go above our objectives for Palos/Sag Valley Complex

METHODS

- Procedures used during previous years will continue.

- Marksmen will be positioned in elevated locations, using firearms with telescopic sights. All deer carcasses will be processed and donated in accordance with Illinois Department of Natural Resources regulations.
- The FPDCC will conduct aerial census counts when conditions allow. This count will give a minimum estimate of deer numbers for the site.
- Frequency of residential complaints regarding deer ranging beyond the boundaries of the preserve and deer damage to landscaping will be monitored.
- Vegetation measurements will be continued at various locations. This involves monitoring one of several vegetative datum e.g. stem densities, exclosure /control plot, and indicator species.
- Emphasis will be placed on removal locations used in the 1990's.
- The Forest Preserve District of Cook County initially proposes to remove 100 deer during the 2019/2020 winter with a start date of 02 Jan 2020.

DOCUMENTATION OF ADVERSE EFFECTS

Camp Sagawau

To document the decline of several rare plant species at Camp Sagawau Nature Preserve, staff members surveyed the density of the plants. An average number of flowering individuals per square meter was calculated (Table 1). All monitored plant species showed a substantially lower density in 1988 when compared with 1979. In 1992, following deer removal, stem densities were similar to the stem densities recorded in 1979. In 1995 and 1996, the densities of *Trillium grandiflorum*, *T. recurvatum*, *Erythronium albidum*, and *E. americanum*, declined (Table 1). In 2002 and 2003, these plants significantly increased in number (appendix A through appendix E). In 2012 *T. grandiflorum*, *T. recurvatum* are at a plant density percentage level below our 1992 level. This problem could have been exasperated by the drought. Recently all indicator plants have maintained themselves at a static level. The one exception is *Trillium sessile*. In 2014 a dramatic increase was documented in this plant. The explanation for this increase should include deer management, over-story thinning and burning. In this species, (*T. sessile*) the plant occupies a very narrow band along the edge of a canyon. The lip of this canyon has received intensive effort from all three management techniques. The other indicator species may have only received 2 of the 3 management techniques. This could explain the lack of robust response. 2015 received 100% of normal rainfall into early summer. Some plants responded with increased density and individual robustness. *T. grandifolium* had an increase in individual robustness with a decrease in density. 2016 saw an increase in thinning on site with 37 acres thinned, we would anticipate an increase in graminoid production due to increase in ground light. This site had well over 1000 acres burned and continues to be of high priority given the number of class "A" sites documented by the INHS. 2019 saw qualitative improvement of the flora due to an increase in sunlight penetration and high precipitation levels; this observation was consistent at all stations.

Table 1. Average densities (stems/m²) of reproducing individuals of selected plant species subject to deer browsing at Camp Sagawau.

Species	<i>Trillium grandiflorum</i>	<i>Trillium recurvatum</i>	<i>Trillium sessile</i>	<i>Erythronium sp.</i>	<i>Mertensia virginica</i>	<i>Caltha palustris</i>	Deer Removed
2000	6.2	6.8	4.2	22.1	5.6	8.8	3.0
2001	6.0	6.7	4.0	23.0	5.4	9.0	3.0
2002	6.2	6.5	4.2	24.0	5.6	6.0	7.0
2003	5.3	6.8	6.2	22.0	5.6	6.8	0.0
2004	5.2	6.5	6.0	22.1	6.0	7.0	1.0
2005	5	6.7	6.2	20	5	6.9	0.0
2006	5.2	6.5	6.1	21.1	5.4	7.1	6
2007	5	6.6	7.8	20.8	5.6	6.8	
2008	5.2	6.8	8.1	20.6	5.5	7.1	
2009	5	7	8.9	21.1	5.2	7.9	
2010	3.8	6.2	10.2	18	5.6	7	
2011	4	6	11.1	20	4.7	6.7	
2012	3.8	5.8	11.7	19	4.8	7	
2013	4.2	5.9	11.5	21	5	6.9	
2014	3.7	5.2	15	18.5	5.4	7.5	
2015	3.5	6.3	15.3	21.3	5.9	7.2	
2016	3.6	6.7	15.4	20	6.1	7	
2017	3.9	7.2	16.1	21	6.3	8.1	
2018	4.1	7	15.8	20	6.1	7.8	
2019	3.9	6.8	15.4	19	6	7.7	

* -species not sampled
a -from Thornton 1990

Little Red Schoolhouse Nature Center

A deer-proof exclosure fence was constructed in September 1990 enclosing an area of 100 m² (1076 ft²). An unfenced control plot of identical size lies adjacent to the exclosure. Live woody stems were counted in the exclosure and control plot in October 1992. After 2 years without browsing pressure the area inside the exclosure contained approximately 5 times the number of stems as the control plot and about twice the number of species (Table 2). Two oak seedlings were present in the exclosure while none were found on the control plot. In 1993 the number of stems had increased to 162, an increase of 30% over the previous year. One new genus, *Carya*, was present in 1993 after being absent previously. The control plot remained virtually unchanged from 1992 to 1993. Stem counts in 1994 showed an increase of 27% in the number of stems in the exclosure and the addition of one new genus, *Parthenocissus*. The control plot showed an increase of 17% over the 1993 count but no additional genera were recorded. Figure 2, gives a graphical representation of vegetative changes in and around the exclosure since its construction.

From 1993-2008 the metrics in the control plot remained relatively static. Very intensive deer removals (1921 deer removed from 2006-present) resulted in near doubling of genera in the control plot. The exclosure has remained static for over a decade indicating factors other than deer are the limiting factor. It is thought that fire and ambient light levels may be the stressors.

Table 2. Number of living woody stems < 1 m in height in a 100 m² exclosure and matching control plot at Little Red Schoolhouse Nature Center during October.

1999	Exclosure	301	14
	Control Plot	78	6
2005	Exclosure	341	14
	Control Plot	28	5 ^h
2006	Exclosure	341	14
	Control Plot	39	5
2007	Exclosure	339	14
	Control Plot	41	5
2008	Exclosure	341	15
	Control Plot	41	8
2009	Exclosure	328	15
	Control Plot	42	10
2010	Exclosure	342	15
	Control Plot	52	11
2011	Exclosure	353	15
	Control Plot	22	10
2012	Exclosure	354	15
	Control Plot	19	9
2013	Exclosure	351	15
	Control Plot	25	9
2014	Exclosure	364	15
	Control Plot	28	9
2015	Exclosure	372	15
	Control Plot	37	10 ⁱ
2016	Exclosure	283	15
	Control Plot	43	10
2017	Exclosure	302	15
	Control Plot	49	10
2018	Exclosure	306	15
	Control Plot	54	10
2019	Exclosure	301	15
	Control Plot	62	10

In 2006 the stem count of the control plot has gone up by almost a third from 2005. We attribute this to the removal of almost 500 deer in Palos/Sag Valley Complex in 2005/2006. In 2007 again the stem count continued to increase within the control plot. 2008 the stem count was static. The initial increase in stems is most likely attributed to 1,281 deer removed during 2005-2009. However, the apparent static nature over the years 2007-2009 could be due to other abiotic and biotic factors such as lack of being burned, precipitation levels or other abiotic and biotic factors unknown to us. It is also thought that for the 2012 growing season that the severe drought contributed to the heavy browse pressure.

The Little Red School House area is a prime example of what happens if the deer population remains unchecked. Deer were not removed over a six-year period between 1999 and 2006, and the vegetation in the control plot has returned to 1992 levels. We would like to return to a stem count level of 1999 or above. In 2015 the FPDCC will try to increase thinning and burning in the Palos/Sag unit to help increase vegetation counts in conjunction with ongoing deer management. In 2015 the entire Schoolhouse site burned. The result of the burn was a dramatic visual increase in vegetation and individual robustness of vegetation.

In 2019 the area around the exclosure and control plot remain static. This adds credence to the hypothesis that a lack of thinning and burning are the limiting factors at this station.

Swallow Cliff Woods

During 1996, individuals of *Baptisia leucantha* were counted on a machine-cleared restoration site. Of the 149 plants counted, only 48 (32%) produced racemes that flowered or attempted to flower. Of these 48, 28 (58%) of the racemes showed browse damage on the flowering racemes. In 2003, 90% of the individuals counted of *B. leucantha* were browsed or 46 plants out of 51 plants were affected (Table 3). Deer browse pressure may be sufficient to inhibit reproduction of this species in restoration areas (Figure 3). Reduction of the Swallow Cliff deer herd will allow reproduction of the *B. leucantha* to be successful. This reduction will help to facilitate the restoration of the area and to increase biodiversity, by allowing native species to thrive. There was a pattern of high herbivorous activity seen 2005 (82%), along with a decrease in the number of *B. leucantha* racemes. However, in 2006 there was a reduction of browse by almost half in some areas; this could be due to the collection of almost 500 deer in the Palos/Sag Valley Complex.

In 2012 extensive clearing/thinning of North facing slopes resulted in an increase of light penetration to the forest floor. This increase in ambient light levels from less than five percent to fifteen percent did allow graminoid growth and improve the plant diversity.

We would like to request a permit to continue management of the herd at the Palos/Sag Valley Complex. We also believe that between removal of the exotics by burning and mowing/cutting along with deer management that this will promote a healthy ecosystem.

In 2014 the clearing/thinning and burning have dramatically increased the graminoid levels from approximately 5% ground cover to over 30% ground cover. Most of the increase in ground cover is in the form of *Carex* and *Juncus*. The conservative Spiknard (*Aralia racemosa*) has responded to the above management by increasing from three plants in 2011 to nine in 2014. In 2015 a 300 meter stretch of north facing slope was thinned of Maple and Cottonwood. The immediate result was a flush of thousands of Dutchman's Breeches, (*Dicentra cucullaria*) and the extremely rare Squirrel Corn, (*Dicentra Canadensis*). The plan for 2016 is to continue thinning to 11%+ ambient light and promote burning. Spiknard increased to 14 plants in 2015. 2016 saw a repeat of Dutchman's Breeches and for the first patches of Squirrel Corn. The thinning is planned on continuing in the winter down the north face slope.

2019 continued the trend of increased graminoid cover due to clearing, thinning and burning.

Table 3. Percent Browsed *Baptisia leucantha* for Swallow Cliff.

Year	Palos	Orland	Lyons
1996	48	28	58
1997	10	6	60
1998	135	113	84
1999	28	8	29
2000	48	33	69
2001	na	na	na
2002	na	na	na
2003	51	46	90
2004	48	42	87
2005	17	14	82
2006	28	11	39
2007	22	8	36
2008	56	6	11
2009	38	6	16
2010	56	11	20
2011	51	14	27
2012	50	17	34
2013	55	21	38
2014	55	21	38
2015	50	15	30
2016	50	12	24
2017	50	10	20
2018	50	12	24
2019	50	10	20

Legal Description for the Palos/Sag Valley Complex

Lemont Township section 12, 13, 19, 24, 25, and 36. T37N, R11E.

Palos Township section 3-10, 15-23, and 27-34. T37N, R12E.

Orland Township section 4 and 5. T36N, R12E.

Lyons Township section 20, 21 and 33, 34. T38N, R12E.

FOREST PRESERVE DISTRICT OF COOK COUNTY

RIVER TRAIL NATURE CENTER DEER REMOVAL REQUEST 2019/2020

SITE DESCRIPTION

The River Trail Nature Center (RTNC) site was chosen as the location for a nature center due to aesthetic and historical reasons; RTNC was a portage site used by fur traders during the late 1700's (Smith, 1940). Aesthetically the site was chosen due to the abundance of spring ephemerals. Prior to 1960, the great variety of wildflowers was documented by Mr. Floyd Swink, a botanist for the Morton Arboretum in Lisle, Illinois. In autumn 1983, the Illinois Natural History Survey (INHS) initiated research on white-tailed deer in the Chicago metropolitan area with RTNC being one of 3 sites where deer exclosures were constructed. This exclosure has continued to be maintained by FPDCC.

RTNC has an elevation of 625 to 650 feet. The area slopes toward the west and has a number of intermittent streams that run east-west. The river bottom is characterized by the poorly drained Sawmill soil series. The bottom land rises 5 to 15 feet in elevation to a sand ridge characterized by the well-drained Oakville soil series. The area is wooded except for 2 picnic sites, the backwater and part of the nature center compound. River Trail Nature Center consist of 1168.3 ha (2887 acres).

Tree species include red (*Quercus rubra*), bur (*Q. macrocarpa*), white (*Q. alba*), swamp white (*Q. bicolor*), Hill's (*Q. ellipsoidalis*), and black (*Q. velutina*) oaks. Also recorded were bitternut (*Carya cordiformis*) and shagbark (*C. ovata*) hickories, black walnut (*Juglans nigra*), and the uncommon white walnut or butternut (*J. cinerea*). The flood plain canopy is dominated by sugar maple (*Acer saccharum*). Some of these trees represent taxa that are "locally threatened, endangered, or already fatally compromised" (Swink and Wilhelm, 1979). The backwater areas near the river contain open water, buttonbush (*Cephalanthus occidentalis*), and the cattails (*Typha angustifolia* and *T. latifolia*).

The Des Plaines River Green Belt (DPRGB) supports red-shouldered hawks (*Buteo lineatus*) and Cooper's hawks (*Accipiter cooperii*) both of which were once included on the Illinois Endangered Species List. Both of these species of hawks nested in the DPRGB in 1988, 1989, 1993, 1994, and 1997 with only the Cooper's known to have nested in 1995 along with broad-winged hawks (*Buteo platypterus*). The mature second growth forest provides nesting habitat for wood ducks (*Aix sponsa*) and the uncommon hooded merganser (*Lophodytes cucullatus*). Herpetofauna include the northern brown snake (*Storeria dekayi*) and, in the northern portion of the DPRGB, the state endangered listed massasauga rattlesnake (*Sistrurus catenatus*). (Refer to past proposals)

GOALS:

The goal of the deer management program, as proposed by the FPDCC, is to maintain the deer herds on District properties at a level which will allow for both regeneration and continued survival of native vegetation while still maintaining a healthy deer herd.

OBJECTIVE:

- To restore plant cover values at 1998 levels or higher.
- To restore deer herd density at a level that will allow 1998 plant cover values to be restored as well.

METHODS:

- Procedures used during previous years will continue.
- Marksmen will be positioned in elevated locations, using firearms with telescopic sights. All deer carcasses will be processed and donated in accordance with Illinois Department of Natural Resources regulations.
- The FPDCC will conduct aerial census counts when conditions allow. This count will give a minimum estimate of deer numbers for the site.
- Vegetation measurements will be continued on site. This currently involves monitoring within INHS established plots and transects according to INHS established monitoring protocol.
- The Forest Preserve District of Cook County proposes to remove 50 deer during the 2010/2020 winter season. Start date being 02 Jan 2020.

DOCUMENTATION OF ADVERSE EFFECTS

A.) Qualitative: There is a very evident browse line along with encroachment of exotics such as buckthorn (*Rhamnus cathartica*) and garlic mustard (*Alliaria officinalis*) indicating a reduction in native understory plants. The spectacular spring wildflower display has been lost. Complaints by the public regarding deer feeding on home plantings, defecation on lawns, concerns over Lyme disease, and poaching continue.

B.) Quantitative: INHS researchers documented notable differences in the percent cover and stem density of plants < 1 meter between the deer exclosure and the adjacent control plot which were established in autumn 1983 see Tables 1-4 and Graphs 1-4. Stem density and percent cover of the understory plants have been higher in the unbrowsed

exclosure and have increased for herbaceous species from 1986-1998. The rather high density of herbs in the exclosure during 1986/98 is due to the fact that a randomly selected sample plot fell in a dense patch of false rue anemone (*Isopyrum biternatum*) and woodland knotweed (*Tovara virginiana*). Due to the mature, closed forest canopy at RTNC, regeneration of plants in the exclosure has been slow. The increased distribution of white trout lily (*Erythronium albidum*) and more robust reproducing plant species in the exclosure gives evidence that recovery of the vegetation is possible if browsing pressure is reduced. It should be noted that the only reproducing specimens of plant species affected by deer, generally considered to be indicator species, occur within the exclosure.

DOCUMENTAION OF BIODIVERSITY RECOVERY

Some plant species that were absent during the 1980's began to return during deer management in the 1990's. The most notable is the return of the Cardinal Flower (*Lobelia cardinalis*). This showy, wetland plant had not been observed since 1984. Improvement was also noted for lion's foot (*Prenanthes alba*), white trillium (*Trillium grandiflorum*), jewel weed (*Impatiens capensis*), hog peanut (*Amphicarpa bracteata*), closed gentian (*Gentiana andrewsii*).

As the understory slowly recovers at RTNC it is hoped that the ground and understory nesting birds that nested there in the 1970's will return. We would like to request a permit to conduct management of the herd at RTNC. We also believe that between removal of the exotics by burning and mowing/cutting along with deer management that this will promote a healthy ecosystem. The lack of recovery in 2012 is thought to be due to a severe drought. The deer are thought to have identified and concentrated herbivory of preferred plant species. In 2013 near normal temperature and abundant precipitation contributed to an increase in vegetation metrics. 2013 *Liatris spicata* was added to our list of plants to monitor to increase the robustness of our monitoring program. (See table #5 and graph #5.) In 2014, we continued to see modest improvement in the exclosure and control plot, with a much more substantial improvement within the *Liatris*. We hope the deer management efforts will continue with this positive trend.

2015 had excellent precipitation levels, this factor along with ongoing deer management encouraged an increase in vegetation. The increase was in the form of increased patch size and fecundity of individual plants. A small < 1m patch of *Carex pennsylvatica* increased in size to > 1m patch. Several Green Dragon (*Arisaema dracontium*) were detected that were over 1dm. Typical height is 6-7 cm.

In 2016, 51 acres were burned, 26 cleared and an additional 230 acres are to be cleared by the Toll road contract this winter. We have noted an increase in patch size of remaining carex patches as land management continues.

In 2019, 287 acres were burned and 118 were cleared. Large precipitation totals and an increase in graminoid growth caused an increase in amphibian recruitment.

Table 1.

Densities (stems/m ²) of plants <1m in height in River Trail Nature Center enclosure (RtEx) and control plot (RtCp) as measured during May. N=48 quadrats (1m ²) for each area each year.				
Year	Exclosure	Control Plot	Exclosure	Control Plot
1986 ^a	16.3	20.1	7.6	3.3
1998 ^b	12.1	2.7	3.1	0.8
2011 ^b	14	1.3	4.1	0.2
2012 ^b	12	1	3.5	0.2
2013 ^b	14.2	1.5	3.8	0.4
2014 ^b	14.5	1.9	4	0.6
2015 ^b	14.7	2.9	4	1.8
2016 ^b	15.1	3.1	4	2
2017	14	4	4	2
2018	15.8	3.9	4	2
2019	14.1	3.3	3.7	1.9

a Witham and Jones, 1988, unpublished data

b FPDCC

Table 2.

Year	Exclosure	Control Plot	Exclosure	Control Plot
1986 ^a	7	8	10	10
1998 ^b	5	8	8	5
2011 ^b	8	6	7	6
2012 ^b	8	5	7	4
2013 ^b	8	5	7	4
2014 ^b	8	5	9	7
2015 ^b	8	5	9	7
2016 ^b	8	5	9	7
2017	8	5	10	8
2018	8	5	10	8
2019	8	5	10	8

a Witham and Jones, 1988, unpublished data,

b FPDCC

Table 3.

Year	Exclosure	Control Plot	Exclosure	Control Plot
1986 ^a	1.4	3.5	5.2	0.6
1998 ^b	3.4	0.7	11.8	1.4
2011 ^b	2.7	0.1	10	0.6
2012 ^b	2.5	0.1	8	0.2
2013 ^b	2.8	0.3	8.2	0.5
2014 ^b	3	0.5	9	0.7
2015 ^b	3	1.2	9	1.1
2016 ^b	3.2	1.2	9	1.3
2017	3.7	1.4	9.3	1.9
2018	3.5	1.3	9	1.5
2019	3.1	1.1	8.7	1.4

a Witham and Jones, 1988, unpublished data

b FPDCC

Table 4.

Numbers indicate minimum number of species < 1m in height in Every Tree, Native Center enclosure (BNC) and control plot (BCC) as measured during May - Nov 12 line intercepts (20m) for each area each year.

Year	Exclosure	Control Plot	Year	Exclosure	Control Plot
1986 ^a	6	7		9	8
1998 ^b	6	6		11	6
2011 ^b	5	3		6	3
2012 ^b	4	2		6	3
2013 ^b	5	2		7	4
2014 ^b	5	2		7	4
2015 ^b	5	3		7	4
2016 ^b	5	4		7	4
2017	6	5		7	5
2018	6	5		7	5
2019	6	4		7	4

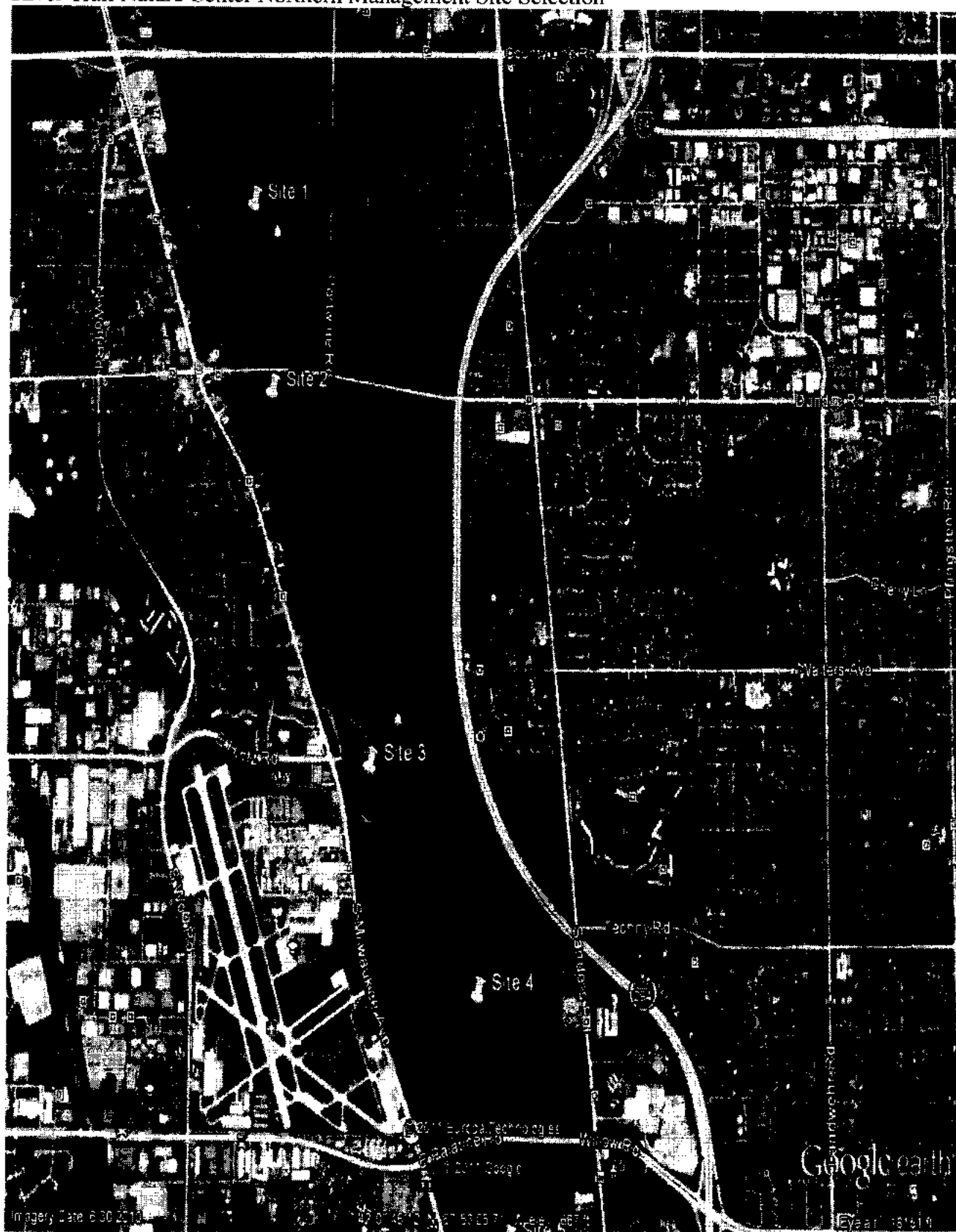
a Witham and Jones, 1988, unpublished data

b FPDCC

Table 5.

Year	N	B	%
2013	42	36	86
2014	42	30	72
2015	42	27	64
2016	42	24	57
2017	42	20	48
2018	42	19	45
2019	42	20	48

River Trail Nature Center Northern Management Site Selection



River Trail Nature Center Northern Management Site Selection



River Trail Nature Center Southern Management Site Selection

Legal Description for River Trail Nature Center

Wheeling Township sections 1,12,13, T42W, R12E.
Northfield 18, 19, 30, 31, T42W, R12E.

FOREST PRESERVE DISTRICT OF COOK COUNTY

SAUK LAKE DEER REMOVAL REQUEST 2019/20

SITE DESCRIPTION

The Sauk Lake Forest Preserve is a 528.52 ha tract within the Thorn Creek Division of the Forest Preserve District of Cook County (FPDCC). It is located approximately 50 km (31 mi) south of downtown Chicago in southern Cook County (see Figure 1) near the towns of Park Forest, Chicago Heights, South Chicago Heights, and Steger. Sauk Lake Forest Preserve is noted for old growth white oak (*Quercus alba*), bur oak (*Quercus macrocarpa*) and Ohio buckeye (*Aesculus glabra*) growing on thin claysoils.

GOALS

The goal of the deer management program, as proposed by the FPDCC, is to maintain the deer herds on FPDCC properties at a level which will allow for both regeneration and continued survival of native vegetation while still maintaining a healthy deer herd.

OBJECTIVES

- To maintain indicator plant browse pressure at 25 percent or lower.
- To maintain deer herd density at a level that will allow a 25 percent or lower plant browse rate to be maintained.

METHODS:

- Marksmen will be positioned in elevated locations, using firearms with telescopic sights. All deer carcasses will be processed and donated in accordance with Illinois Department of Natural Resources regulations.
- The FPDCC will conduct aerial census counts when conditions allow. This count will give a minimum estimate of deer numbers for the site.
- Vegetation measurements will be conducted on site. This currently involves monitoring browse-sensitive native indicator species.
- The Forest Preserve District of Cook County initially proposes to remove 25 deer during the 2019/20 winters with a start date of 02 Jan 2020.

DOCUMENTATION OF ADVERSE EFFECTS

A. Qualitative: As recently as the mid-1980's deer were uncommon in the Sauk Lake Forest Preserve, but in the 1990's they became much more common. Deer can now be seen daily, often at midday, and sometimes in groups of 10-20 animals. Deer beds and trails have trampled many woodland plants, and a browse line has developed. There is greater evidence of deer damage to a variety of plant species. Wild flowers, in general, seem less abundant in areas with many deer. Examples such as the twoflower dwarf dandelion (*Krigia biflora*) and the prairie trillium (*Trillium recurvatum*) show extreme damage. Many complaints have also been received by the surrounding towns and villages with Park Forest receiving the bulk of the complaints. After only one year of collecting the complaints about deer seem to be less. In 2015 much of the area east of Sauk Lake was burned; this coupled with high precipitation levels seems to have caused an increase in graminoid vegetation.

B. Quantitative: To document the decline of certain plants at Sauk Lake, FPDCC staff counted the stems of individual browsed and flowering plants (see Table 1 and Graph 1). Both of the monitored species showed browse pressure rates in excess of 60% during 2010. The survey for the *Krigia biflora* (*K. biflora*) was done using a 20m circle and counting the *K. biflora* buds and the number of buds browsed. For the *Trillium recurvatum* (*T. recurvatum*) a 20m transect line was used, counting the *T. recurvatum* buds and the number of buds browsed within one meter of the transect line. During the plant monitoring season of 2012 there is still a high browse rate as seen in Table 1 and Graph 1. In 2013 the FPDCC added *Erythronium* to the monitoring metric to increase robustness to the documentation.

In 2015, we have documented a decrease in browse pressure. We believe this can be attributed to a combination of burning, brush clearing, an excellent growing season and deer control.

In 2016, we burned 96 acres and cleared 12. The FPDCC is in negotiations with the U.S. Army Corp to remove the Sauk Lake Dam and return the area to native marsh/wetland. This would add about 87 acres of restored habitat to the site.

In 2017 we burned over 100 acres and thinned 6. Two citations were issued to private landowners for feeding deer.

In 2019 we burned over 112 acres and thinned 89 acres.

It is important to understand the role of fire and its necessity in impoverished environments. Fire and brush clearing/removal is an essential ecological tool that aids to restore biological diversity. Anthropogenic land changes in the Chicago region have permanently altered the integrity and functioning of these once healthy ecosystems. The restorative role of fire is one of those essential ingredients. Deer management coupled to landscape management are the basic building blocks that re-enforces that healing process and eventually leads to biological diversity on many scales. It is hoped the reduction in herd could also minimize the complaints of both the villages and the homeowners.

We would like to request a permit for management of the herd. We believe that between removal of the exotics by burning and mowing/cutting along with deer management that this will promote

a healthy ecosystem.

Figure 1. Sauk Lake Forest Preserves Location in Cook County

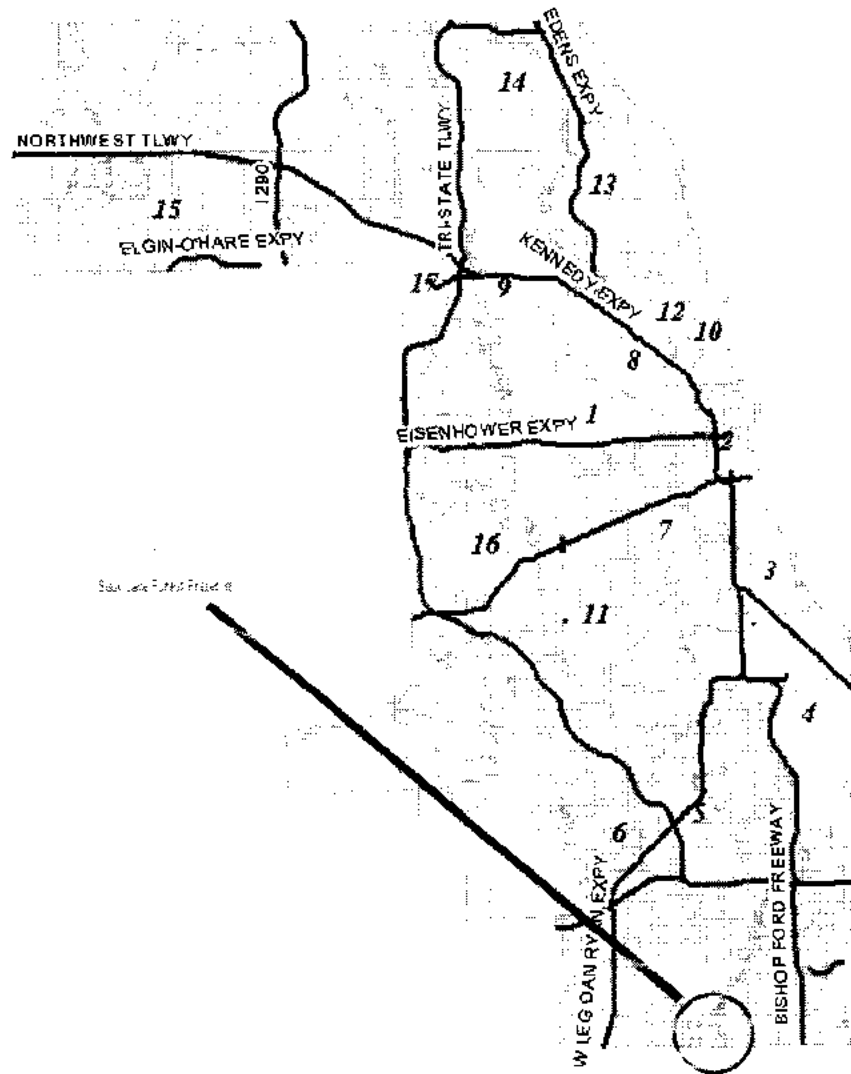


Table 1. Forest Preserve District of Cook County Sauk Lake
Krigia biflora, *Trillium recurvatum*, and *Erythronium* percentage of deer browse.

Year	# of buds	# browsed	% Browsed <i>Krigia biflora</i> buds
2009	18	17	94
2010	18	12	67
2011	18	9	50
2012	18	14	78
2013	18	12	67
2014	18	9	50
2015	18	7	39
2016	18	10	55
2017	18	9	50
2018	18	10	55
2019	18	8	44
Year	# of buds	# browsed	% Browsed <i>Trillium recurvatum</i> buds
2009	20	17	85
2010	20	12	60
2011	20	11	55
2012	20	16	80
2013	20	15	75
2014	20	13	65
2015	20	9	45
2016	20	8	40
2017	20	9	45
2018	20	8	40
2019	20	6	30
Year	# of buds	# browsed	% Browsed <i>Erythronium</i>
2013	30	17	57
2014	30	12	40
2015	30	9	30
2016	30	9	30
2017	30	10	33
2018	13	12	40
2019	27	11	41

Legal Description for the Sauk Lake

Rich Township section 36. T35N, R13E.

Bloom Township section 20, 29, 30, 31, and 32. T35N, R14E.

FOREST PRESERVE DISTRICT OF COOK COUNTY

TINLEY CREEK DIVISION COMPLEX DEER REMOVAL REQUEST 2019/2020

SITE DESCRIPTION

The Tinley Creek Division Complex (TCDC) is 4280 acres within the Tinley Creek Division of the Forest Preserve District of Cook County (FPDCC). It is located approximately 40 km (25 miles) southwest of downtown Chicago in southern Cook County (see Figure 1, 2, and 3) near the towns of Oak Forest, Tinley Park, Midlothian, Crestwood, and Orland Park. Tinley Creek Forest Preserve is noted for deep ravines and gullies along Tinley Creek. It is also noted for old growth white oak (*Quercus alba*), bur oak (*Quercus macrocarpa*) and red oak (*Quercus rubra*).

GOALS

The goal of the deer management program, as proposed by the FPDCC, is to maintain the deer herds on FPDCC properties at a level which will allow for both regeneration and continued survival of native vegetation while still maintaining a healthy deer herd.

OBJECTIVES

- To maintain indicator plant browse pressure at 25 percent or lower.
- To maintain deer herd density at a level that will allow a 25 percent or lower plant browse rate to be maintained.

METHODS:

- Marksmen will be positioned in elevated locations, using firearms with telescopic sights. All deer carcasses will be processed and donated in accordance with Illinois Department of Natural Resources regulations.
- The FPDCC will conduct aerial census counts when conditions allow. This count will give a minimum estimate of deer numbers for the site.
- Vegetation measurements will be conducted on site. This currently involves monitoring browse-sensitive native indicator species.
- The Forest Preserve District of Cook County initially proposes to remove 50 deer during the 2019/2020 winter with a start date of 02 Dec 2019.

DOCUMENTATION OF ADVERSE EFFECTS

A. Qualitative: As recently as the mid-1980's deer were uncommon in the Tinley Creek Division Complex, but in the 1990's they became much more common. Deer can now be seen daily, often at midday, and sometimes in groups of 10 to 20 plus animals. Deer beds and trails have trampled many woodland plants, and a browse line has developed. During the 2011 growing season there was less deer damage to the wild flowers species. Wild flowers, in general, seem more abundant. Examples such as the common water horehound (*Lycopus americanus*) and the marsh blazingstar (*Liatris spicata*) show less damage. Many complaints have also been received by the surrounding towns and villages with Midlothian receiving the bulk of the complaints prior to 2009. After only one year of collecting the complaints about deer seem to be less. Since 2011 no deer complaints have been received. In 2012 a severe drought occurred. Indicator species were preferentially consumed due to drought. 2013 had excellent growing conditions, normal temperatures and normal plus rainfall. 2015 saw an increase in number and range of indicator species. This increase is thought to be due to deer removal and above average rainfall in the spring. *Lycopus* saw an increase in individual robustness and an increase in numbers. The size and number of controlled burns are planned to increase dramatically due to the addition of an additional FPDCC burn crew in the 2015/2016 season.

2016 saw double the burn and clear rate of the previous year.

2017 saw the continued increase in burn and clear rates.

2019 saw a dramatic increase in clearing due to a million dollar grant.

B. Quantitative: To document the decline of certain plants at the Tinley Creek Complex, FPDCC staff counted the stems of individual browsed and flowering plants (see Table 1 and Graph 1). Both of the monitored species showed browse pressure rates in excess of 71% during 2010. The 2011 survey season shows that the browse pressure is significantly less at the biological monitoring station which indicates that deer reduction program is working. In 2012 both indicator species received significant browse pressure that exceeded our goal of 25% or less. The survey for both *Lycopus americanus* (*L. americanus*) and *Liatris spicata* (*L. spicata*) was done using a 20m circle due to the growth habits/patterns of the plants and then counting the number of inflorescence and the inflorescence browsed.

It is important to understand the role of fire and its necessity in impoverished environments. Fire and brush clearing/removal is an essential ecological tool that aids to restore biological diversity. Graph 2 gives a graphical picture of the areas that have been burned or cleared/ to help control the exotics such as buckthorn (*Rhamnus cathartica*). Anthropogenic land changes in the Chicago region have permanently altered the integrity and functioning of these once healthy ecosystems. The restorative role of fire is one of those essential ingredients. Deer management coupled to landscape management are the basic building blocks that re-enforces that healing process and eventually leads to biological diversity on many scales. It is hoped the reduction in herd could continue to minimize the complaints of both the villages and the home owners.

We would like to request a permit to continue management of the herd. We believe that between removal of the exotics by burning and mowing/cutting along with deer management that this will promote a healthy ecosystem.

Figure 1. Tinley Creek Division Complex Location in Cook County

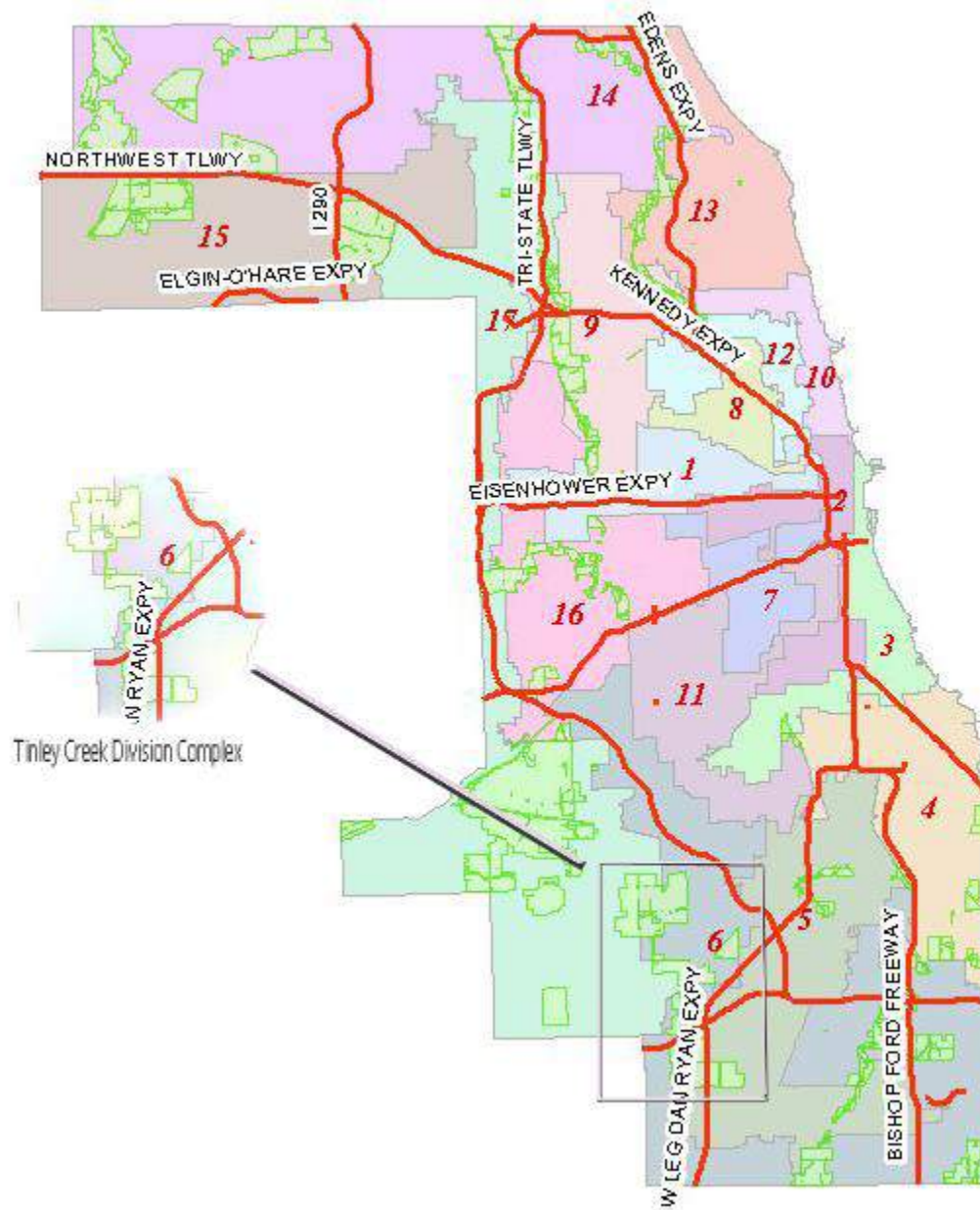


Figure 2. Tinley Creek Division Complex Location in Cook County
Tinley Creek Woods

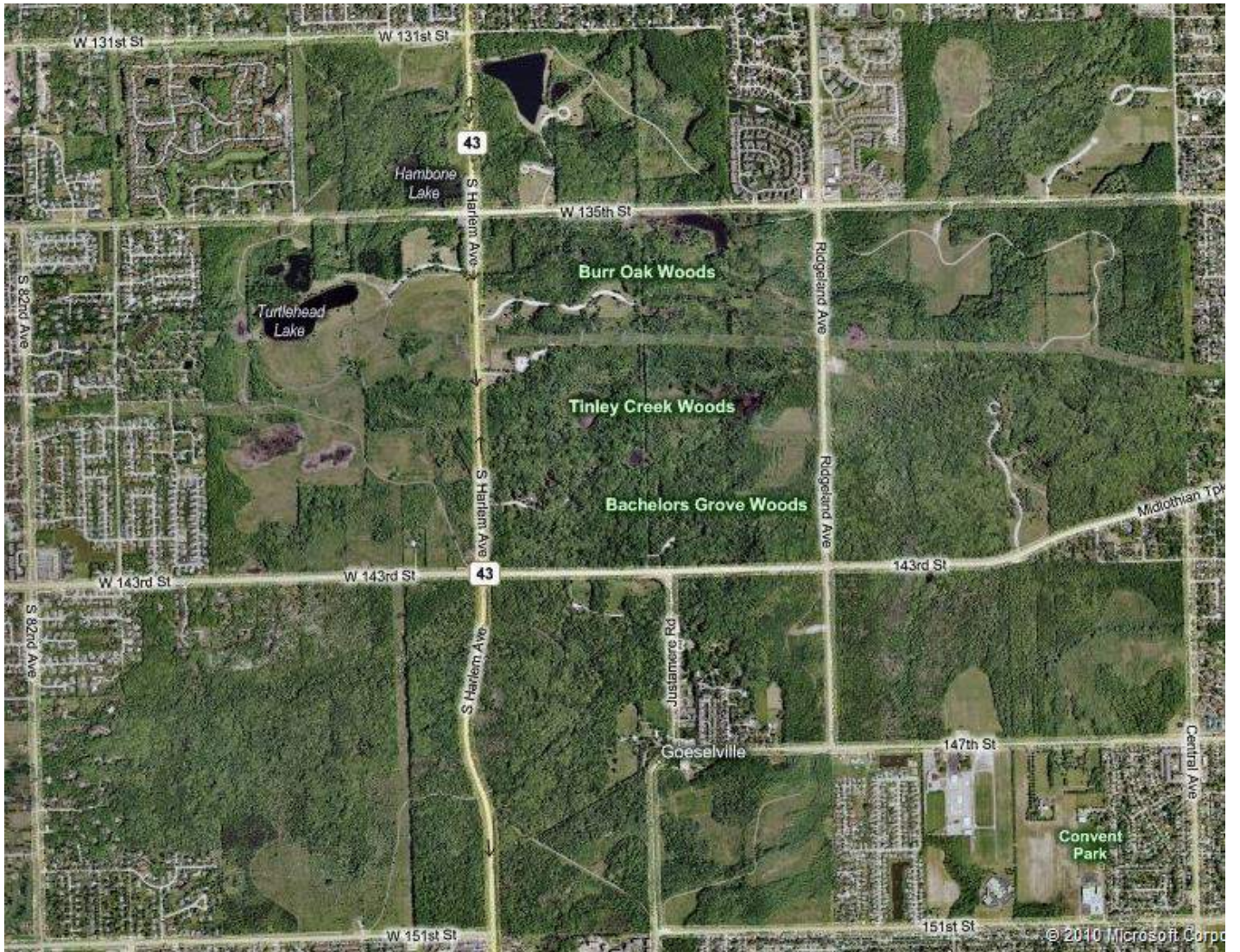


Figure3. Tinley Creek Division Complex Location in Cook County
Midlothian Meadows and Midlothian Reservoir

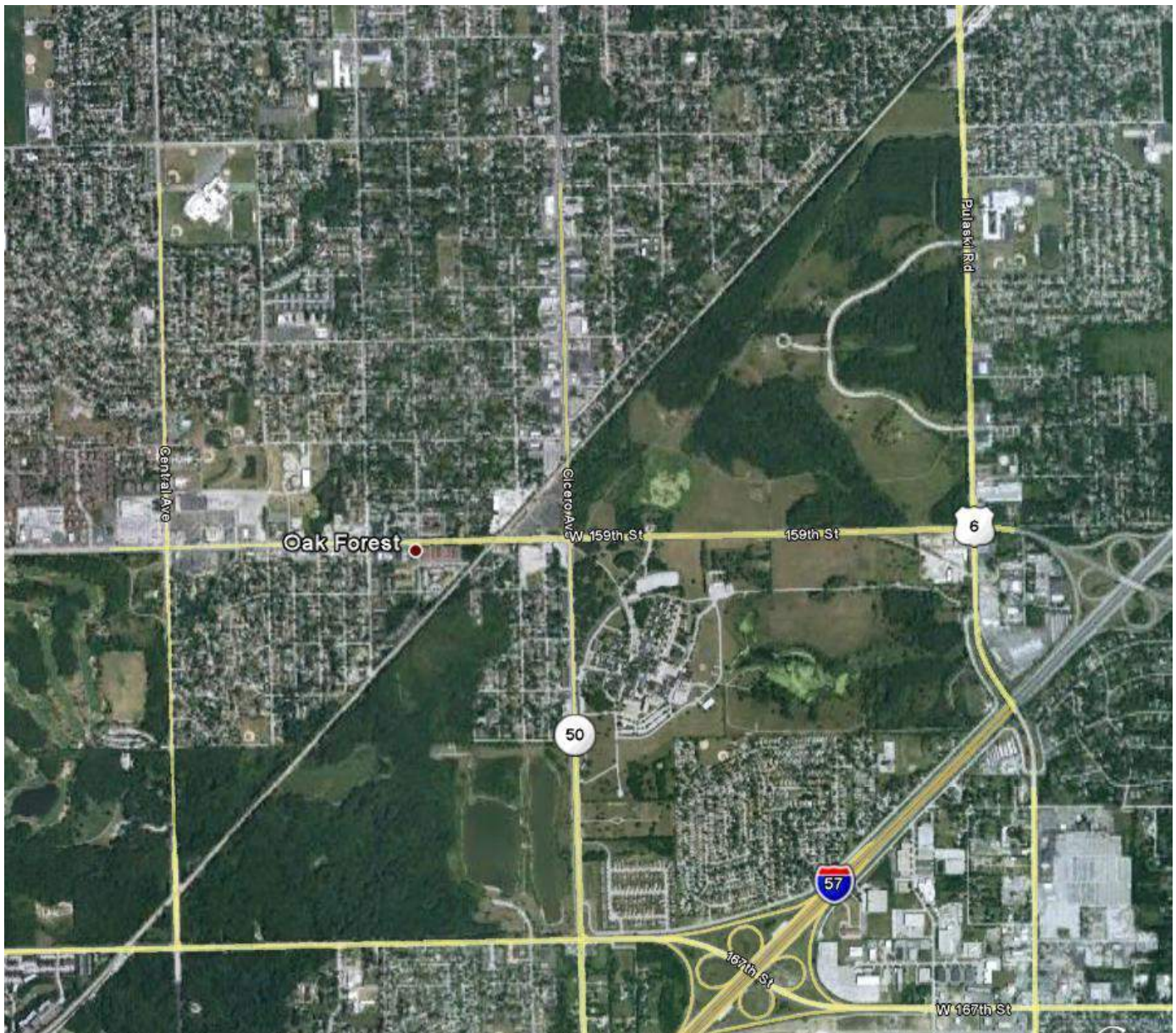
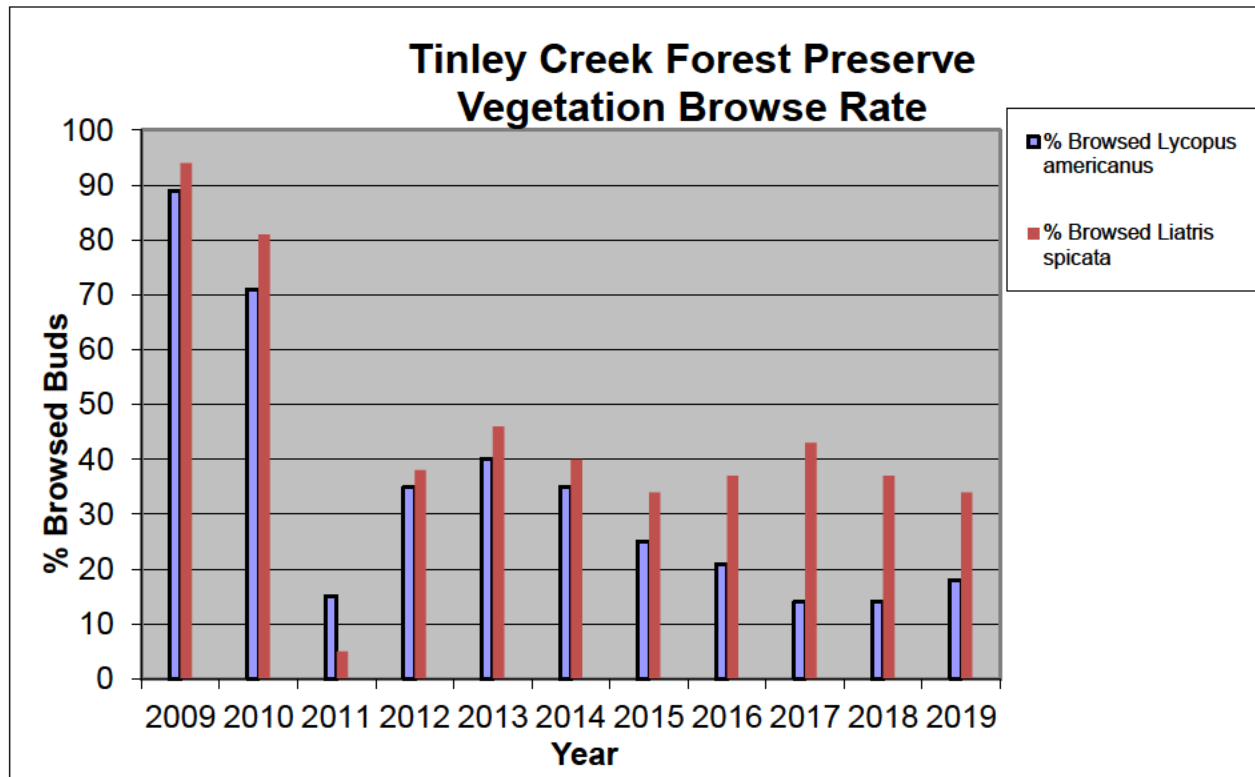


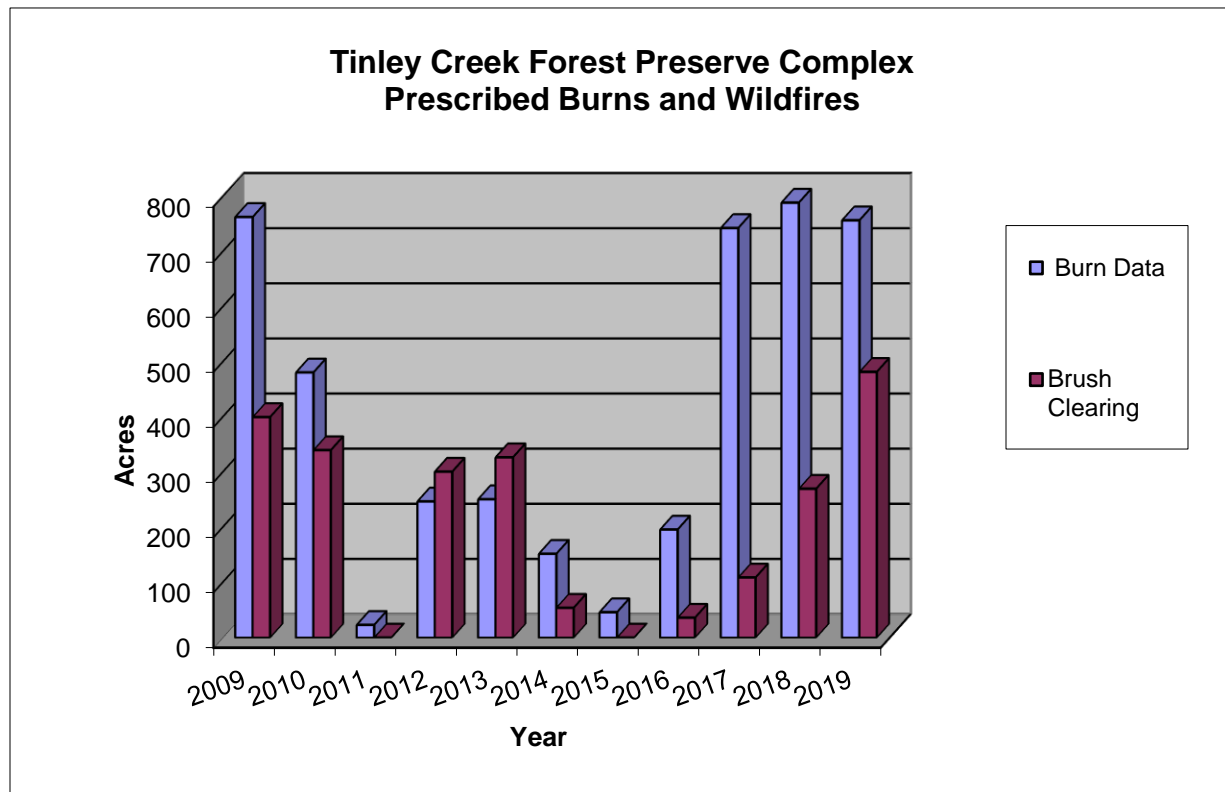
Table1. Forest Preserve District of Cook County Tinley Creek Division Complex
Lycopus americanus and *Liatris spicata* percentage of deer browse.

Year	# of buds	# browsed	% Browsed <i>Lycopus americanus</i>
2009	28	25	89
2010	28	20	71
2011	20	3	15
2012	26	9	35
2013	28	11	40
2014	28	9	35
2014	28	8	25
2015	28	8	25
2016	28	6	21
2017	28	4	14
2018	28	4	14
2019	28	5	18
Year	# of buds	# browsed	% Browsed <i>Liatris spicata</i>
2009	31	29	94
2010	31	25	81
2010	31	25	81
2011	20	1	5
2012	24	9	38
2013	35	16	46
2014	35	14	40
2015	35	12	34
2016	35	13	37
2017	35	15	43
2018	35	13	37
2019	35	12	34

Graph 1. Forest Preserve District of Cook County
Tinley Creek Division Complex deer browse data.



Graph 2. Forest Preserve District of Cook County
Tinley Creek Division Complex Burn Data



Legal Description for the Tinley Creek Division Complex

Orland Township section 1 and 12. T36N, R12E.

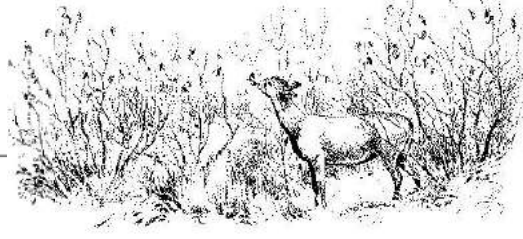
Bremen Township section 5, 6, 7, 8, 15, 18, 19, 20, 21, and 22. T36N, R13E.

Worth Township section 31 and 32. T37N, R13E.



Illinois Department of Natural Resources

Urban Deer Project
28W040 State Route 58, Elgin, Illinois 60120
(847) 798-7620


For IDNR use only:

Date Received: 11/5/2019
Date Reviewed: 11/18/2019
Date Approved: 11/18/2019
Date Rejected: n/a

Deer Population Control Permit Application Cover Page

This form is to be completed and included as a cover page with the organization's application for a Deer Population Control Permit.

ORGANIZATION INFORMATION

Organization Name:	Forest Preserve District of Cook County	Phone:	(708) 771-1180	County:	Cook
Street Address:	536 N. Harlem Ave.	City:	River Forest	State:	Illinois
		Zip Code:	60305		

PRIMARY CONTACT INFORMATION

Contact Name:	Chris Anchor	Phone:	(847) 798 - 0354	Email:	chris.anchor@cookcountyiil.gov
Street Address:	3100 west Golf	City:	Elgin	State:	Illinois
		Zip Code:	60120-9223		

PROBLEM STATEMENT

Provide a brief statement describing why the proposal is being submitted (i.e., the perceived deer-related problems).

Deer density exceeding the ability of the native vegetation to reproduce.

OBJECTIVES

Provide a brief statement describing the desired outcome of the deer control activities (i.e., what is trying to be achieved).

Reduce the deer density to a level that allows for a healthy deer population in conjunction with the ability for the native vegetation to reproduce.

PROPOSED MANAGEMENT SITES

List the sites where deer control activities are being proposed (e.g., forest preserve, preserve complex, site name, municipality, etc.).

Palos preserve	Zander Woods	
Tinley Creek Preserve	Bemis woods	
Busse Woods		
River Trail Nature Center		
Sauk Lake		

PROPOSED METHODS AND RELATED INFORMATION

Total number of deer proposed for removal: 350 **Proposed date to begin deer control activities:** 03 December 2019

Proposed management technique(s) (e.g., sharpshooting, live-capture and euthanasia): sharpshooting, netting /captive bolt

Are new management sites proposed? ☐ Yes ☒ No **Are new shooting zones and/or bait sites proposed?** ☐ Yes ☒ No

Provide contact information for the business that will be processing the deer collected through this program:

Business Name: Freedom Sausage **Contact Name:** Mark Wiley **Phone:** (815)792-8276
Street Address: 4155 East 1650th Road **City:** Earlville **State:** Illinois **Zip Code:** 60518

List below the name(s) of the charity(ies) to which venison will be donated:

Greater Chicagoland Food Depository		

Preuss, Timothy

From: Chris Anchor (Forest Preserve District) <Chris.Anchor@cookcountyil.gov>
Sent: Tuesday, November 05, 2019 8:04 AM
To: Preuss, Timothy
Subject: [External] Cook County
Attachments: IDNR DPCP Application Cover Page (003)2019X.pdf

Hope this works

Let me know if you prefer a different form

Preuss, Timothy

From: Preuss, Timothy
Sent: Wednesday, November 06, 2019 9:40 AM
To: Chris Anchor (Forest Preserve District)
Subject: RE: Cook County

This works! Thank you!

Tim Preuss
Urban Deer Project Manager
Illinois Department of Natural Resources
28W040 State Route 58
Elgin, IL 60120
Phone: (847) 798-7620

From: Chris Anchor (Forest Preserve District) <Chris.Anchor@cookcountyil.gov>
Sent: Tuesday, November 05, 2019 8:04 AM
To: Preuss, Timothy <Timothy.Preuss@illinois.gov>
Subject: [External] Cook County

Hope this works

Let me know if you prefer a different form

Preuss, Timothy

From: Chris Anchor (Forest Preserve District) <Chris.Anchor@cookcountyil.gov>
Sent: Wednesday, November 06, 2019 1:39 PM
To: Preuss, Timothy
Subject: [External] FW: Tinley Deer Proposal cook county 2019
Attachments: Final - Tinley Deer Proposal 2019-2020.docx

Thank you

This represents the requests for December.

Preuss, Timothy

From: Preuss, Timothy
Sent: Wednesday, November 06, 2019 1:46 PM
To: Chris Anchor (Forest Preserve District)
Subject: RE: Tinley Deer Proposal cook county 2019

Got it!

Tim Preuss
Urban Deer Project Manager
Illinois Department of Natural Resources
28W040 State Route 58
Elgin, IL 60120
Phone: (847) 798-7620

From: Chris Anchor (Forest Preserve District) <Chris.Anchor@cookcountyil.gov>
Sent: Wednesday, November 06, 2019 1:39 PM
To: Preuss, Timothy <Timothy.Preuss@illinois.gov>
Subject: [External] FW: Tinley Deer Proposal cook county 2019

Thank you

This represents the requests for December.

Preuss, Timothy

From: Preuss, Timothy
Sent: Monday, November 18, 2019 3:28 PM
To: Chris Anchor (chris.anchor@cookcountyiil.gov)
Subject: permits

Chris,

I have reviewed and approved FPDCC's DPCP applications for winter 2019-2020 for the Tinley Creek Complex and Glenwood/Zander Complex. You'll find the permits, tags, etc in your office in the morning. I also made some comments on your applications to consider for future applications. Let me know if you have any questions after you review them.

Tim Preuss
Urban Deer Project Manager
Illinois Department of Natural Resources
28W040 State Route 58
Elgin, IL 60120
Phone: (847) 798-7620

Preuss, Timothy

From: Preuss, Timothy
Sent: Thursday, November 21, 2019 12:33 PM
To: John.W.Hartmann@usda.gov; Chris Anchor (chris.anchor@cookcountyil.gov)
Subject: DPCP info
Attachments: CWD Sample Data Sheet-DPCP-FPDCC_2019-20.xlsx; DPCP Antler Log.xlsx; IDNR DPCP Summary Form.pdf

Chris and John,

Attached are a few items regarding FPDCC's DPCPs...

- 1) The CWD sample datasheet to use for recording CWD samples. The spreadsheet is modified slightly from last year so please read the instructions on the first tab. This spreadsheet is based on the current permits that have been issued for Glenwood/Zander and Tinley Creek. I will send out an updated spreadsheet after receiving the next batch of permit applications. As usual, include a hard copy of the data in the box when you ship the samples, and email the electronic version to me.
- 2) The antler log spreadsheet to use for recording antlers that are collected. This can be provided to me in electronic format at the end of the season.
- 3) The DPCP summary form to be submitted as part of the end-of-season summary report.

If you have any questions, let me know.

Tim Preuss
Urban Deer Project Manager
Illinois Department of Natural Resources
28W040 State Route 58
Elgin, IL 60120
Phone: (847) 798-7620

Preuss, Timothy

From: Preuss, Timothy
Sent: Wednesday, December 18, 2019 3:56 PM
To: Chris Anchor (chris.anchor@cookcountyil.gov); John.W.Hartmann@usda.gov
Subject: Second batch of permits
Attachments: CWD Sample Data Sheet-DPCP-FPDCC_2019-20.xlsx

Chris and John,

The second batch of DPCP applications is approved. The permits, tags, and CWD sample jars are in Chris's office. Attached is the updated CWD sample datasheet that includes the added sites and tag/sample numbers. Please use this sheet for recording CWD samples.

If you have any questions, let me know.

Tim Preuss
Urban Deer Project Manager
Illinois Department of Natural Resources
28W040 State Route 58
Elgin, IL 60120
Phone: (847) 798-7620

Preuss, Timothy

From: Hartmann, John W - APHIS <john.w.hartmann@usda.gov>
Sent: Wednesday, December 18, 2019 4:46 PM
To: Preuss, Timothy
Cc: Pullins, Craig K - APHIS; Chris Anchor (Forest Preserve District); Hoffman, Anthony M - APHIS
Subject: [External] Cook CWD samples
Attachments: CWD Sample Data Sheet-DPCP-FPDCC_2019-20 (1).xlsx

Tim,

I will be shipping the first batch of CWD samples to the lab today. The box is labeled "Cook –DPCP" and the datasheets are included.

Attached are the CWD datasheets for your records.

Please let me know if you have any questions.

John Hartmann
Wildlife Biologist
USDA APHIS Wildlife Services
13700 110th Avenue
Orland Park, IL 60467
708-403-6960

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Preuss, Timothy

From: Hartmann, John W - APHIS <john.w.hartmann@usda.gov>
Sent: Wednesday, December 18, 2019 4:47 PM
To: Preuss, Timothy
Cc: Hoffman, Anthony M - APHIS; Pullins, Craig K - APHIS; Chris Anchor (Forest Preserve District)
Subject: [External] RE: Second batch of permits

Thanks Tim.

John Hartmann
Wildlife Biologist
USDA APHIS Wildlife Services
13700 110th Avenue
Orland Park, IL 60467
708-403-6960

From: Preuss, Timothy [mailto:Timothy.Preuss@illinois.gov]
Sent: Wednesday, December 18, 2019 3:56 PM
To: Chris Anchor (chris.anchor@cookcountyil.gov) <chris.anchor@cookcountyil.gov>; Hartmann, John W - APHIS <john.w.hartmann@usda.gov>
Subject: Second batch of permits

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If you have any questions, let me know.

Tim Preuss
Urban Deer Project Manager
Illinois Department of Natural Resources
28W040 State Route 58
Elgin, IL 60120
Phone: (847) 798-7620

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Preuss, Timothy

From: Preuss, Timothy
Sent: Thursday, December 19, 2019 11:22 AM
To: Hartmann, John W - APHIS
Subject: RE: Cook CWD samples

Great! Thank you.

Tim Preuss
Urban Deer Project Manager
Illinois Department of Natural Resources
28W040 State Route 58
Elgin, IL 60120
Phone: (847) 798-7620

From: Hartmann, John W - APHIS <john.w.hartmann@usda.gov>
Sent: Wednesday, December 18, 2019 4:46 PM
To: Preuss, Timothy <Timothy.Preuss@illinois.gov>
Cc: Pullins, Craig K - APHIS <craig.k.pullins@usda.gov>; Chris Anchor (Forest Preserve District) <Chris.Anchor@cookcountyil.gov>; Hoffman, Anthony M - APHIS <anthony.m.hoffman@usda.gov>
Subject: [External] Cook CWD samples

Tim,

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Attached are the CWD datasheets for your records.

Please let me know if you have any questions.

John Hartmann
Wildlife Biologist
USDA APHIS Wildlife Services
13700 110th Avenue
Orland Park, IL 60467
708-403-6960

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