Village of CALEDONIA

PARK & RECREATION ADVISORY COMMITTEE MEETING
Monday, April 12, 2021 at 4:30 PM
Caledonia Village Hall – 5043 Chester Lane

THIS WILL BE AN IN-PERSON MEETING – MAX NUMBER OF ATTENDEES 16

1. Call to Order
2. Approval of Minutes
3. Public Comment (2 minutes/person)
4. Maintenance Report Update
5. Caledonia Youth Baseball Agreement
6. Joint Park 2021 Special Events
7. Presentation Materials from Caledonia Conservancy
8. New Business
9. Adjournment

Dated this April 9, 2021

Joslyn Hoeffert
Village Clerk

Only committee members are expected to attend. However, attendance by all Board members (including non-members of the committee) is permitted. If additional (non-committee) Board members attend, three or more Board members may be in attendance. Section 19.82(2), Wisconsin Statutes, states as follows:

> If one-half or more of the members of a governmental body are present, the meeting is rebuttably presumed to be for the purposes of exercising the responsibilities, authority, power or duties delegated to or vested in the body.

To the extent that three or more members of the Caledonia Village Board actually attend, this meeting may be rebuttably presumed to be a "meeting" within the meaning of Wisconsin's open meeting law. Nevertheless, only the committee's agenda will be discussed. Only committee members will vote. Board members who attend the committee meeting do so for the purpose of gathering information and possible discussion regarding the agenda. No votes or other action will be taken by the Village Board at this meeting.

Park & Recreation Advisory Committee Meeting
February 8, 2021

Committee: Caledonia Trustee Tom Weatherston, Caledonia Trustee Lee Wishau, Residents: Mark Leskowicz, Christian De Jong,

Absent: Josh Sopczak, and Michael Lambrecht were excused.

Staff/Others: Development Director Peter Wagner, Trustee Fran Martin, Trustee Dale Stillman, and Ken Michel of the Franksville Beer Garden.

1. Call to Order

TW calls to order at 5:31 p.m.

2. Approval of Minutes

LW moves to approve, MaL seconds. Voice vote carries

3. Public Comment (2 minutes/person)

No public present

4. Maintenance Report Update

PW shares current relationship between Highway and Parks department, looking to get more help with Parks needs.

Restrooms floors and painting happening at Joint Park.

Trying to run leagues this year that were cancelled due to Covid.

Many maintenance items require warmer weather to complete.

5. Beer Garden Discussion

Items 1-6 on the attachment refer to discussion items that should be referred to the finance committee.

CdJ asks for clarification on the types of chips

PW mentions that Village Staff is still discussing transfer of the Joint Park to the County. Discussion around the possibility leads to members sharing their thoughts that 2021 will not see a transfer of the Park.

CdJ moves to move to the Finance committee, LW seconds. Voice vote carries.

6. Parks Manager Discussion

TW shares that he has discussed the issue with President Dobbs, and the position might turn into one shared with other departments.

7. New Business

No new business

8. Adjournment

LW moves to adjourn, MaL seconds. Voice vote carries.

Meeting adjourned at 5:50pm

Village of CALEDONIA

Meeting Date: April 12, 2021

Item No. **4**

PARK AND RECREATION ADVISORY COMMITTEE REPORT

Agenda Item: Maintenance Update

Background: The following items are the remaining items that were identified by Village Staff and Trustee Wishau as maintenance matters.

	Issue	Work by	Maintenance	Capital	Status
Crawford	VOLLEYBALL COURTS S/B USABLE WITH NETS - OR ELIMINATE. NEED GRADING!	PARKS	X		I
Crawford	REPLACE PARTY GRILLS, SWITCH TO SURFACE MOUNT	PARKS		X	N
Ncholson	STORMWATER SUSPECTED FAILURE - DRAINAGE	UTILITY	X		N
Gorney	DEAD TREES ON EAST SIDE OF POND/BY PLAYGROUND - MEMORAL TREE NEED REMOVAL AND MEMORIAL TREE REPLACED	HWY	X		I
Gorney	REPLACE PARTY GRILLS, SWITCH TO SURFACE MOUNT	PARKS		X	N
Gorney	MAKE LEVEL AND STRAIGHTEN INFORMATION SIGN	HWY	X		I
Gorney	REPLACE BROKEN PIECE BY BURKE PG EQUIPMENT	PARKS	X		N
Gorney	FIND SOLUTION FOR AGED COVERING ON STAIRS	PARKS	X		I
Linwood	REPLACE PARTY GRILLS, SWITCH TO SURFACE MOUNT	HWY		X	N
Linwood	REMOVE KIDS SANDBOX BEHIND BUSHES IN BACK	PARKS	X		N
Linwood	HORSESHOE PIT CLEAN UP, ADD SAND, SQUARE OFF BETTER	PARKS	X		N
Joint	Clean or replace ceiling vents in Hall	PARKS	X		C
Joint	Clean windows in Hall	PARKS	X		C
Joint	Paint inside the women's restroom exit door.	PARKS	X		C
Joint	Remove hose & hose cart near Shelter 2	PARKS			N
Joint	Bathroom Building - replace or remove water fountain	PARKS	X		N
Joint	Identify dead trees & stumps that need to be removed throughout park	HWY	X		I
Joint	Dispose of jet ski	PARKS			I
Joint	Dispose of Route 20 trailer	PARKS			I
Joint	Dispose of trailer behind garage	PARKS			I
Joint	Remove pink handle by Shelter 4	PARKS			N
Joint	Pressure wash & seal inside roof of the Ocatogon	PARKS	X		I
Joint	Repair or remove fencing	PARKS	X		N
Joint	Install new playground mulch for playgrounds	PARKS		X	N
Joint	Paint Shelters	PARKS	X		N
Joint	Replace chairs and tables for Hall	PARKS		X	C
Joint	Refinish mens and womens restroom flooring Joint Hall	PARKS	X		C
Joint	Install window treatments for Joint Hall	PARKS		X	C
Joint	Install Coat Rack Joint Hall				

I – In Progress N – Not Started C- Completed

Joint Park: Since last meeting, Park staff has groomed the baseball diamonds; completed refinishing the bathroom floors at Joint Park Hall and Bathroom Building; razed the garage behind Shelter 2 near the Joint Park Hall. After the garage was razed, staff observed a large pile of railroad ties that were removed. Staff has received two of three required quotes to remove dead

trees and stumps. Once we have the third quote, following procurement protocols, we can move forward with hiring a contractor. Staff assisted the flower garden club with prepping the area around the Joint Park flagpole and installed a solar light to the flagpole. Staff has removed the broken bubbler outside the bathroom facility and is in the process of patching the hole for the water supply. New table and chairs have been installed at the Joint Hall Park and old table and chairs have been placed in storage until steps are taken to repurpose or auction. Window blinds have been installed on windows and a coat rack installed in the Joint Park Hall. The volleyball courts have been groomed and one net installed. Additional grooming work will be required to improve the quality of the sand courts. Staff is in the process of receiving quotes for the installation of electricity to shelters 4 & 6.

Crawford Park: The water supply has been turned on at the park. Waiting for quotes regarding the repainting of the tennis courts. Funds for this project have been set aside from sponsors. Once the courts are repainted, staff has plans to fix the gap between the tennis court fencing and ground preventing balls from going underneath.

2021 Capital Improvement Plan Projects: Three projects were approved for the 2021 budget year.
1) Repaving of the Joint Park parking lot – Staff has been directed to hold this project until such time the Village and Racine County have decided whether to transfer park ownership to the County.
2) Joint Park Hall Tables & Chairs – As state earlier in this report, the tables and chairs have been purchased and installed at the Hall. There are enough chairs and tables to accommodate the capacity of the Hall.
3) 1- ton Truck – Staff has received a quote of $46,885 for a Ford F-350 with snowplow prep package and a steel dump body. The 2021 Budget allotted $35,000 for this truck. Staff is working with the Finance Department to determine how to proceed with the purchase. The snow prep package adds an additional cost of $250 but does not include a snowplow blade. Staff believes that fitting this vehicle with a snowplow can save maintenance costs pertaining to plowing of the Village Hall parking lot and other parks sites.

General Park System: Staff has installed trash cans throughout the park system and has been picking up sticks and other debris that has accumulated throughout the park system over the winter season. As weather permits, staff will be painting the Park's garage and other park facilities.

Upcoming Projects: Hire a contractor to pave a sidewalk and concrete pad for future shelter at Maple Park. This sidewalk is required to be installed to meet ADA requirements for accessibility to playground equipment at the park.

Respectfully submitted:

Peter Wagner

Peter Wagner, AICP
Development Director

RESOLUTION NO. 2021-48

A RESOLUTION OF THE BOARD OF TRUSTEES OF THE VILLAGE OF CALEDONIA APPROVING A PARK USE AGREEMENT FOR CALEDONIA BASEBALL/SOFTBALL LEAGUE, INC. FOR USE OF THE CRAWFORD PARK.

The Board of Trustees of the Village of Caledonia, Racine County, Wisconsin do resolve as follows:

WHEREAS, the Village of Caledonia owns and operates Crawford Park located at 5199 Chester LN, Racine, WI 53402, which is located in the Village of Caledonia; and

WHEREAS Caledonia Baseball/Softball League, INC. has a history of playing baseball at the ball diamond at Crawford Park; and

WHEREAS, the Village of Caledonia and Caledonia Baseball/Softball League, INC wish to enter into an agreement governing the use of Crawford Park by Caledonia Baseball/Softball League, INC;

NOW THEREFORE BE IT RESOLVED THAT, the Board of Trustees of the Village of Caledonia approves the agreement set forth in **Exhibit A** with an effective date of April 1, 2021.

Adopted by the Board of Trustees of the Village of Caledonia, Racine County, Wisconsin, this 5 day of April, 2021.

Village of Caledonia

By: _____
James Dobbs
Village President

Attest: _____
Joslyn Hoeffert
Village Clerk

770272.001 (45)

PARK USE AGREEMENT BETWEEN THE BOARD OF TRUSTEES OF THE VILLAGE OF CALEDONIA AND CALEDONIA BASEBALL/SOFTBALL LEAGUE, INC.

This Park Use Agreement (the "Agreement") is made and entered into as of the date last executed by either Party below, (the "Effective Date"), by and between the **VILLAGE OF CALEDONIA**, (the "Owner"), and **CALEDONIA BASEBALL/SOFTBALL LEAGUE, INC.** (the "User"), as represented by a Board Member. Referenced together, the Owner and the User are the "Parties" to this Agreement.

WITNESSETH:

WHEREAS, the Owner operates Crawford Park located at 5199 Chester Ln, Racine, WI 53402, (the "Park"), which is located in the Village of Caledonia (the "Village") and shown in **Appendix A;** and

WHEREAS, Appendix A also depicts the location LCpl Daniel R. Wyatt Ballpark, which includes the concession stand and two ball diamonds located in the Park; and

WHEREAS, the User operates a youth baseball league for Caledonia children, which needs a baseball diamond to play its games and a concession stand to operate concessions; and

WHEREAS, the Parties wish to enter into an agreement governing the use of the Park by the User; and

NOW THEREFORE, the Parties do herewith, in consideration of mutual promises and other good and valuable consideration, agree as follows:

1) **Term; Not Assignable.** This Agreement shall be in effect for the period from April 1 through September 1, for operations and for the purpose of cleaning the concession stand. This agreement shall have an initial term of one year from the effective date. Upon expiration of the initial term, this agreement shall automatically renew from year to year for a period of five years from the initial term or until either party notifies the other in writing of an intent not to renew the contract. The Village's Development Director or Designee is authorized to give a notice of not to renew under this Agreement. Any notice of termination is required to be delivered between the month of September 1 and March 15. This Agreement is not assignable by the User.

2) **No Ownership Granted.** This Agreement does not grant any ownership interests.

3) **Concession Stand.** The User shall have all property removed from the concession stand and the stand completely cleaned by August 31, unless the Owner grants additional time in writing at least thirty (30) days in advance. Other than the dates indicated, such use of the concession stand is not exclusive, and the Village Board or Village staff reserves the right to rent the concession stand to third parties at all other times outside of the listed period without prior notification to the User. The Owner reserves the right to rent the shelter area attached to the concession stand to any third party at any time it is not reserved by the User and without notice to the User.

4) **Ball Diamonds; Not Exclusive Use.** This Agreement allows the User use of the two ball diamonds at Crawford Park for the term above. This does not authorize exclusive-use of the ball diamonds; members of the public may use these areas before the fields have been prepped by the User or are not in-use for User activities and prior to 3:00 p.m. on weekdays. For avoidance of doubt, unless specifically authorized by the Village's Development Director or Designee, the fields should not be prepped before 3:00 pm on weekdays.

5) **General use of the Park.** The Park is a public Park, and nothing in this agreement prohibits use of the Park for by the general public.

6) **Permits/Approvals.** The User shall be responsible for all needed permits and approvals from any governmental entity related to the operation of the concession stand and for staffing the concession stand at any time it is in operation.

7) **Inventory/Equipment.** The User shall be solely responsible for providing and maintaining all inventory and equipment at the concession stand. The Owner reserves the right to refuse use of any inventory or equipment it deems unreasonable, excessive or unsafe or that may damage the premises.

8) **Keys.** The User shall have access to four (4) keys for the concession stand, the accompanying storage room and the adjacent restrooms at all times. If any keys are lost, the User shall be responsible for costs for rekeying the locks if determined necessary by the Owner. The User shall be responsible for ensuring that the restrooms are open and accessible to the general public at all times the concession stand is in use. The User shall lock the restrooms when games are completed at the end of each day or immediately after the games are concluded if activities will conclude for the day at that time. The User shall ensure that the restrooms are clean at the end of each day of use by the User. The User shall place all full bags of trash and boxes from restroom in the assigned area as agreed upon by the Parties for pick-up. The User shall return the keys to the Owner by August 31, 2021.

9) **Cleaning; Maintenance.** The User shall be responsible for the cleaning and general maintenance of the LCpl Daniel R. Wyatt Ballpark area for the term of this Agreement during and after games and practices. The User shall make certain that the grounds, concession stand (daily cleaning after use), and surrounding areas are clean and presentable at all times while in use. The User shall be responsible for maintaining the ball diamonds and returning them at the end of the season in a condition equal to or better than they were received at the start of the season. The Owner shall be responsible for the cleaning and general maintenance at all other times. The User shall ensure that the restrooms are clean at the end of each day of use by the User. The User shall place all full bags of trash and boxes in the assigned area for pick-up. The bathrooms will be clean and fully stocked by the Owner at the beginning of each weekday. User shall be responsible to restock supplies in the bathrooms as needed each day during use.

10) **Repairs.** Any repairs that are needed to the concession stand or grounds must be reported to the Owner in a timely manner, and a reasonable time must be allowed for repairs to be completed. Beyond the normal wear and depreciation of assets, the User is responsible for

any damages to the premises and facility. The Owner reserves the right to bill the User for repairs and or maintenance as a result of any damage, waste and/or neglect caused by the User or its invitees and guests during the term of this Agreement.

11) **Supplies.** The User shall provide all supplies required for field preparation, including, but not limited to, chalk, and related equipment. The User shall provide all first aid supplies to its participants, invitees and guests. The Owner will spray for weeds as it determines necessary prior to the season and provide help and direction to the User in prepping the diamonds for the start of the season to ensure that the preparation is in compliance with Owner requirements. The Owner shall provide all supplies required for the bathrooms, including, but not limited to, toilet paper, hand towels and soap for washing hands. The User shall restock for needs over the course of the day.

12) **Improvements.** Permanent improvements shall only be installed with prior approval of Owner at the cost of the User, unless otherwise agreed by Owner. Any permanent improvements to the premises will become property of the Village of Caledonia. Examples of permanent improvements include lighting, adding dirt to low areas, possible drain tiles and reseeding the grass. Temporary equipment and signage require prior approval by Owner. Banners may be temporarily placed on the premises with the prior approval of the Owner. Any banners placed shall be maintained in good condition or taken down if damaged. Owner reserves the right to sell advertising space and place permanent or temporary signs and banners on any part of the premises, including, but not limited to, fencing, scoreboards and permanent structures except for the areas referred to in appendix B during the duration of this agreement. Banners may be displayed on the premises by the User for the duration of this agreement. See **Appendix B** for the Users placement of banners. However, in no case shall any banner be placed on the concessions building or bathroom building.

13) **Storage Space.** The User will be provided space in the Maintenance Building at Crawford Park to store one motorized piece of equipment to be used for dragging the fields and a limited number of manual tools and supplies needed for proper field upkeep and preparation, such as rakes, wheelbarrows, lining machines, etc. All items must be clearly marked as "Property of Caledonia Ball," or similar wording, and must be removed by August 31, 2021, unless granted specific permission in writing at least 30-days prior from The Owner to leave them in the Maintenance Building. The Village of Caledonia, the Owner and its employees, officials, volunteers and any agents thereof shall not be held responsible for any loss or damage to any items or property left on Park premises.

14) **Insurance.** Owner assumes no responsibility for any loss or damage to User's personal property while in use or stored at or on the Park. User shall maintain comprehensive liability insurance as required below, including full replacement of damaged property. No less than 15 days prior to the first calendared Event, User shall provide Owner with evidence of said coverages as set forth herein, including insurance certificates and all referenced riders and endorsements, in forms reasonably satisfactory to Owner. All insurance shall be issued by insurers with a license to do business in the State of Wisconsin. User's insurance coverage shall be primary and noncontributory as respects Owner, the

Village, including all of its respective officials, officers, employees and agents. User's insurance shall apply separately to each insured against whom a claim is made, or suit is brought, except with respect to the limits of the insurer's liability.

a) Comprehensive Commercial General Liability: One Million Dollars ($1,000,000) per occurrence and at least Two Million Dollars ($2,000,000) aggregate; policy shall provide coverage for volunteers and invitees and guests of User.

b) Owner, the Village of Caledonia, and its respective officials, officers, employees, and agents, shall be named as an additional insured for General Liability and Automobile Liability by specific endorsement.

c) Workers Compensation: When applicable- Statutory Limits;

15) **Hold Harmless; Indemnification.** The User agrees to protect, save, defend and hold harmless and indemnify the Village of Caledonia and its boards, commissions, committees, and each member of said boards, commissions and committees, and all Caledonia's officials, agents and employees, from any and all claims, liabilities, expenses or damages of any nature, including attorney fees and litigation costs, for injury or death of any person, or damage to Premises, including any liability under environmental protection laws, or interference with use of Premises, arising out of or in any way connected with the User's activities under this Agreement, other than with respect to any negligent acts, errors or omissions or willful misconduct by the Village of Caledonia, or its employees, officials or agents. This hold harmless shall apply to all liability regardless of whether any insurance policies are applicable, and any policy limits shall not act as a limitation upon the amount of indemnification to be provided. If the Village of Caledonia initiate legal or other action to enforce the terms of this Agreement and the outcome is in favor of the Village of Caledonia, the User shall be liable to the Village of Caledonia for reasonable attorney's fees and costs in enforcing the terms of this Agreement. User shall indemnify Owner, the Village of Caledonia, along with all its respective officials, officers, agents, and employees, from, and hold them harmless against all liability, claims and demands on account of personal injuries, property damage and loss of any kind whatsoever, including workers' compensation claims, which arise out of User's use of the Park related to the novel virus COVID-19.

16) **COVID-19 Waiver of Liability:** User, its employees, volunteers, players, parents, and other attendees, by utilizing Owner's park, may be exposed to or have an increased risk of contracting or spreading COVID-19. User hereby accepts the risk of contracting COVID-19 for User's employees, volunteers, players, parents, and other attendees. User, its employees, volunteers, players, parents, and other attendees, and User, its employees, volunteers, players, parents, and other attendees hereby forever releases and waives any right to bring suit against Owner, the Village of Caledonia, and Owner's officers, directors, managers, officials, trustees, agents, employees, or other representatives in connection with exposure, infection, and/or spread of COVID-19 related to utilizing the Park. User understands that this waiver means User, its employees, volunteers, players, parents, and other attendees give up their right to bring any claims including for personal injuries, death,

disease or property losses, or any other loss, including but not limited to claims of negligence and give up any claim they may have to seek damages, whether known or unknown, foreseen or unforeseen.

17) **Scheduling.** The User will provide the User a schedule of all games and events, such as tournaments, prior to April 1 and these times shall be considered reserved. Every effort will be made by the Owner to block out additional weeknights and Saturday mornings during the listed period to allow for make-up games and team practices. The Owner cannot reserve or rent out the ball diamonds to a third party at Crawford Park for the listed period without written approval from the User unless the User is notified prior to April 1 of not more than 6 separate dates during the terms of this agreement.

18) **Consideration.** In exchange for assuming the upkeep of the fields and Ballpark area, no other remuneration will be required from the User for related expenses for the duration of this Agreement, except as may be required to repair attributable to uses by the User under this Agreement.

19) **Copies of permits and certificates**. The User shall provide copies of its certificate of insurance, permits related to the operation of the concession stand and User schedules prior to receiving keys on April 1.

20) **Pre-term and Post-term Walkthrough; Deposit**. A representative of the Owner and a representative of the User will perform a walk-through of the facilities prior to the exchange of keys on or about April 1, at which time any deficiencies will be noted and addressed. The User shall pay the Owner a Deposit of $750, due by April 1, 2021. Representatives of the two parties will again walk-through and inspect the facilities at the end of the season and prior to August 31, 2021. The Deposit will be refunded to the User within 30-days, minus any charges based on condition, damage or deficiency attributable to the User. The parties may agree to allow the Deposit to roll over from year-to-year.

21) **Termination**. The Owner shall notify User in writing of any conditions listed above that are not being followed by the User. The User will be required to resolve the defaulted condition within a reasonable amount of time and provide the Owner a written solution within 10 days. If the User does not provide the written solution within 10 days the Owner will have the right to terminate this License under Agreement. The User shall be provided five (5) days advance written notice of termination and afforded the opportunity for corrective action before termination takes effect, except in the case of an emergency in which the premises are deemed unsafe or to prevent additional damage from occurring to the premises and in such case the Owner is not required to give notice prior to corrective action. If the Village incurs any costs for corrective action, User shall be responsible for the cost. The Village Development Director is authorized to provide any necessary notice of Termination under this Agreement or notices to correct or violation.

22) **User Waiver**. The User hereby waives all right to any claim for compensation for any loss or damage sustained by reason of and defect, deficiency, failure, or impairment to the water supply, drainage, electrical, or any systems provided by the Owner or the Village of

Caledonia. The Owner and the Village of Caledonia shall not be liable for any claim if the premises are damaged by fire or other casualty, or for any other act, including strikes, utility failure or acts of God, which prevent the intended use provided for herein. The Owner and the Village of Caledonia shall have no liability to User for any injury, or damage caused by third parties, or by any condition of the facilities.

23) **Safe Use Required**. All standard Village park ordinances, rules and regulations apply to this use. The User, its employees, subcontractors, vendors, guests, patrons, and invitees shall use the premises in a safe, careful and lawful manner, and use reasonable, best efforts not to allow any act to be done which will alter, mar, deface, or injure any part of the premises, or other property of Crawford Park. The User shall conduct all operations in compliance with all fire, health and safety standards specified by applicable law.

24) **No Discrimination**. User shall not discriminate against any participant, employee or any applicant for employment because of race, religion, or national origin, and further agrees to likewise not discriminate for those same reasons against any person relative to admission, service or privileges offered to, or enjoyed by, the general public.

25) **Fee Structure**. The fee schedule that sets forth the costs and charges for the use of Crawford Park Grounds and/or Services shall be in accordance with the fee schedule adopted by the Village of Caledonia from year-to-year. User agrees to pay Caledonia Village the fees specified in such adopted fee schedule that is on file with the Village of Caledonia.

26) **Force Majeure**. Neither party will be liable for failure or delay to perform obligations under this Agreement, which have become practicably impossible because of circumstances beyond the reasonable control of the applicable party. Such circumstances include without limitation natural disasters or acts of God; acts of terrorism; labor disputes or stoppages; war; government acts or orders; epidemics, pandemics or outbreak of communicable disease; quarantines; national or regional emergencies; or any other cause, whether similar in kind to the foregoing or otherwise, beyond the party's reasonable control. Written notice of a party's failure or delay in performance due to force majeure must be given to the other party no later than five (5) business days following the force majeure event commencing, which notice shall describe the force majeure event and the actions taken to minimize the impact thereof. All delivery dates under this Agreement affected by force majeure shall be tolled for the duration of such force majeure. The parties hereby agree, when feasible, not to cancel but reschedule the pertinent obligations and deliverables for mutually agreed dates as soon as practicable after the force majeure condition ceases to exist.

27) **Notices**. All notices with respect to this Agreement shall be in writing, and e-mail shall constitute writing for the purposes of the foregoing. Except as otherwise expressly provided in this Agreement, a notice shall be deemed duly given and received upon delivery, if delivered by hand or after posting via US Mail, to the party addressed as follows:

To User:

Caledonia Baseball/Softball League, Inc.
Robin Posnanski
PO Box 194
Franksville, WI 534___

With a copy to the Registered Agent per WI DFI Record of User.

To Owner:

Village of Caledonia
Village Clerk
5043 Chester Lane
Racine, WI 53402

With a copy to the Village
of Caledonia Development Director at the same address:
Either party may designate a new address for purposes of this Agreement by written notice to the other party.

[The remainder of this page is intentionally left blank]

The Parties have executed this Agreement effective as of April 1, 2021.

VILLAGE OF CALEDONIA

By: _____
James Dobbs, Village President

Attest: _____
Joslyn Hoeffert, Village Clerk

CALEDONIA BASEBALL/SOFTBALL LEAGUE, INC.

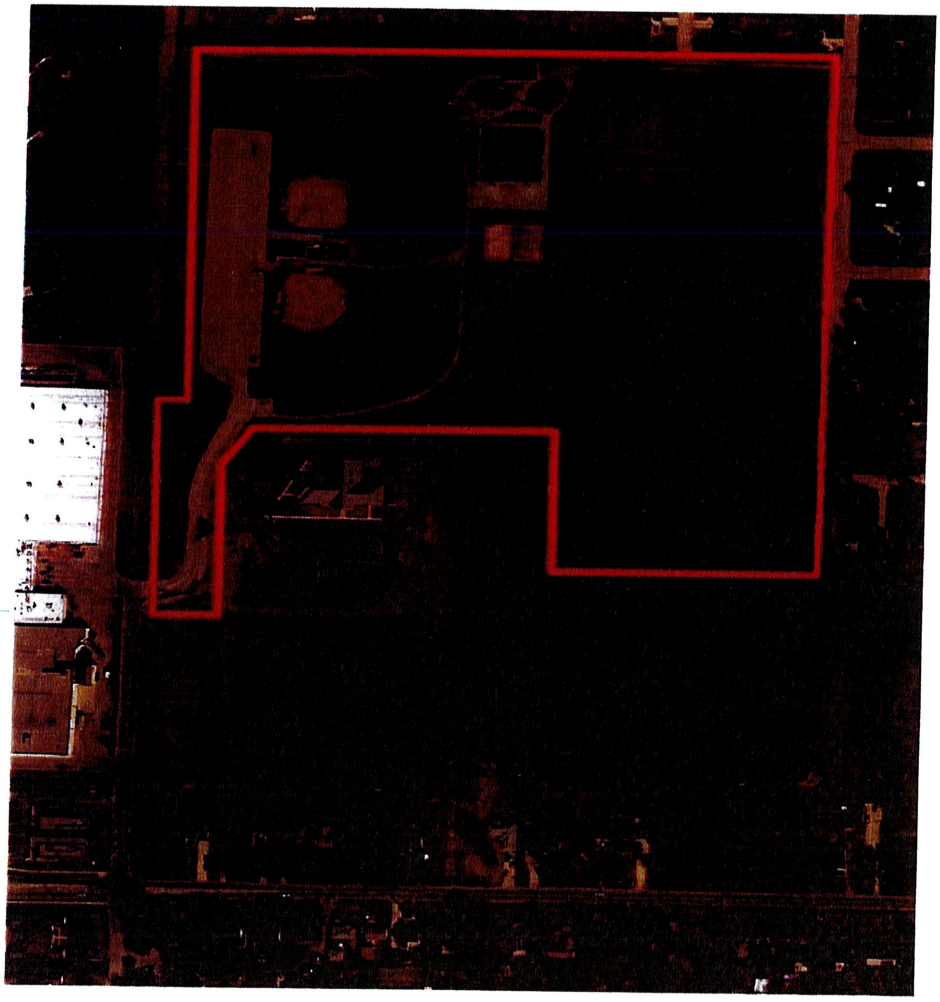
By: _____

Name: _____

Title: _____

APPENDIX A

EXHIBIT A



8

Signage will be sold and placed in the following order:

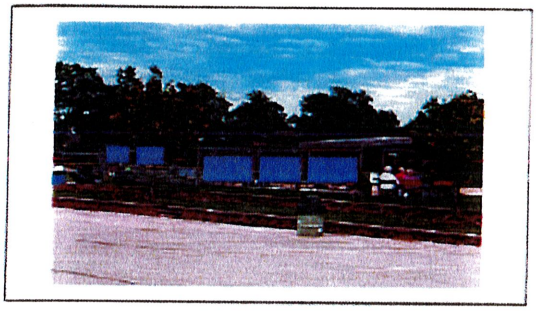
1) On the fence of the dugouts
   a. Dugouts facing the parking lot

2) On the fence
   a. Behind the Grandstand
   or
   b. Dugouts facing the walk way behind the concession stand

3) On the fence behind Homeplate

2

3



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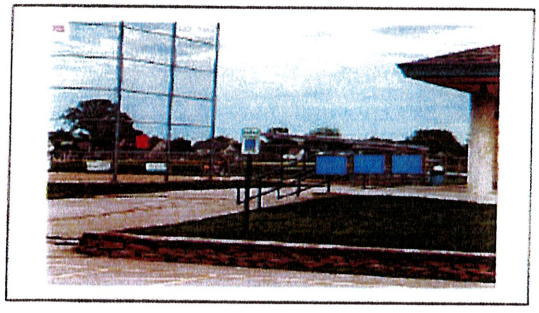

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7

4th Annual Franksville Food Truck Festival*

September 10, 2021 – Event Time 3-10PM
September 11, 2021 – Event Time 10-10PM (All Day)
Setup: September 8 /9 Takedown: September 12/13
(Most Setup & Takedown is before or after regular park usage)

Additional Park Usage Map (See Attached Map)

Area – 1 & 4 Parking (Weather Dependent)
Area – 2 & 3 Additional Event Premises
Closed Street through the Area
(We will provide all signage for park access and parking)

Event Description

The 4th Annual Franksville Food Truck Festival continues the tradition of being Racine County's original and largest food truck festival. Over the course of two days, we invite 16-24 food trucks/vendors to participate in creating a community event that is fun for the entire family. We keep the same spirit of the FCBG but on a larger scale. The event is held annually the Friday and Saturday after Memorial Day and is supported by Real Racine.

Changes & Notes for 2021

- Currently planning for FREE parking
- Trucks along park street (same as 2019 & 2020)
- Possibly adding a non-profit/charity component
- More Seating throughout area
- Improved signage for parking/directional/closure
- Additional Restroom units and sinks
- Parking attendants for peak times additional Handicap Parking
- Increased garbage units throughout area including parking
- Covid-19 related safety precautions and adjustments

*Included in list of events for Park Use Agreement

4th Annual Oktoberfest of Greater of Racine*

September 23, 2021 – Event Time: 3-9PM

September 24, 2021 – Event Time: 3-10PM

September 25, 2021 – Event Time: 11-10PM

September 26, 2021 – Event Time: 11-7PM

Setup: September 21/22 Takedown: September 26/27

(Most Setup & Takedown is before or after regular park usage)

Additional Park Usage Map (See Attached Map)

Area 1 – Parking (Weather Dependent)

Area 2 – Additional Event Premises

(Area 2 is only used 10-30 feet beyond our premises for placing tent around un-level ground and underground water lines. Trying to adjust to be completely within premises)

Event Description

The 4th Annual Oktoberfest of Greater Racine is our end of the regular season celebration. The event takes place annually on the final weekend of September with the community spirit of a traditional German Oktoberfest. We invite some of our favorite FCBG regular food vendors and breweries to join for the festivities.

Changes & Notes for 2021

- No major changes planned for 2021. This was the first Oktoberfest event with weather that didn't force major changes during the event.
- Increase children's activities, especially during the day
- Possibly adding a non-profit/charity component
- More Seating throughout area
- Covid-19 related safety precautions and adjustments

*Included in list of events for Park Use Agreement

2nd Annual Taco Fest of Racine

July 24, 2021 – Event Time 2-10PM

Setup: July 23 Takedown: July 25/26

(Most Setup & Takedown is before or after regular park usage)

Additional Park Usage Map (See Attached Map)

Area 1 – Parking as approved by Contract

No additional area but parking will be used to the maximum capacity

Event Description

The 2nd Annual Taco Fest of Racine will build on the success of the inaugural event in 2020. The event brings together some of Southeast Wisconsin's favorite Taco Trucks and a few Pop-up Restaurants. This is a family friendly event that brings the spirit of the community to celebrate all things taco!

Changes & Notes for 2021

- Currently planning for FREE parking
- More Seating throughout area
- Improved signage for parking/directional/closure
- Increased garbage units throughout area including parking
- Covid-19 related safety precautions and adjustments
- Possibility of Expanding in 2022 to use the park street, similarly to the Franksville Food Truck Festival

Night Markets at the Beer Garden

June 19, 2021 – Event Time 4-8PM
July 17, 2021 – Event Time 4-8PM
August 21, 2021 – Event Time 4-8PM

Setup: Same Day Takedown: Same Day
(Most Setup & Takedown is before or after regular park usage)

Additional Park Usage Map (See Attached Map)

None beyond beer garden

Event Description

The Night Markets at the Beer Garden are held once a month in June, July and August. We invite local businesses, craft vendors, etc to reserve a space to promote/sell within the beer garden. We are asking to raise the limit of vendors to 24 from the 16 that were allowed in 2020 because of Covid. Everything takes place within the beer garden.

Changes & Notes for 2021

- Increase Number of allowed vendors
- Covid-19 related safety precautions and adjustments

Ad Hoc King's Corner Planning Group

Marcia Wensing -- Wendy McCalvy -- Diana Lesnjak

Assumptions discussed/ meeting notes from May 20, 2019:

1. **The land donated at King's Corner is a valuable and visible CC property that can raise community awareness of the work and aims of the CC; and so stewardship, maintenance, and use development should be undertaken with sequential planning.**
2. **There are three aspects of stewardship over any land conservancy that require direct attention: 1) ecology, 2) proposed clients/users, and 3) appropriate current and future site work. All three must be consistently addressed.**
3. **In any successful project plan, five planning benchmarks must be met for success**

   VISION – for the project
   SKILLS – logistics of personnel / equipment
   INCENTIVES – to begin with the end in mind
   RESOURCES – financial and supply needs foreseen over time
   ACTION PLAN – lists; sequential tasks; the short and long views.

   Without these benchmarks the risk is getting bogged down or even swamped.

Vision for King's Corner, Caledonia, mixed-ecology parkland at the northwest corner of Hwy.31 at Five Mile Road

[Vision statement language is based directly on the June 30, 2018 King's Corner Stewardship Plan, page 16, Restoration Goals.]

- **King's Corner will serve as an AMBASSADOR LAND for the CC. Creating a multi-purpose and multi-age recreation zone will help to attract and serve the next generations of CC members and donors, as well as the general public.**
- **Three elements will drive all planning.**
    1. **Enhance / repair the ecosystems at King's Corner, enhancing wildlife, songbird, and pollinator habitat. This may include but not be limited to: managing invasive species; removal or planting of trees, shrubs, flowers, grasses, etc.; terraforming as for a rain garden; repurposing fallen timber; and adhering to all pertinent state/federal statutes and regulations.**
    2. **Connect people of all ages to nature, creating an aesthetically pleasing diverse parkland with attention to varying types of recreation. This may include but not be limited to: signage, horse and walking trails, play areas, wetland crossings, information kiosks, benches, tours, activities.**
    3. **Develop resources for creation, ongoing maintenance, and improvement of King's Corner. Creation of this recreation area will not be possible without attention to current and future logistic needs and hopes, included in an ACTION PLAN. This may include but not be limited to: gifts, grants, allocations from CC funds, supply donations, fundraising events, task lists, many volunteers, professional assistance.**
- **We will not ask more of the land than it can provide, nor will we change it more than what is necessary for those we foresee to use it.**

King's Corner Vision Statements, as follows.

King's Corner – Dream With Us !!

King's Corner has some fields and some woods. It is not a park yet, and so we want to know what to have to make it a really good park.

In the box below, draw what you want to see in your favorite park.

What things does the picture show that you like in the park?

_____ _____

_____ _____

Which of these things do you want to do in your favorite park? Mark your favorite ones.

_____ hike or walk on paths

_____ run in a field

_____ make up a play to act out

_____ climb on something

_____ fly a kite

_____ play hide and seek

_____ bring your dog

_____ have a picnic

King's Corner – Dream With Us !!

King's Corner property at 5 Mile Road and Highway 31 has both fields and woods, including some wetlands (but not a pond or river). We are asking for your help in identifying what is ideal in a park you would go to for various activities. Caledonia Conservancy volunteers want to make this your favorite park, if possible.

Do you have a current favorite park? (Name)_____
What things does your current favorite park or wild area have that you love?

_____ _____

_____ _____

What are the activities you would enjoy in a truly nice park area? Mark your favorite ones, then dream up and add your own ideas. We want your ideas!

_____ hike or walk on paths
_____ play in the field / frisbee/ball
_____ act or sing in an outdoor theater
_____ climb on something
_____ fly a kite
_____ identify birds or plants
_____ bring your dog
_____ have a picnic

_____build a hiding place_____
_____

_____ _____

Now take a look at the card with the colored pictures of things in other Nature Parks. Put a check mark next to ones that appeal to you.

Do you have any other comments about planning for a whole new PARK in Caledonia? Write below. THANK YOU!

Restoration Ecology
Caledonia Conservancy Restoration Plan
Dr. David Rogers
May 17, 2019

By: Nik Chapman, Sydney Johnson, Jack Meade, Dom Hammudeh

Restoration Objectives and Plan for The Caledonia Conservancy: King's Corner

Goals and Objectives:

There are various goals and objectives for our clients at King's Corner, The Caledonia Conservancy. Above all, this location is to be used for recreational activity, particularly horseback riding on the clear trails. Since many of the hard-working volunteers at King's Corner are avid horseback riders, this is of huge importance. For those who are not equestrians, the trails may be used for walking, jogging and general exploring. People are welcome to bring their children of course, and even their pets. The influx of visitors will provide ample opportunity for education on topics the visitors may otherwise not know about. We are proposing signs for education much like the signs in Tabor Woods. The signs would not only provide information but make the experience more fun for families with a hands-on learning experience. In addition to families, it would be wonderful to welcome schools in the area for field trips to this location once restored. For all visitors, riders and walkers alike, we want a beautiful location. To do this, we must restore the land and provide habitat for species of interest. This means clearing all of the unsightly invasive brush along with the dead ash and planting oak as well as plants that attract pollinators. In doing this, we kill two birds with one stone as the land restoration will not only provide habitat but make the area more aesthetically pleasing to the human eye. We want to give people something to see, talk about and spread the word generating support for The Caledonia Conservancy. The mixture of a small prairie area, wetland and forest will make this location as unique as it would be diverse. People can go from seeing monarchs scattered in the milkweed in the prairie at first glance, to then seeing the lovely wetland and its flowering plants, then finally take a walk or ride through the forest and see hummingbirds nesting in the oak. Another goal was to aid in providing a corridor from Walworth County to Racine County for cranes. The wetland would be a great habitat area for this threatened species. If the area is to be beautified and improved for humans, it should be made functional as habitat for the animals who need it most as well.

History

Caledonia Conservancy is in ownership of several properties, 6 of which were researched for this project. McCalvy Tabor Wood, Short Road Trail Head, Gordon Tabor Wood, Neighborhood Central Walk Robin's prairie and our most focused site, King's Corner, had

historical data as to what the properties were post European settlement. The Tabor Wood parcels were recorded as "Unknown Oak" forests by the Bordner map provided by our GIS research, which we used loosely as a reference site toward our oak forest restoration plans for King's Corner. Robin's prairie, Central Walk, Short Road Trail and King's Corner were all historically cleared cropland post settlement, King's Corner also serving as a pasture site for farmland.

King's Corner, our target parcel, had seen transformations through history, starting with the 1836 Public Land Survey field notes that we were able to locate through ArcGIS. Recorded vegetation included elm, beech, white ash, white & black oak, sugar maple and hickory trees. These recordings validate our theory that Tabor Woods and King's Corner were connected historically, due to the likeness of the vegetation that exists in Tabor Woods today, which is similar to the historical recordings of the King's Corner parcel. As mentioned, once settlers transformed the landscape, King's Corner was converted into agricultural land, cropland and pastureland. Throughout the 1900's, the land had been abandoned from it's farmland components, and had been left to grow into what it is today. From 1978-1999, aerial photos portray the distinct transformations, which are displayed on our poster, from a cleared, flat area of no vegetation to 1999, where patches of vegetation had begun to take to the emptied landscape. This makes for an interesting inventory of what is currently there, which presented itself to be a confused mixture of invasive species, wetland and forest vegetation.

Species Inventories, Focal Species, Soil

Currently, King's Corner is overrun with a large amount of buckthorn (*Rhamnus cathartica*), multiflora rose (*Rosa multiflora*), and dogwood (*Cornus alba*), which are mainly located in the woodland ecosystem. The area deemed as, pastureland, or potential prairie or wetland has an abundance of reed canary grass *(Phalaris arundinacea*), which is also considered an invader of wetter areas. These species have a negative impact on newly or established vegetation in King's Corner. The most common species of trees were the green ash, Scot's pine, juniper, ornamental pear, nannyberry, hawthorn and crab apple. In the wetland delineated areas, there were exemplar species of willow trees, which, once restored could be an attraction for visitors of the area. King's Corner is unique, in that, it has potential to have three healthy ecosystems that will promote the integration of rare or focal species. The focal species of the prairie section of King's Corner are pollinator species, in this case, insects. The two most

important species that should be considered in that respect are the bumblebee and the monarch butterfly. These are excellent species for restoration initiatives due to the positive impact they bring to prairieland plants, which are notorious for having low self-pollination rates. These insects are primary pollinators of both vascular and woody plants. Bumblebees and monarchs help increase the genetic diversity of those species through pollination. Milkweed is the primary food source for Monarchs at all stages of growth. The focal species to be considered for the wetland restoration component of this project are the Sandhill Crane and Wood Duck. Both of these species are iconic to Wisconsin wetlands and are often the most popular species when picturing a Wisconsin wetland. Sandhill cranes use Wisconsin wetland as breeding grounds. The marsh-like conditions of King's Corner wetlands would be a prime spot to observe the breeding of Sandhill cranes. Sandhill crane prefer wetland close to dry woodland as nesting grounds, leaving King's Corner to be a potential hotspot for that phenomena, attracting many tourists. A common local species to consider bringing to these wetlands would also be the sandpiper due to the proximity to the beaches of Lake Michigan. When considering woodland restoration, it would be wise to bring the large flowered trillium and white oak into King's Corner forests. Both species are historically known to the area and both species are great to consider due to their abilities to thrive in disturbed areas. When the removal of the invasive species takes place planting white oak would be a very smart idea due to its adaptability. White oaks would thrive in the mesic landscape of king's corner and would attract many diverse species such as hummingbirds. Large Flowered trillium would be great for the area due the plants interaction with newly grown forest and many of the insects discussed in the pollinator species of King's Corner. It promotes biodiversity and is a beautiful edition to any landscape. These focal species when implemented properly could can the entire landscape of King's Corner and promote an aesthetic diverse environment.

As mentioned, King's Corner had prime areas for wetland restoration, which are areas that of great concern for not only environmentalists, but as well as the government. Show in Figure 4, we can see a layer on this map outlining the area for potential wetland marked in ArcGIS from collected data. Figure 5 represents the mosaic of soil types inlaid over King's Corner, which can be classified by soil units which are defined by the USDA survey of soil classification of Racine and Kenosha. This information will be useful when choosing vegetation to plant in each restored unit.

Management Units:

The king's corner parcel is broken into three restoration units as depicted in in figure 1. These units are classified as the wetland unit, woodland unit, and prairie unit. The wetland unit boundaries were determined from the Wisconsin Wetland Inventory Geodatabase provided by the Wisconsin Department of Natural Resources (DNR, 2015). However, if localized wetland delineation boundaries are available for the Kings' corner parcel, they should be utilized as the boundaries for the wetland restoration unit. Otherwise, the proposed wetland restoration unit encompasses most of the central and southern portions of the parcel. The woodland restoration unit is located in the Northwestern portion of parcel, west of the parking lot and western boundary of the wetland unit. The Prairie Restoration Unit is located in the Northeastern portion of the parcel, east of the eastern edge of the wetland unit. Restoration plan recommendations have been designed and discussed below for each of the restoration units.

Wetland Unit:

According to the Wisconsin DNR's Wetland Inventory Geodatabase, the wetland restoration unit located on the King's Corner parcel is classified as a broad-leaved deciduous wetland (DNR, 2015). Moreover, the National Fish and Wildlife Service (FWS) states that red maple (*Acer rubrum*), American elm (*Ulmus americana)*, swamp white oak (*Quercus bicolor*), overcup oak (*Q. lyrata*), and basket oak (*Q. michauxii*) are among the expected dominant species (Cowardin, 1979). Among these species characteristic of a broad-leaved deciduous wetland are silver maple (*Acer saccharinum*), cottonwood (*Populus deltoides*), willows (*Salix sp.*), and *Viburnum dentatum*. In order to promote the growth of these species within the wetland unit of King's Corner, several strategies should be implemented.

Of primary concern within this unit is the presence of numerous dominating invasive species. More specifically, European buckthorn (*Rhamnus cathartica*), bella honeysuckle (*Lonicera x bella*), and multiflora rose (*Rosa Multiflora*). The removal and continual suppression of these species are of primary concern. Invasive species removal is most efficiently carried out by hiring a properly licensed restoration company to exterminate the invasive species. According to an online quote from Midwest Prairies LLC., buckthorn removal will cost a minimum of $1650 per acre for hand clearing and stump treatment. Another less effective management strategy for invasive species would be to organize volunteering events. However, without proper licensing, herbicide cannot be applied to the stumps and it would be difficult to

make a significant impact on the population of buckthorn present at King's Corner via this method alone. The alternative and most opportune restoration strategy for the forested wetland unit of King's Corner would be to clear-cut the entire area and manage for characteristic broad-leaved deciduous wetland species. This procedure could cost approximately $3,000 dollars per acre.

Another simple and cost-effective restoration effort that would produce relatively quick and charismatic results would be to purchase seed mix rated for wet, and spread it throughout the open portion of the wetland unit that comprises the units eastern half. Such a seed mix may be the Tall Sedge Meadow mix from Prairie Moon Nursery, of which the species are listed in Figure 2. This seed mix in particular is pollinator friendly and would cost approximately $1500 per acre.

Woodland Unit:

As discussed in the history section of this proposal, Kings Corner was historically classified as an Oak Hickory woodland dominated by American elm, beech, white ash, white & black oak, sugar maple and hickory trees. Therefore, the ideal restoration strategies to be implemented would aim to promote the regeneration of these species. The species of primary concern for an Oak Hickory woodland restoration are white oak (*Quercus alba*) and shagbark hickory (*Carya ovata*). In contributing to the restoration of the ever-depleting presence of Oak Hickory woodlands, the Caledonia Conservancy would be at the forefront of modern restorative efforts. However, due to the fragility of Oak Hickory woodland restoration projects, we recommend conducting several experiments with differing variables on plots within the King's Corner woodland unit in order to gain an understanding of the variables that will contribute greatest to local white oak regeneration. Once a firm understanding of what is going to contribute to white oak regeneration is gained, these variables may be adapted to promote white oak regeneration across the entirety of the woodland unit. However, invasive species should be exterminated and suppressed via the same remediation procedures proposed in the wetland restoration plan prior to the broad application of regenerative efforts.

White Oak regeneration plot 1:

In order to gauge base level success of white oak generation, a plot should be designated without altering any variables. Oak saplings should be transplanted into a plot that has been clear cut with disturbed soil and placed 10 feet apart in rows that are 8 feet apart (Dickmann,

1997). Ideally the plot would be fenced off to prevent herbivory and managed to prevent invasion from invasive species. The plot may vary in size based on discretion, but it is proposed that 10 saplings be planted in the manner discussed per plot. Initial height and diameter should be measured and recorded for each tree, and then remeasured biannually in order gauge the trees growth rate.

White Oak regeneration plot 2:

It is proposed that a plot be designated to test the effect of introduced soil on white oak regeneration. Enough topsoil to cover the plots surface area would be transplanted from a designated area of Tabor Woods and placed in a plot designed in the same manner as plot 1. The soil would then be mixed in with the native topsoil and white oak saplings would be dispersed and measured in the same manner as in plot 1. The hypothesis behind this proposed experimental plot is founded on emerging research on the soil ecosystems effect on plant production and fertility. It is expected that because Tabor Woods is already a successful stand of Oak Hickory woodland, that the soils biological community of bacteria and fungi will support white oak regeneration.

White Oak regeneration plot 3:

According to a study published regarding oak regeneration beneath stands of scots pine (*Pinus sylvestris*), successful sapling generation under such stands occur while beneath the canopy or in areas exposed by gaps in canopy (Dobrowolska, 2006). However, for optimal oak regeneration, the study suggests that areas with the greatest gaps in canopy should be targeted (Dobrowolska, 2006). Therefore, the portion of the King's Corner Woodland Unit that consists primarily of scots pine located along five mile road and just west of center poses a promising opportunity for white oak regeneration. It is proposed that white oak saplings be planted throughout the stand of scots pine no closer than 8 feet apart and monitored in accord with experimental plots 1 and 2. Moreover, if resources are limited, it is suggested that the available saplings be planted in areas of greatest canopy exposure within the scots pine stand.

Prairie Unit:

Restoration of the prairie unit of King's Corner promises a cost effective and charismatic addition to the local ecosystem and the Caledonia Conservancy. This portion of the parcel is located along highway 31 and is currently characteristic of an abandoned field that has not yet become dominated by forest. This manifests a great opportunity for a successful prairie

restoration that would not only contribute to regenerating a depleting habitat necessary for the livelihood of our beloved pollinators such as bees and hummingbirds but would also attract public attention to the Caledonia Conservancy through its attractive beauty.

Restoring this land into a prairie may be as simple as purchasing seed and spreading it equally across the landscape. Prairie seed mixes such as Tall Grass Prairie seed mix from Prairie Moon Nursery may be purchased for approximately $1700 per acre. If premium seed mixes such as this are out of budget, there are more affordable seed mixes available through Prairie Moon Nursery such as their Short Grass Inexpensive Prairie seed mix which costs approximately $600 per acre. A comparison of species lists for both of these seed mixes is depicted in Figure 3. For optimal productivity, it is proposed that a thin layer of straw held down by staked netting or mulch lain over the seed to prevent loss of seed through surface runoff and to prevent the out-competition of prairie seed by invasive species. Moreover, if the proposed invasive remediation procedure of clear cutting is undertaken, the mulch derived from that process may be utilized within the prairie restoration.

Continual monitoring and management is of utmost importance following any of the restorative efforts proposed in this document, but it is especially important for the prairie restoration. Prairies require frequent disturbance to suppress invasion and prompt native growth. The most effective applied disturbance is through prescribed burning. According to a survey conducted by the Nation Forest Service, the average cost for prescribed natural burning of grassland was approximately $60 per acre (Cleaves, 1999). Another less effective disturbance method would be to mow the entirety of the prairie. Disturbances such as these should be conducted annually every fall for the first few years of the prairie restoration, after which the disturbance frequency may be switch to biannually.

Successful forest restoration will rely on frequent upkeep, such as pruning young trees, protecting young saplings from browse and controlling invasive species, which will increase competition to desired species.

Funding

Unfortunately, this is quite a project that will not get done without funding. On the bright side, there are many ways to obtain funding. A very exciting and important point is that on The Caledonia Conservancy website list of sponsors, SC Johnson is listed. This is obviously a major

company known to fund various projects for the benefit of the citizens of Racine County. Any Racine resident can tell you of their reputation as being extremely generous. Because they receive so much publicity for their contributions to projects in Racine, they may not only provide a significant amount of funding but also spread the word of this excellent, diverse location. For these reasons, SC Johnson should be the first contributor to approach for a donation. It should be kept in mind that while they are a major sponsor, they are certainly not the only sponsor of The Caledonia Conservancy. It is important to keep reaching out to current sponsors and other potential future sponsors. Grant application is another great, feasible option of gathering the means to undertake a project of this magnitude. While there are many grants available, we have focused on three in particular. The first grant program we would like to call attention to is the Knowles-Nelson Stewardship NCO. Eligible applicants for this program are non-profit conservation organizations, much like The Caledonia Conservancy. We believe King's Corner fits the best under the habitat and natural area subprogram. However, all of the subprograms are a possible fit for the area given its diversity. There are even grant specialists available through the DNR to help discuss requirements. However, that is not only a resource available for this grant in particular, but any grant through the DNR's website, which is all three of the programs we suggest. This resource of having a DNR representative available makes one less hoop to jump through in this project. The Wisconsin Wetland Conservation Trust is another great, viable program option for this project as they offer plenty of standard grants easier to obtain than many other grants. Due to the wetland on the property of King's Corner, The Caledonia Conservancy should be eligible for this program. Urban forestry grants are another option on the DNR website, although seemingly more competitive than the other two programs. That is not to be discouraging though, as the large amount of dead ash and random pine make King's Corner a great candidate for a forestry grant. The DNR wants to see more properties like Tabor Woods, which is the ultimate goal of this restoration. This should be worked to our advantage. Based on the website, a startup grant should be much easier to obtain through this program especially considering there is not much more of a start than King's Corner. The CC is quite literally starting from scratch with this property.

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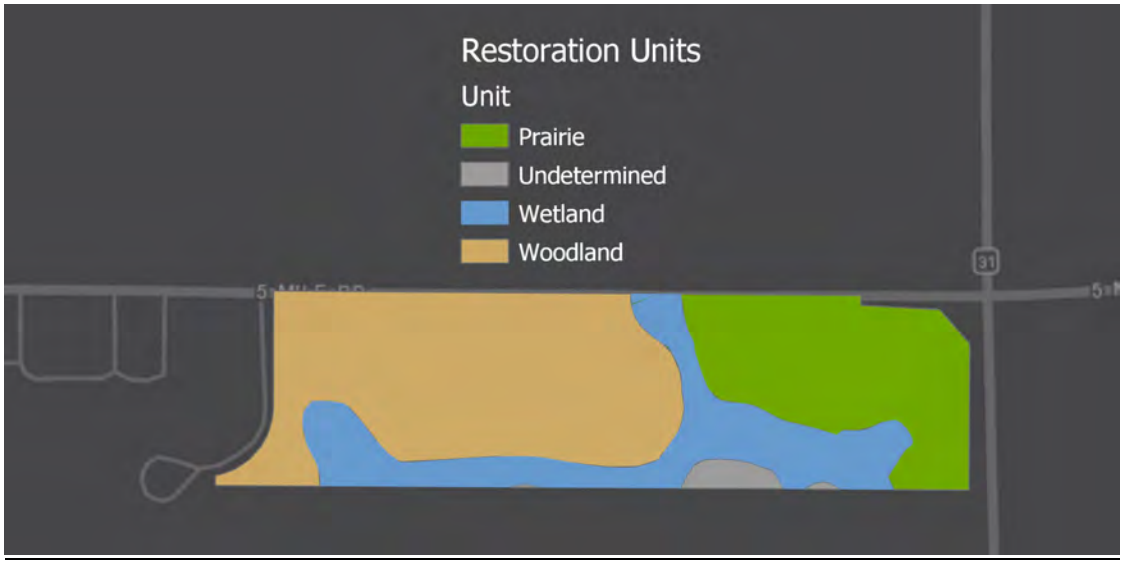
Figures

Figure 1:



This figure shows the proposed restoration units within the King's Corner parcel.

Figure 2:

TALL SEDGE MEADOW SEED MIX

by Prairie Moon Nursery®

8.98 lbs per acre | 283 Seeds per sq/ft

(PHOTOS OF PLANTS IN THIS SEED MIX)

WILDFLOWERS	
Botanical Name (Common Name)	**% by wt.**
Acorus americanus (Sweet Flag)	0.70
Alisma subcordatum (Mud Plantain)	1.39
Ammannia coccinea (Scarlet Toothcup)	0.70
Asclepias incarnata (Rose Milkweed)	5.57
Bidens aristosa (Swamp Marigold)	2.09
Boltonia asteroides (False Aster)	0.91
Aster umbellatus (Flat-Topped Aster)	0.61
Eupatorium maculatum (Joe Pye Weed)	0.70
Eupatorium perfoliatum (Boneset)	0.70
Helenium autumnale (Sneezeweed)	1.39
Hibiscus laevis (Rose Mallow)	2.78
Iris versicolor (Northern Blue Flag)	3.48
Liatris pycnostachya (Prairie Blazing Star)	7.58
Lobelia cardinalis (Cardinal Flower)	0.76
Lobelia siphilitica (Great Blue Lobelia)	1.74
Mimulus ringens (Monkey Flower)	0.30
Penthorum sedoides (Ditch Stonecrop)	1.39
Physostegia virginiana (Obedient Plant)	1.46
Pycnanthemum virginianum (Mountain Mint)	1.04
Sagittaria latifolia (Common Arrowhead)	0.76
Solidago graminifolia (Grass-leaved Goldenrod)	1.39
Solidago riddellii (Riddell's Goldenrod)	0.61
Sparganium eurycarpum (Great Bur Reed)	11.22
Symphyotrichum novae-angliae (New England Aster)	1.21
Verbena hastata (Blue Vervain)	3.03
Vernonia fasciculata (Common Ironweed)	1.52
Total of WILDFLOWERS	55.01 %

GRASSES, SEDGES & RUSHES	
Botanical Name (Common Name)	**% by wt.**
Bromus ciliatus (Fringed Brome) PLS	20.60
Carex comosa (Bristly Sedge)	1.39
Carex crinita (Fringed Sedge)	7.58
Carex hystericina (Porcupine Sedge)	3.03
Carex stipata (Common Fox Sedge)	4.18
Carex vulpinoidea (Brown Fox Sedge)	2.09
Glyceria grandis (Reed Manna Grass)	2.09
Scirpus atrovirens (Dark green Bulrush)	0.70
Scirpus cyperinus (Wool Grass)	0.30
Scirpus validus (Great Bulrush)	1.52
Spartina pectinata (Cord Grass) PLS	1.52
Totals of GRASSES, SEDGES & RUSHES	44.99 %

(PHOTOS OF PLANTS IN THIS SEED MIX)

Last updated 8/15/19

Figure 3:

TALLGRASS PRAIRIE SEED MIX FOR MEDIUM SOILS

by Prairie Moon® Nursery

9.91 lbs per acre | 131 Seeds per sq/ft

WILDFLOWERS Botanical Name (Common Name)	% by wt.
Asclepias incarnata (Rose Milkweed)	1.26
Astragalus canadensis (Canada Milk Vetch)	0.63
Baptisia alba (White Wild Indigo)	1.26
Dalea purpurea (Purple Prairie Clover)	2.75
Echinacea pallida (Pale Purple Coneflower)	3.15
Echinacea purpurea (Purple Coneflower)	3.15
Eryngium yuccifolium (Rattlesnake Master)	5.04
Euthamia graminifolia (Grass-leaved Goldenrod)	0.63
Gaura biennis (Biennial Gaura)	1.37
Gentiana flavida (Cream Gentian)	0.95
Heliopsis helianthoides (Early Sunflower)	0.95
Liatris pycnostachya (Prairie Blazing Star)	6.30
Monarda fistulosa (Wild Bergamot)	1.26
Oligoneuron rigidum (Stiff Goldenrod)	1.37
Parthenium integrifolium (Wild Quinine)	3.78
Penstemon digitalis (Foxglove Beardtongue)	1.37
Ratibida pinnata (Yellow Coneflower)	1.37
Rudbeckia hirta (Black-eyed Susan)	5.04
Rudbeckia subtomentosa (Sweet Black-eyed Susan)	0.63
Rudbeckia triloba (Brown-eyed Susan)	0.63
Silphium laciniatum (Compass Plant)	0.63
Silphium terebinthinaceum (Prairie Dock)	0.63
Symphyotrichum laeve (Smooth Blue Aster)	1.37
Symphyotrichum novae-angliae (New England Aster)	1.10
Verbena hastata (Blue Vervain)	0.63
Veronicastrum virginicum (Culver's Root)	0.63
Zizia aurea (Golden Alexanders)	2.52
Total of WILDFLOWERS	50.43 %

GRASSES, SEDGES & RUSHES Botanical Name (Common Name)	% by wt.
Andropogon gerardii (Big Bluestem) PLS	13.73
Elymus canadensis (Canada Wild Rye) PLS	10.09
Muhlenbergia mexicana (Leafy Satin Grass)	3.78
Panicum virgatum (Switch Grass) PLS	1.37
Sorghastrum nutans (Indian Grass) PLS	20.60
Totals of GRASSES, SEDGES & RUSHES :	49.57 %

Last updated 11/13/18

SHORTGRASS INEXPENSIVE PRAIRIE SEED MIX

by Prairie Moon Nursery®

11.48 lbs per acre | 86 seeds per sq/ft

(PHOTOS OF PLANTS IN THIS SEED MIX)

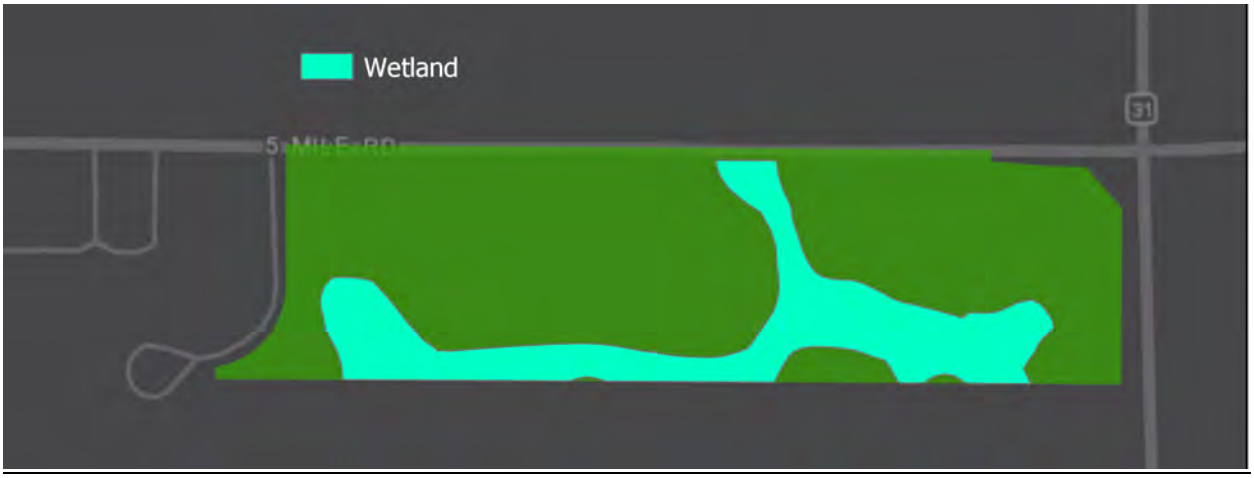
WILDFLOWERS Botanical Name (Common Name)	% by wt.
Allium cernuum (Nodding Onion)	0.54
Asclepias tuberosa (Butterfly Weed)	1.09
Astragalus canadensis (Canada Milk Vetch)	0.41
Baptisia alba (White Wild Indigo)	1.09
Chamaecrista fasciculata (Partridge Pea)	8.71
Coreopsis lanceolata (Lance-leaf Coreopsis)	4.36
Dalea candida (White Prairie Clover)	3.27
Dalea purpurea (Purple Prairie Clover)	4.36
Echinacea pallida (Pale Purple Coneflower)	2.18
Echinacea purpurea (Purple Coneflower)	1.09
Heliopsis helianthoides (Early Sunflower)	2.18
Lespedeza capitata (Round-headed Bush Clover)	1.09
Penstemon digitalis (Foxglove Beardtongue)	0.82
Rudbeckia hirta (Black-eyed Susan)	4.36
Senna hebecarpa (Wild Senna)	2.18
Symphyotrichum laeve (Smooth Blue Aster)	0.27
Verbena stricta (Hoary Vervain)	1.09
Total of WILDFLOWERS	39.61 %

GRASSES, SEDGES & RUSHES Botanical Name (Common Name)	% by wt.
Bouteloua curtipendula (Side-oats Grama) PLS	26.14
Bouteloua gracilis (Blue Grama) PLS	8.71
Muhlenbergia mexicana (Leafy Satin Grass)	1.36
Schyzachyrium scoparium (Little Bluestem) PLS	20.91
Sporobolus compositus (Rough Dropseed)	3.27
Totals of GRASSES, SEDGES & RUSHES :	60.39 %

(PHOTOS OF PLANTS IN THIS SEED MIX)

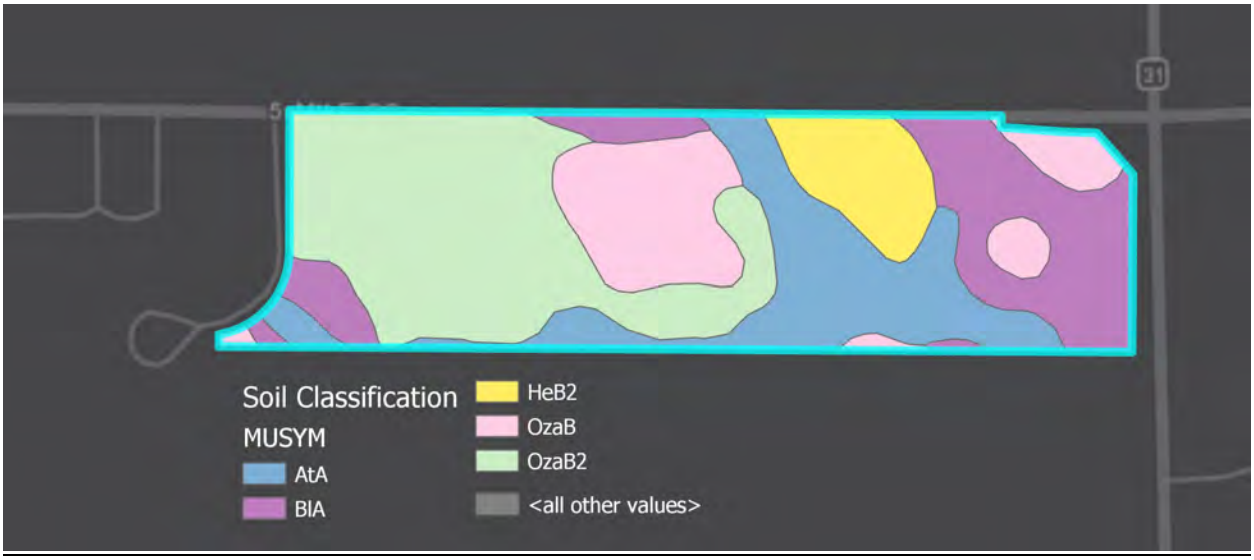
Last updated 11/13/18

Figure 4:



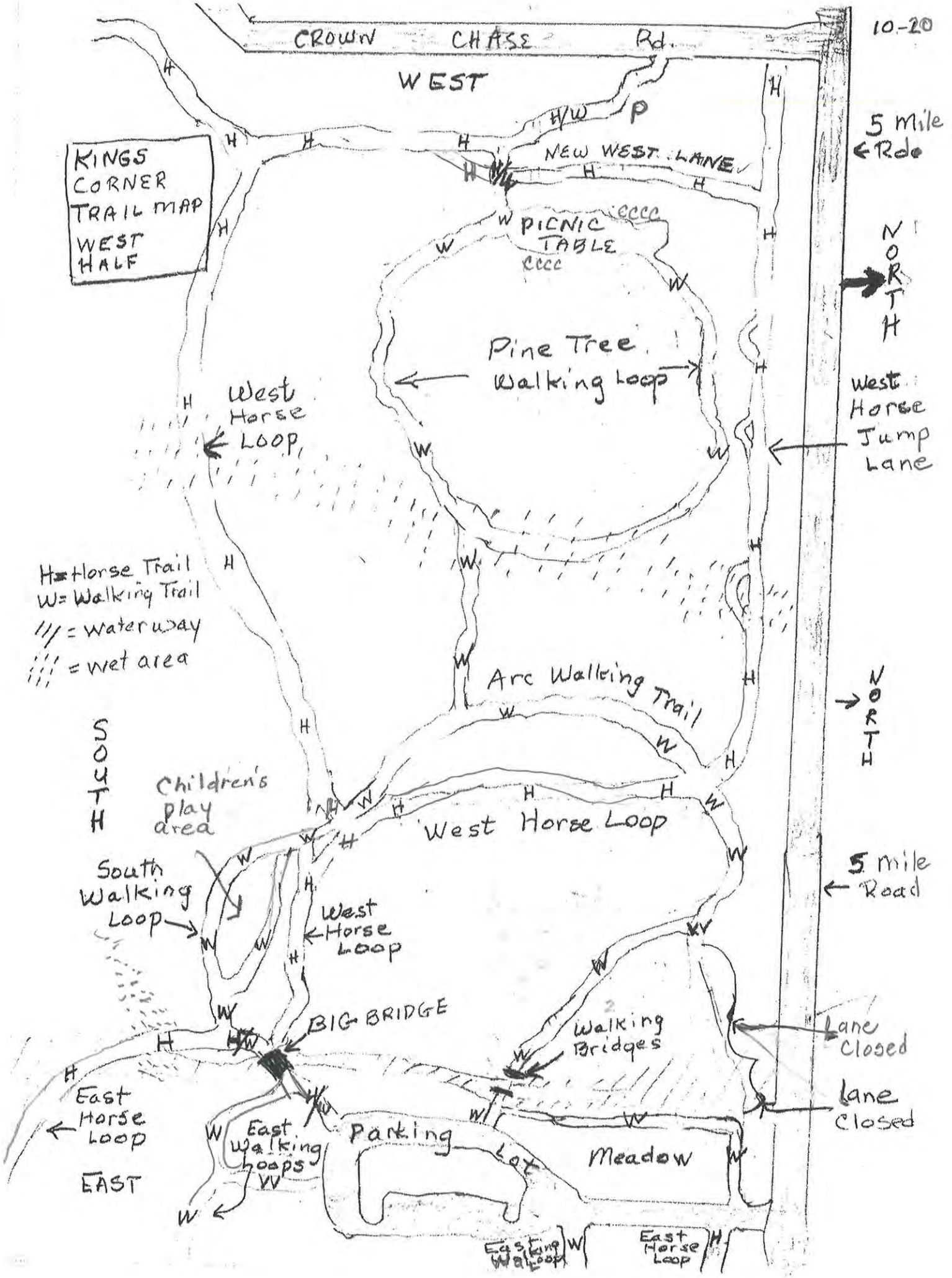
This figure shows the wetland area of King's Corner according to to the Wisconsin Wetland Inventory Geodatabase.

Figure 5:



This figure represents a mosaic of soil types of King's Corner. Soil units can be classified by the USDA soil survey of Kenosha and Racine.
https://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/wisconsin/kenosharacineWI1970/kenosharacineWI1970.pdf


EAST END OF KING'S CORNER
Trees
Big Bridge
TM
Double Bridge
WEST
TM = Tollaksen Memorial Area
W = Walking Trail
H = Horse Trail
P = Parking
CCC = Child PLAY SPOT
Sh = Future Shelter
NORTH
= water Swales in wet weather
Trailer Parking
Kiosk
Sh
Meadow
EAST HORSE TRAIL LOOP
Grass
Car Parking
OVERFLOW TRAILER PARKING
Shrubs
EAST WALKING TRAILS
wet land
EAST HORSE TRAIL LOOP
CCCC
GRASS LANDS
EAST WALKING TRAILS
Willows
PLANTED PRAIRIE
SOUTH
Dog Play Area
Grass PARKING
WILD PRAIRIE
KC SIGN
EAST
HWY 31
KING'S CORNER Trail Map East Half
5 mile Rd


10-20
CROWN CHASE Rd.
WEST
KINGS CORNER TRAIL MAP WEST HALF
NEW WEST LANE
5 Mile Rde
PICNIC TABLE
NORTH
Pine Tree Walking Loop
West Horse Loop
West Horse Jump Lane
H=Horse Trail
W=Walking Trail
/// = Waterway
::: = wet area
Arc Walking Trail
NORTH
SOUTH
Children's Play area
West Horse Loop
South Walking Loop
West Horse Loop
5 mile Road
BIG BRIDGE
Walking Bridges
Lane Closed
Lane Closed
East Horse Loop
EAST
East Walking Loops
Parking Lot
Meadow
East Walking Loop
East Horse Loop

Ambassador Landscapes: Connecting people to the land

Part Two:
Prioritizing, Planning and
Designing
Ambassador Landscapes
March 26, 2013

Call-in number:
712-432-0111
64-80-53#

Judy Anderson, Community Consultants
andersonj@nycap.rr.com
518-758-7226

Recap:
Why do we need Ambassador Landscapes?

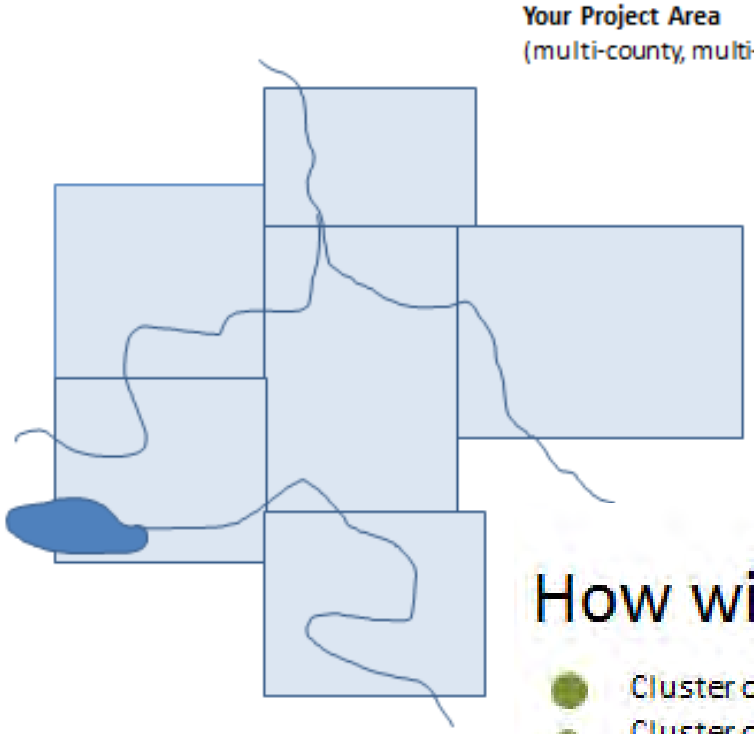
- Who will support conservation in 20 years?
- How will conservation be relevant—meaning—how will it enrich the average person's life in a tangible way?

…The only way to protect wilderness in the long run is to build a constituency for it, to grow the number of people who revel in camping under the stars...

–Nicolas Kristof, The New York Times, 2011

Key elements

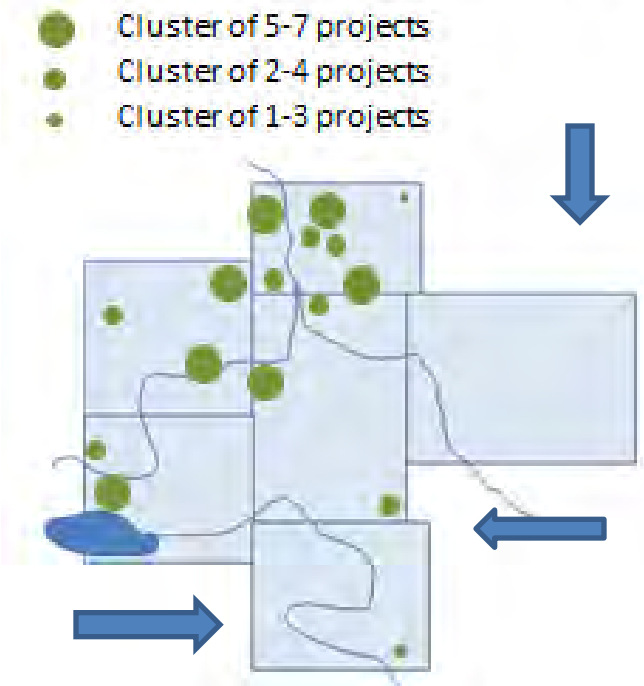
- Bring conservation to people…keep it “close to home”
- Road frontage, easy parking
- Open and shaded aspects
- Space for gathering, periodically
- Safe for kids, people NEW to conservation lands



Proximity Matters…

What "stories" are you telling with your land protection decisions?

How will conservation matter to "me"?



Where are the people **now**?
Where will they **be**?

Its job is connect people to the land… build a sense of community

- Bring people toward fragile areas…so they love them
- Offer programs throughout the year
- Look for ways to provide memories
- Allow them to create things…

Choose the right site for the right purpose

- What are you trying to do?
- What are the site's constraints?
- What could be vs. what is there now?
- How to keep is simple?

Concept Plan:

Natural Area

Warming Hut, gathering area (currently little barn)

Demonstration Gardens: Butterfly, native plants, kid-friendly

Seasonal lodging for interns-greater capacity to connect community to land, stewardship, education.

Gravel parking area, does not impact setting or house, safe "road-cut", allows for trail access too.

Grassed gathering area, for programming and events. Views of the water.

Overlook, picnic areas. Places for kids, families to come; school classes to go and use as a base.

Trees planted to create buffer to neighbor's driveway. Suggest Oaks.

Mowed grass paths

Concept Plan: [redacted] Natural Area
Key elements, views

05-01-2012

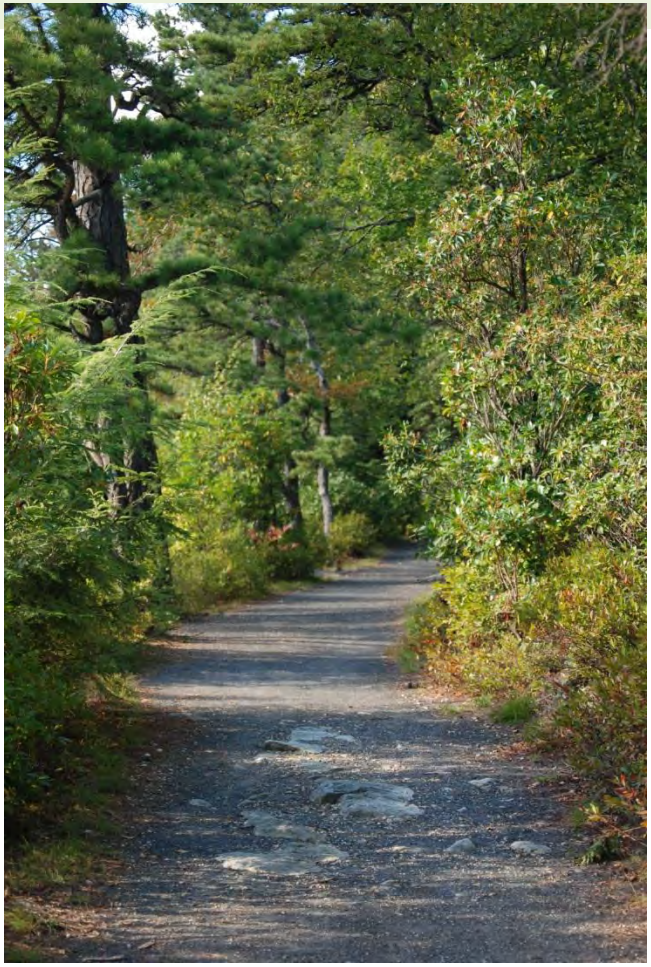
Manage for your values, their values

- Are you the “no” organization?
- Can you lead, rather than reprimand?
- How can you encourage greater appreciation?
- How do your programs interface?

The design is as important as the “what”

- Who will use the land, how?
- Programs?
- Events?
- Family recreation?

How are the needs different?
Can one Ambassador Landscape meet the needs?



Adding Community Relevance into your Project Selection Criteria

- What would you look for?
- What would you consider a success?
- What would take “vision”?
- What would be “obvious”?

What proactive cultivation work would you need to do, if any?

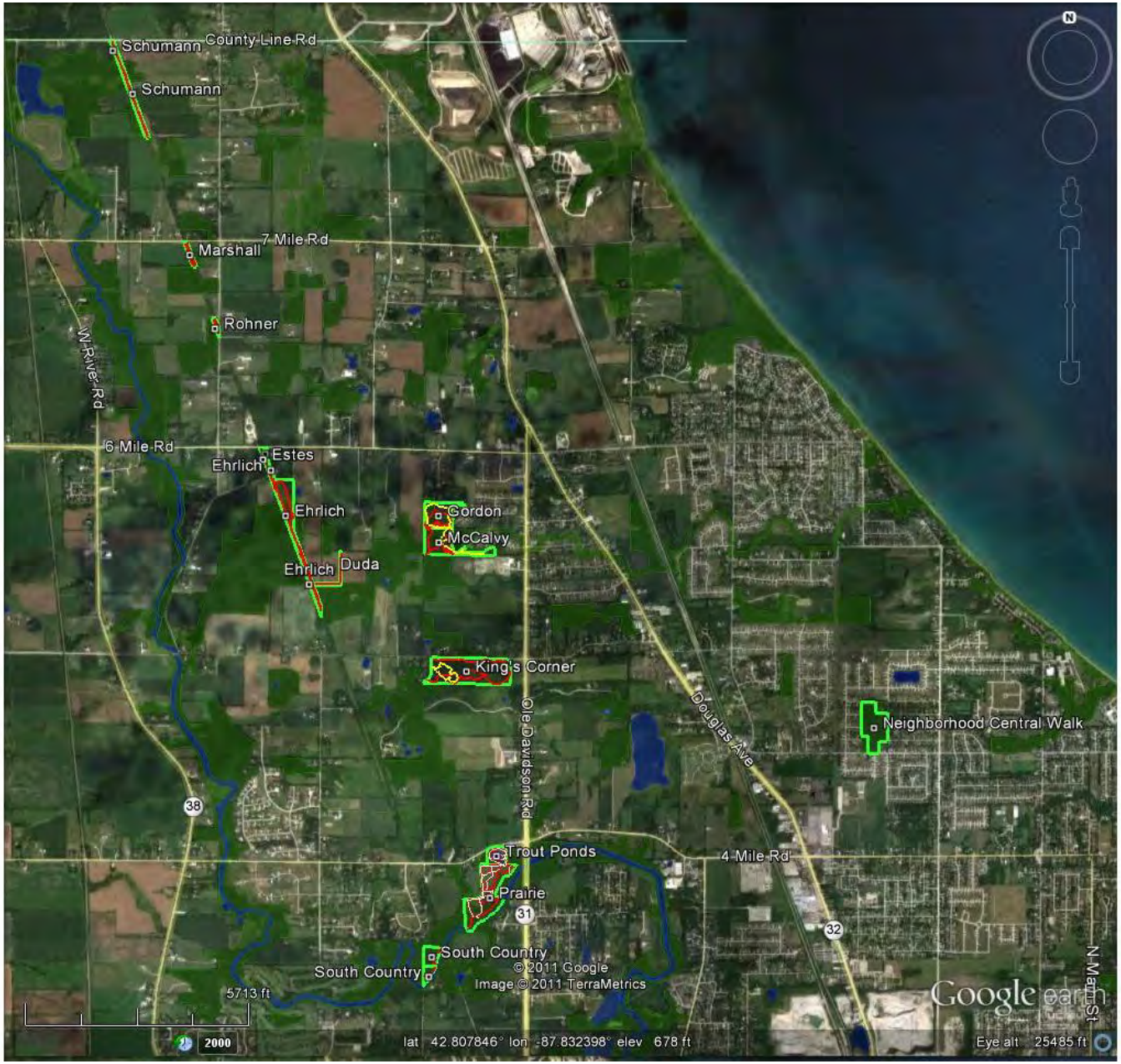
What do people want?

- Conservation next to schools, daycare?
- Parks, trails?
- Places to walk and play with dogs?
- Water access?
- Food? Farmer's markets?
- Community gardens?
- Fly kites? See birds?

Will your brand be "responsive"?

Take an inventory:
What landscapes does a community have?

1. People need emotional connections to <u>different</u> landscapes
2. Create a sense of community pride
3. Bring the landscapes to "them"
4. Envision what is possible



Vision:

- Need
- Partners
- Underserved
- Opportunity
- Connections
- Passion
- New-passion

Organizational Impact:

What pace?
For whom?
What legacy?
For what change?
With whom?

Today: A starting point, using King's Corner

Ambassador Landscapes:

Whom are you serving? Who could you be serving?
What will conservation in perpetuity mean?

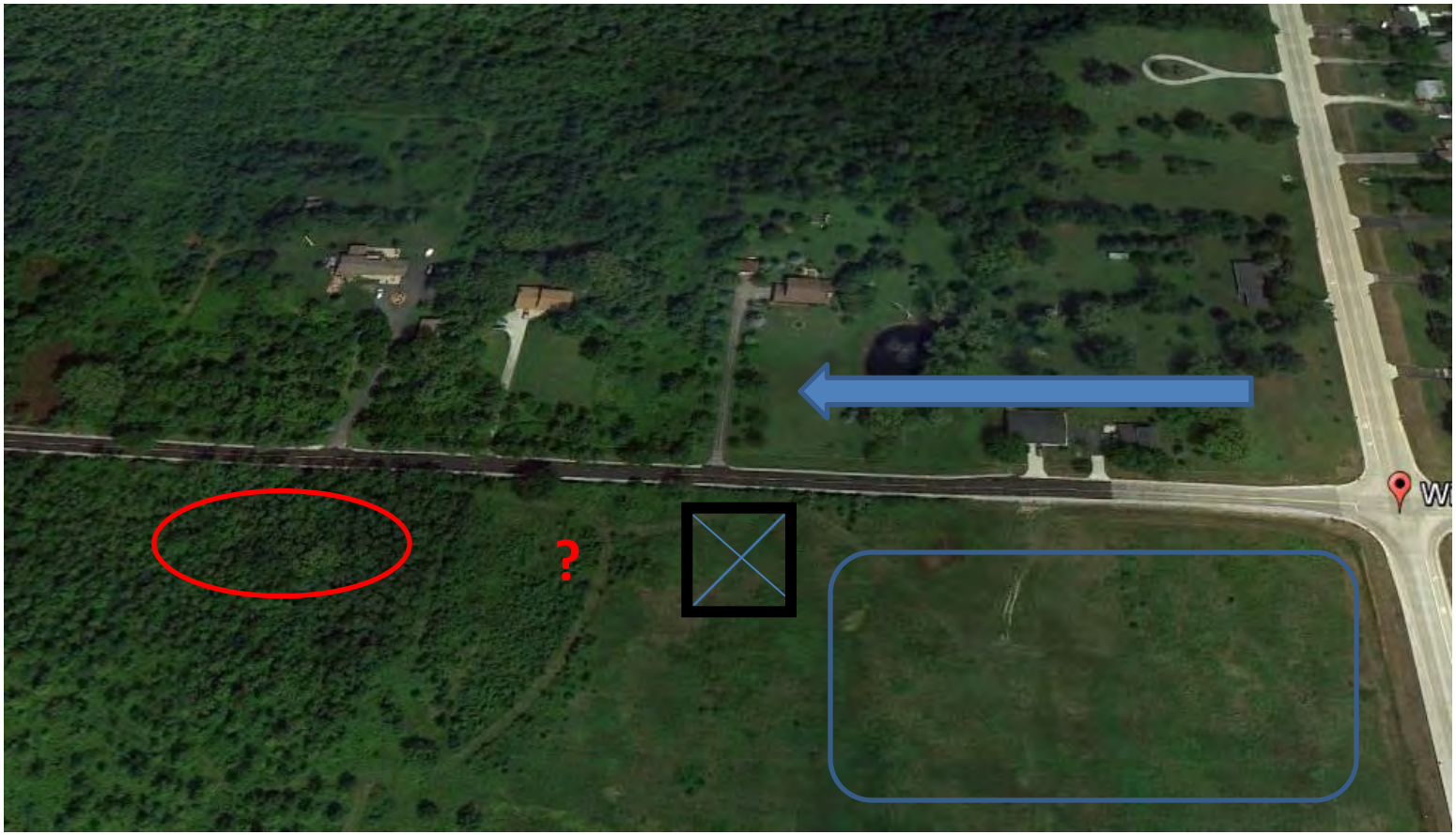
Context of King's Corner: Caledonia Conservancy

Understand the context of an Ambassador Landscape: micro-macro

1. Roads, access
2. Neighbors, boundaries
3. Opportunities for future conservation
4. Diversity of experience

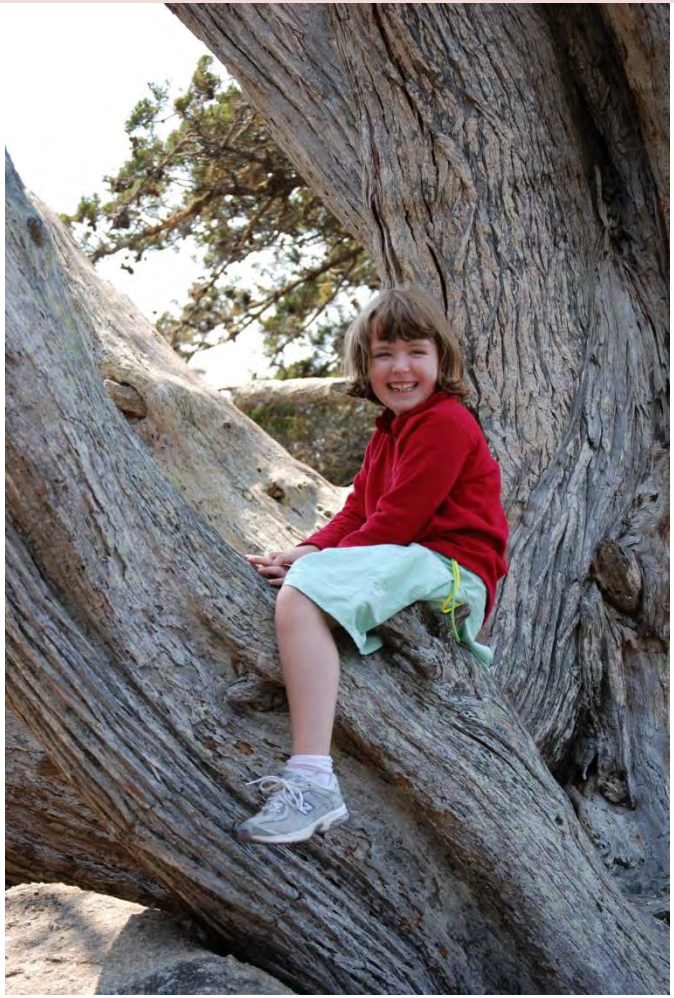
Neighbor-friendly planning:

1. Try and respect their views
2. Design so as not to encourage trespass
3. Avoid locating trails on boundaries
4. Consider safety of roads, create “defensible boundaries”.



What do you need to consider?

- Family-friendly space
- Tick concerns
  (trail design, gathering areas)
- Safety related to “scary people”
- “Way finding”—do people know where they are?
- “I’m bored”… design for interest of kids



Planning for basic improvements

- What is around the area?
- What would be compatible, and low maintenance?

What will it “feel” like? Trails

What is the character of the trails? How will they:

a. Feel welcoming to new people?
b. Capture interest year-round?
c. Work for people of all ages?
d. Inspire new “seeing” and understanding?
e. Foster greater connections with people?

Infrastructure:
Keep it simple

What tone are you establishing?

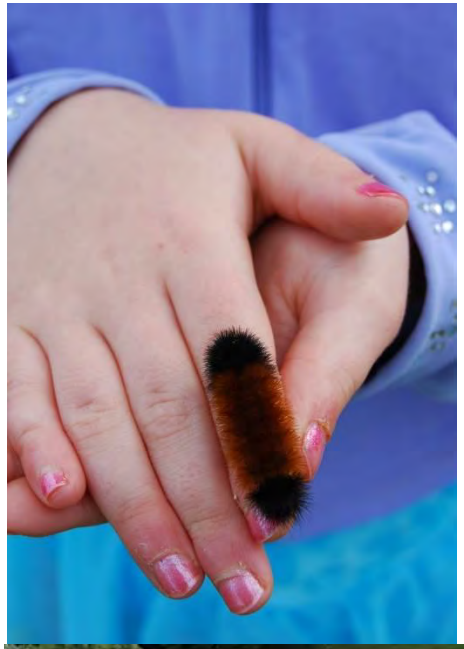
Upkeep--critical

- Trails, infrastructure need to build trust
- Easy to maintain, low-cost to maintain
- Built with recognition that kids get “bored”

Family-friendly spaces:

- Mowed or looks safe and inviting-easy to maintain
- Not too hot in the summer
- Variety of experiences

Think about uses, audiences



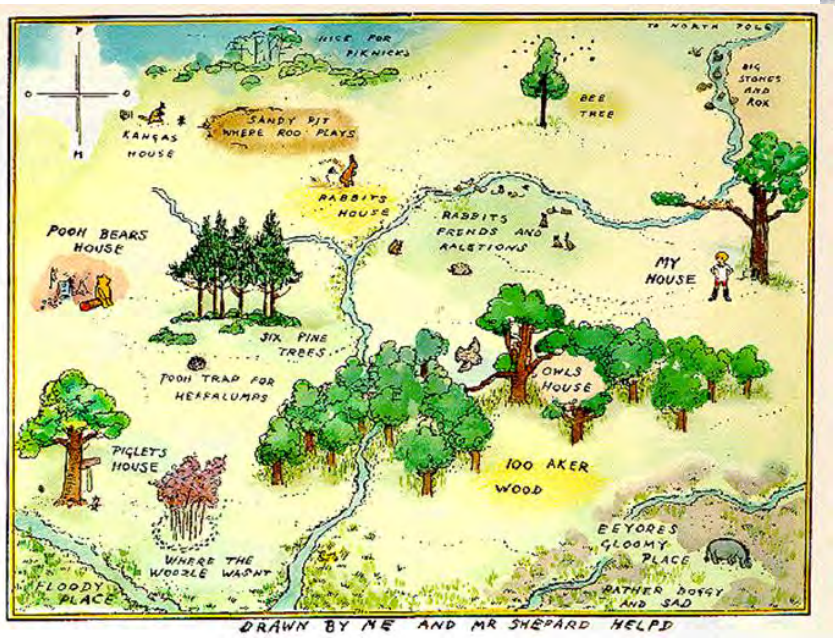
What uses will you prioritize, where?

- Ambassador landscape, connecting new people to the land.
- Continuing to connect kids and families (extension of the educational programs?)
- School trips? Buses?
- Different lands, different uses

Building Trust: How will you institutionalize this?

- Home
- Donate
- News & Events
- About Us
- Contact Us
- How to Find Us
- Our Equestrian Community
- Annual Poker Ride
- Gallery
- Links
- Stewardship Committee
- School to Nature
- Preservation
- Outreach

Where can I go?
Am I important?
Am I welcome?



Often small properties can't be all things to all users…

Given that you are a land trust that has a horse legacy, but is not an equine conservancy…

- Where will horses be able to go?
- Where will there be non-horse properties and why?
- Logical, thoughtful, strategic decisions.

Build a budget, phase your vision

- **Phase One: {which is phased}**
  What you need for a good experience.

a. Parking area, road safety
b. Kiosk, basic info in kiosk-trail map
c. Well marked trails
d. Entrance sign
e. Website featuring it
f. Simple upkeep plan

Develop the fundraising plan, momentum

1. What is the vision—what is the need?
2. Who are you serving?
3. So What, Who Cares?
4. Why is this exciting to ME?
5. Is there something specific I can help with?

Start from the “inside out”

- Create the simple design (phase one, other phases if needed).
- Get the trails in shape, mark them
- Build the kiosk and entrance sign parts—don’t install yet
- Create the maps

Phasing improvements

- Finalize bids, work order for parking area
- Install road fencing
- Mow trails, etc.—get ready
- Last: Install parking area and entrance sign, after Kiosk, etc.
- [install benches, etc. as possible]

Phase Two…as needed

Summary and Questions?

- What resonated?
- What do you need more clarity on?
- What are your next steps?
- How can I help?

Wetland Delineation Report

Kings Corner Property, 5-Mile Rd & STH 31

Village of Caledonia, Racine County, Wisconsin

RASN Project No. 1150298

October 27th, 2015

Prepared by:

Heather Patti, PWS
Ecologist/Project Manager
R.A. Smith National, Inc.

Prepared for:

Caledonia Conservancy
PO Box 044714
Racine, WI 53404-7015

16745 West Bluemound Road, Brookfield, Wisconsin 53005
(262) 781-1000

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Appendices

R.A. Smith National
Beyond Surveying and Engineering

October 27th, 2015

INTRODUCTION

R.A. Smith National, Inc. (RASN) is pleased to provide this Wetland Delineation Report for the approximately 35.13-acre "Kings Corner" property located southwest of the STH 31 (Green Bay Rd) and Five Mile Road intersection the Village of Caledonia, Racine County, Wisconsin (Figure 1). The Study Area is more specifically located in the NE ¼ of Section 24, Township 4 North, Range 22 East. The delineation was completed at the request of the Caledonia Conservancy.

The purpose of the wetland delineation was to identify the proximity and extent of wetlands to assess the potential for a future park development project. One (1) wetland, hereby referred to as "W-1", was identified within the Study Area (Appendix 1, Figure 2). The total acreage of W-1 within the Study Area is 9.03 acres. The wetland is associated with an intermittent tributary that flows easterly, then turns southerly and ultimately empties into the Root River. This delineation is presented here in terms of qualifications, methodology, results, and conclusions.

STATEMENT OF QUALIFICATIONS

Ms. Heather Patti, PWS and Ecologist with RASN, was the technical lead and author on this delineation project. Heather earned a Masters Degree in Botany and a minor in Ecology from North Carolina State University. Ms. Patti is experienced with a variety of aspects of ecological restoration, including wetland, mixed hardwood, and prairie restoration. She provides over 15 years of experience in wetland delineation, assessment, and mitigation. Ms. Patti attended the Basic & Advanced Wetland Delineation course offered by UW-LaCrosse in 2005 & 2013, became a WDNR Assured Wetland Delineator in 2009, and attended the Hydric Soil Identification Course offered by UW-LaCrosse in 2011.

WETLAND DELINEATION METHODOLOGY

The wetland delineation consisted of a review of available maps and information followed by a site visit to document field conditions. The presence and absence of hydrophytic vegetation, wetland hydrology, and hydric soil indicators were documented using methodology defined in the *US Army Corps of Engineers* (USACE) *1987 Wetland Delineation Manual, Regional Supplement to the 1987 Corps of Engineers Wetland Delineation Manual: Midwest Region* (Midwest Supplement) (USACE ERDC, 2010) and *Guidance for Submittal of Delineation Reports to the St. Paul District Army Corps of Engineers and the Wisconsin Department of Natural Resources* (USACE St. Paul District, 2015). See References section for a complete list of guidance and sources utilized.

16745 W. Bluemound Rd., Suite 200 • Brookfield, WI 53005 • (262) 781-1000 • Fax (262) 781-8466
Appleton, WI • Madison, WI • Naperville, IL • Orange County, CA • Pittsburgh, PA • rasmithnational.com

Vegetation
At the sample plots, herbaceous, shrub/sapling, tree and vine strata were typically measured using 5-foot, 15-foot and 30-foot radius plots, respectively. However, plot sizes were sometimes adjusted to fit the plant community. Percent cover was visually estimated within the plots and dominant species were determined by applying the 50/20 rule and/or Prevalence Index. *The National Wetland Plant List: 2013 wetland ratings* (Lichvar, 2013) was used to determine the wetland indicator status of observed vegetation.

Hydrology
The nearest available Natural Resource Conservation Service (NRCS) WETS Table and the National Atmospheric and Oceanic Organization (NOAA) Advanced Hydrologic Prediction Service were analyzed to determine the antecedent hydrologic condition of the Study Area. Inundation, water table and/or saturation were measured at the sample plots, if present. Soil pits were generally left open for 15-30 minutes prior to measurement to allow for the normalization of water level. Primary and secondary indicators of wetland hydrology were investigated and if present were noted on the data sheets.

Soils
At the sample plots, a soil pit was excavated to a depth of at least 20 inches, where possible. If greater than a few inches of inundation is present, the soil profile is usually unable to be observed. The color and texture of the soil matrix and associated mottling was recorded for each observed soil layer within the pit. The Munsell Soil Color Book was used to determine the color of observed moist soils. The soil was analyzed for hydric soil characteristics and, if met, hydric soil(s) was/were indicated on the data sheets.

Sources Reviewed
The United States Geological Survey (USGS) Topographic Map (Appendix 1, Figure 1), a two-foot contour map (Appendix 1, Figure 2), the WDNR Surface Water Data Viewer Map which includes the NRCS Soil Survey and Wisconsin Wetland Inventory (WWI) (Appendix 1, Figure 3), aerial photos from the years 2000, 2005, and 2010 (Appendix 1, Figures 4A-C), and a 90-Day Departure from Normal Precipitation Map (Appendix 1, Figure 5), were reviewed prior to the wetland delineation in order to gain familiarity with the site's topography, wetland history, soils, and past land uses.

RESULTS

Existing Environmental Mapping
The USGS topographic map shows the general location of the Study Area and shows that the nearest mapped waterway flows through the Study Area (Appendix 1, Figure 1). As shown on the two-foot contour map (Appendix 1, Figure 4C), the land within the Study Area is gently rolling and ranges in elevation from 680 to 717 feet above mean sea level with the highest point in the northwestern portion of the Study Area and the lowest point in the southeastern portion within wetland W-1.

The WDNR Surface Water Data Viewer indicates the presence of one intermittent tributary associated with a forested/shrub-dominated wetland that corresponds to delineated wetland W-1 (Appendix 1, Figure 3). The wetland is classified as T3K & E2K, meaning Forested (T), Broad-leaved deciduous (3), Wet soil, Palustrine (K) and Emergent/ wet meadow (E), Narrow-leaved Persistent (2) Wet soil, Palustrine (K). The area identified and delineated by RASN as W-1 is in the same general location as the WWI mapped wetland with minor discrepancies. The discrepancies between the WDNR map and RASN's delineated boundaries are attributed to the level of wetland delineation employed during the investigation. The presence of wetlands as determined by examination of aerial photography are not as accurate as physical examination of site conditions using methods outlined in the 1987 Corps annual and its Midwest Supplement.

The NRCS Web Soil Survey indicates the presence of five mapped soils within the Study Area (Table 1 and Appendix 1, Figure 3). Ashkum silty clay loam (AtA) is a hydric soil, and Blount silt loam (BlA) is listed as containing inclusions of hydric soils in depressions.

Table 1. Mapped Soils within Study Area.

Soil Unit Name (Symbol)	Hydric Inclusion	Drainage Class	Percent of Study Area
Ashkum silty clay loam, 0-2% slopes (AtA)	97% Ashkum	Poorly to very poorly drained	20.6%
Blount silt loam, 1-3% slopes (BlA)	5% Ashkum	Somewhat poorly drained	19.9%
Hebron loam, 2-6% slopes (HeB2)	-	Moderately well drained	7.9%
Morley silt loam 2-6% slopes (MzdB)	-	Well drained	16.6%
Morley silt loam 2-6% slopes, eroded (MzdB2)	-	Well drained	35.0%

$ WDNR Wetland Indicator Soil
† NRCS Listed Hydric Soil

Based on a review of aerial photographs from 2000, 2005, and 2010, little land use change has occurred within the Study Area (Appendix 1, Figures 4A-C). The eastern portion of the Study Area started to become occasionally mowed over the last 3-5 years. The intermittent waterway is visible as a dark linear tone in the central and southern portion of the Study Area, and the area delineated as W-1 is difficult to discern on any of the aerials due to vegetative cover.

Antecedent Hydrologic Condition

Based on the WETS Analysis Worksheet in Appendix 2, precipitation was within the normal range for the months of May through July. NOAA's Advanced Hydrologic Prediction Service Map (Appendix 1, Figure 5) which analyzes precipitation data exactly 90 days prior to the date of the site visit indicated that climatic conditions were drier than normal. According to the Daily Precipitation Table in Appendix 2, there was 2.69 inches of precipitation recorded in August prior to the site visit.

Field Investigation

All areas called out as wetland or containing wetland indicators on the above-mentioned maps were evaluated in the field. A total of twelve (12) sample plots were examined and one (1) wetland was delineated and GPS-mapped by RASN (Appendix 1, Figure 2). Photos were taken of W-1 and the adjacent upland and are included in Appendix 3. Pink wire flags with the words "Wetland Delineation" were used to mark wetland boundaries. Consecutively numbered orange wire flags were used to mark sample plots along the wetland boundary and other areas examined. The data sheets were compiled and are included in Appendix 4. The following is a detailed description of the delineated wetland:

Wetland 1 – Hardwood Swamp/Fresh (wet) meadow/Sedge meadow/Cattail marsh

W-1 is a 9.03-acre hardwood swamp/fresh (wet) meadow/sedge meadow/cattail marsh complex located within the central and southern portions of the Study Area (Appendix 1, Figure 2). This wetland is associated with an intermittent, un-named tributary to the Root River that continues southward, off site and east of STH 31. Dominant wetland vegetation includes box elder (*Acer negundo*) and green ash (*Fraxinus pennsylvanica*) in the tree canopy, common buckthorn (*Rhamnus cathartica),* red-osier dogwood (*Cornus alba)* and grey dogwood (*Cornus racemosa)* in the shrub layer, and reed canary grass (*Phalaris arundinacea),* orange jewelweed (*Impatiens capensis),* Bebb's sedge (*Carex bebbii),* broad-leaved woolly sedge (*Carex pellita*), smooth goldenrod (*Solidago gigantea)* and white avens (*Geum canadense)* in the herbaceous layer.

The upland plant community around wetland W-1 is dominated by basswood (*Tilia americana),* green ash, black cherry (*Prunus serotina)* and red pine (*Pinus rubra)* in the tree canopy, common buckthorn, multiflora rose (*Rosa multiflora),* hybrid bush honeysuckle (*Lonicera x bella),* and grey dogwood in the shrub layer, and white avens, (*Geum canadense),* Canada goldenrod (*Solidago canadensis*), limestone meadow sedge (*Carex granularis*), and Kentucky bluegrass (*Poa pratensis)* in the herbaceous layer. As mentioned earlier, the eastern portion of the Study Area is occasionally mowed, and equestrian trails are mowed throughout the Study Area (refer to Site Photographs in the Appendices).

Hydrology in W-1 is sustained by surface water runoff from the surrounding upland landscape and baseflow of the un-named tributary. Physical on-site evidence of wetland hydrology within W-1 included oxidized rhizospheres on living roots, crayfish burrows, drainage patterns, geomorphic position, and a positive FAC-Neutral test.

In general, there was a subtle shift in topography and distinctive shift in vegetation along the boundary of wetland W-1. Additionally, hydrology indicators and hydric soils were absent in the representative upland data points versus the wetland data points.

According to the NRCS Soil Survey of Racine County, Ashkum silty clay loam, 0-2% slopes (AtA) is the mapped soil type within W-1. The NRCS hydric soil list classifies Ashkum silty clay loam as a poorly drained, hydric soil. The wetland soil profiles met the F6 (Redox Dark Surface) NRCS Hydric Soil Indicator and contained both silty clay loam and clay loam textures. The upland data points near W-1 lacked hydric soil indicators.

CONCLUSION

Based on the wetland assessment completed by RASN, one (1) wetland was identified within the Study Area (Figure 2). The total acreage of W-1 within the Study Area is 9.03 acres. The wetland is associated with a mapped, intermittent tributary to the Root River, and the tributary continues off-site to the south and east.

RASN ecologists are required by the WDNR to provide their professional judgment on wetland susceptibility per revised NR 151 guidance (Guidance #3800-2015-02) (Appendix 5). It is RASN's professional opinion that W-1 would best fit into the "moderately susceptible" category for NR 151 setback purposes.

Heather Patti, lead delineator, is an Assured Delineator as explained at the WDNR web site, http://dnr.wi.gov/topic/wetlands/assurance.html. The WDNR considers Ms. Patti's wetland delineation work to be "Assured" for purposes of Wisconsin waterway and wetland permits, such that her clients do not need to wait

for concurrence letters from the WDNR before relying on such determinations and delineations and may expect that wetland issues should not be the cause of delays in state waterway and wetland permit decisions.

The wetland boundary staked in the field by R.A. Smith National, Inc. is a professional finding based on accepted USACE and WDNR methodology at the time the wetlands were delineated. This wetland delineation field work and report is not intended to meet the requirements of an SEWRPC Environmental Corridor, WDNR Endangered Species Review, a navigability determination, or the location of either the Ordinary High Water Mark or floodplain.

Wetlands and waterways that are considered waters of the U.S. are subject to regulation under Section 404 of the Clean Water Act (CWA) and the jurisdictional regulatory authority lies with the USACE. Additionally, the WDNR has regulatory authority over wetlands, navigable waters, and adjacent lands under Chapters 30 and 281 Wisconsin State Statutes, and Wisconsin Administrative Codes NR 103, 299, 350, and 353. In addition, the USACE and WDNR have jurisdictional authority to determine which features are exempt including stormwater ponds and conveyance features. If the client proposes to modify an existing stormwater feature, an Artificial Determination Exemption would need to be submitted. See the form on the WDNR Wetland Identification website (fee involved) http://dnr.wi.gov/topic/wetlands/identification.html. Furthermore, municipalities, townships and counties may have local zoning authority over certain areas or types of wetland and waterways. The determination that a wetland or waterway is subject to regulatory jurisdiction is made independently by the agencies.

Any activity in the delineated wetland may require U.S. Army Corps of Engineers permits and State of Wisconsin Department of Natural Resources Water Quality Certification, and local government permits. If the Client proceeds to change, modify or utilize the property in question without obtaining authorization from the appropriate regulatory agency, it will be done at the Client's own risk and R.A. Smith National, Inc shall not be responsible or liable for any resulting damages.

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Appendices

Appendix 1: Figures

Appendix 2: WETS Table Analysis, NRCS WETS Table & Daily Precipitation Table

Appendix 3: Site Photographs

Appendix 4: Wetland Determination Data Forms – Midwest Region

Appendix 5: NR 151 Wetland Susceptibility Table

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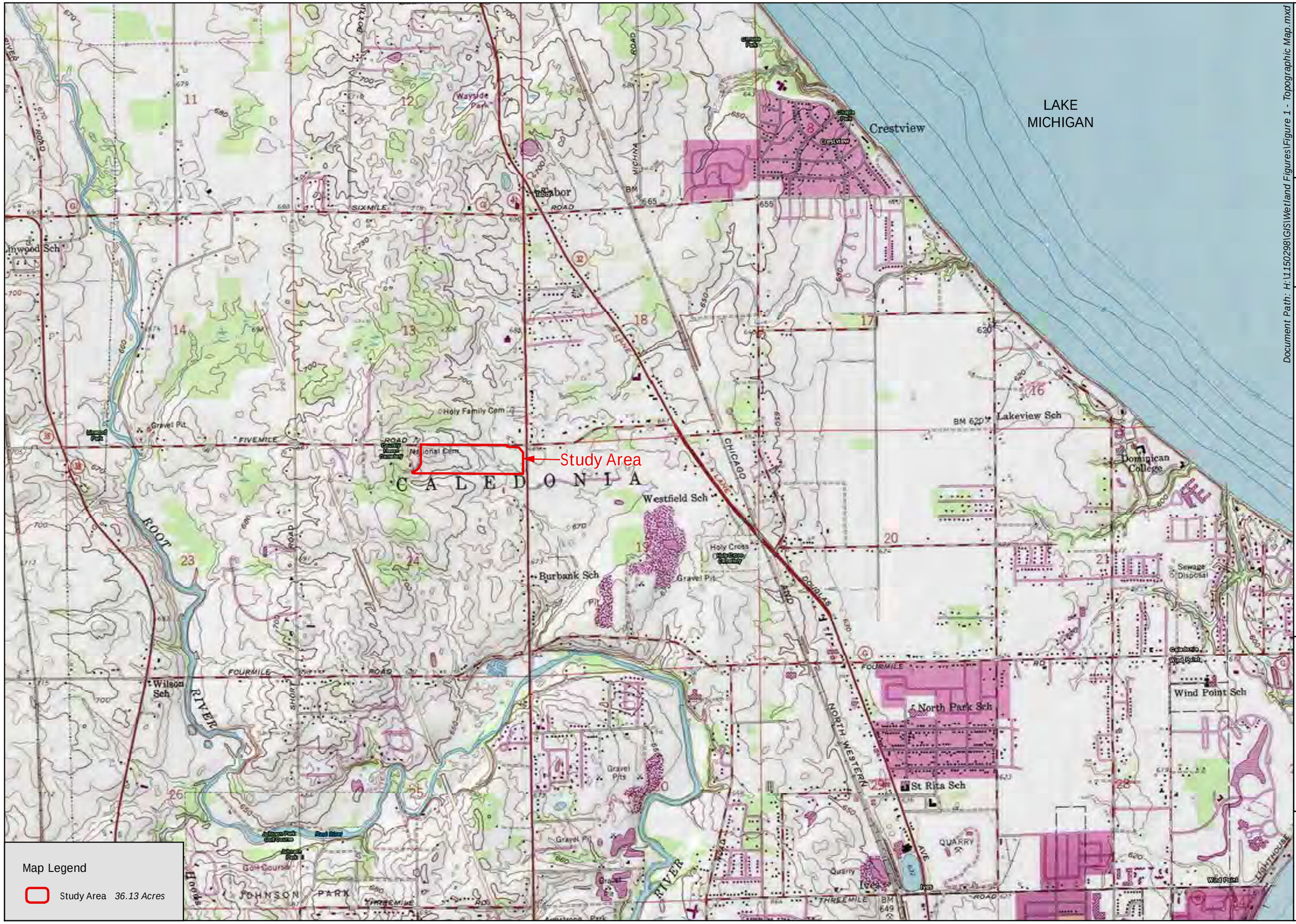
Figure 2: Wetland Boundary Map

Figure 3: Existing Conditions Map (Soils & WWI)

Figures 4A-C: Aerial Photographs (2000, 2005, 2010)

Figure 5: 90-day Percent of Normal Precipitation Map



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August 20, 2015

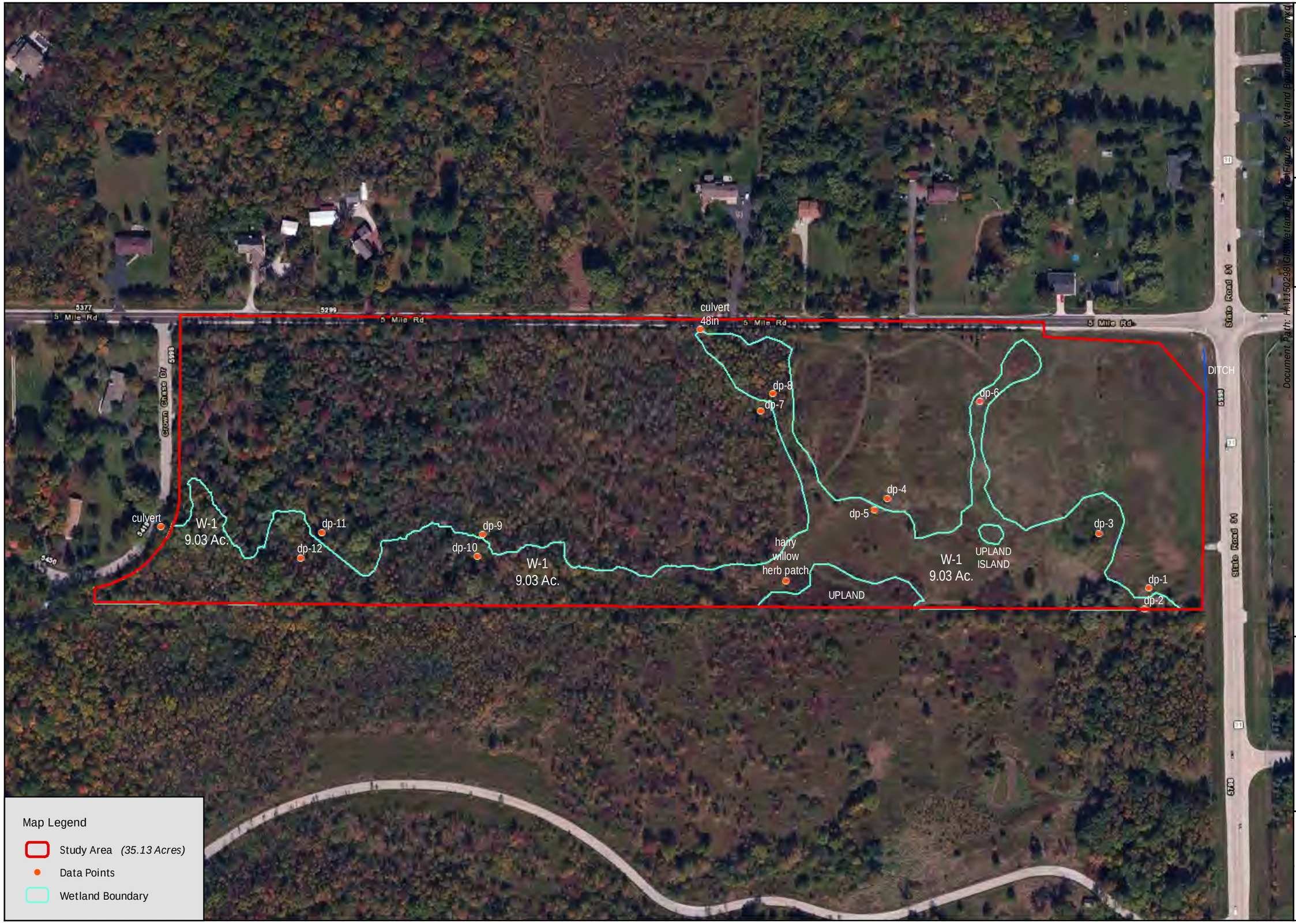
1150298

King's Corner
5 Mile Road and STH "31"
Village of Caledonia
Racine County, WI

Map Legend

Study Area *36.13 Acres*

Figure 1
Topographic/
Site Location
Map



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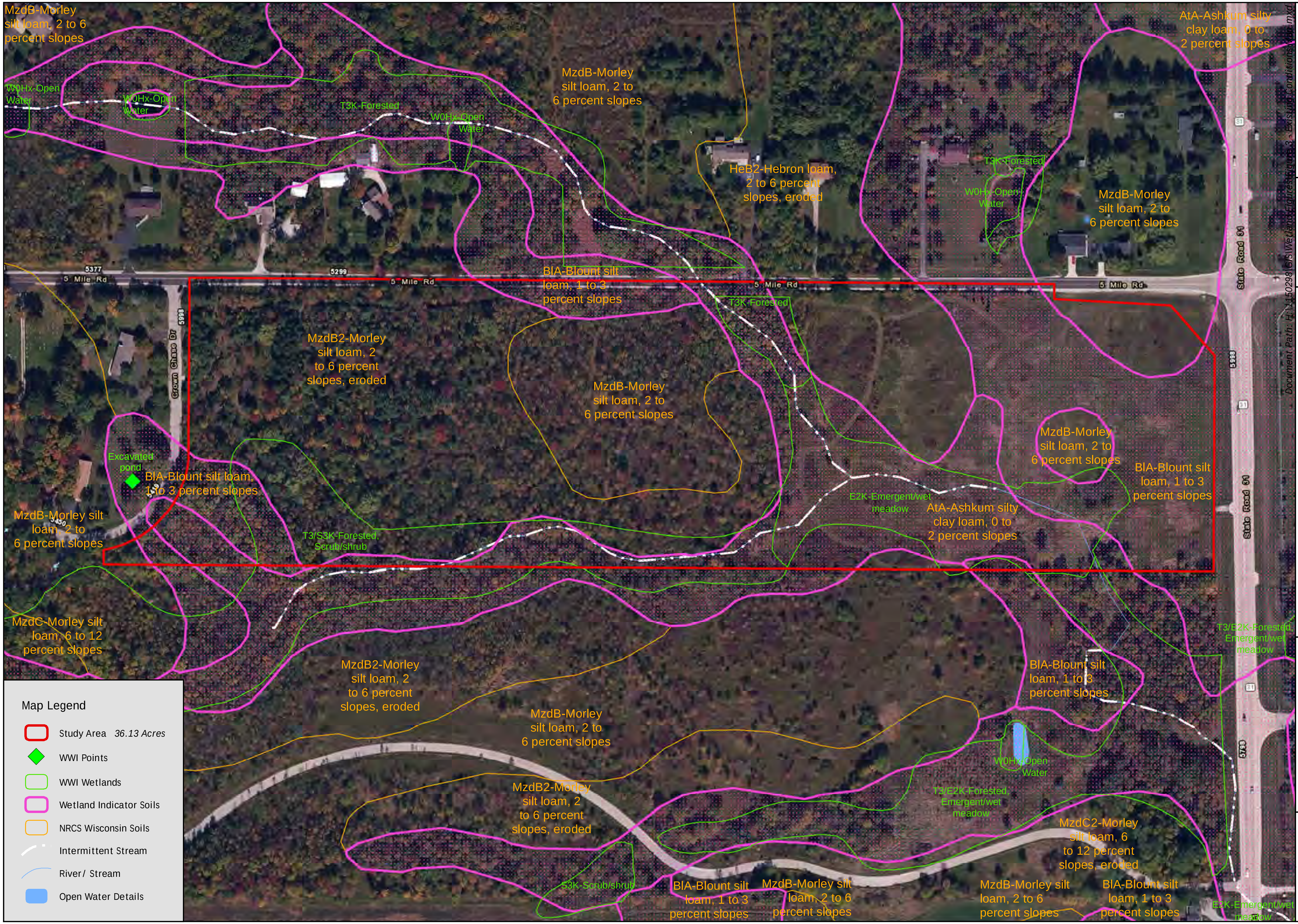
September 21, 2015

1150298

Document Path: H:\1150298\GIS\Wetland Figures\Figure 2 - Wetland Boundary Map.mxd

King's Corner
5 Mile Road and STH "31"
Village of Caledonia
Racine County, WI

Figure 2
Wetland Boundary Map



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1 inch = 200 feet

August 20, 2015

1150298

King's Corner
5 Mile Road and STH "31"
Village of Caledonia
Racine County, WI

Figure 3
WDNR Surface Water Data Viewer Map

Student Input Questionnaire

Caledonia Conservancy
November 13, 2015

1 How old are you?

Age	Frequency of Response
<5	1
5-9	4
10-12	5
13-15	1
<15	0

2 What do you like to do when you play?

Activity Type	Frequency of Response
Imaginative	3
Sports-based	3
Game Play (tag/chase)	2
Independent	1
Group-based	1
Constructive	4
Nature exploration	0
Sedentary	4
Equipment-based	2
Other	1

3 What games do you like to play when you play outside?

Game Type	Frequency of Response
Imaginative	1
Sports-based	4
Game Play (tag/chase)	4
Independent	6
Group-based	0
Constructive	3
Nature exploration	3
Sedentary	1
Other	0

4 Who do you like to play with?

Person	Frequency of Response
Friend	5
Classmate	0
Parent/Guardian	5
Sibling	3
Other relative	2
Solitary	1
Other (dogs)	1

5 What kind of things do you play with outside?

Type	Frequency of Response
Team sports equip	4
Nature objects	3
Individual equip	5
Water-based equip	1
Trails	1
Other	2

6 Where do you like to play?

Location	Frequency of Response
Outdoors	5
Forts/Structures	1
Trails	1
Parks	2
Equipment	4
Other	2

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Student Input Questionnaire

7 Who plays with you?

Person	Frequency of Response
Friend	5
Classmate	0
Parent/Guardian	2
Sibling	3
Other relative	3
Other (dogs)	3

8 What is your favorite thing to do outside?

Activity Type	Frequency of Response
Imaginative	0
Sports-based	2
Game Play (tag/chase)	1
Independent	3
Group-based	0
Constructive	1
Nature exploration	1
Other	2

9 If you could change one thing about where you play now, what would it be?

Change	Frequency of Response
New/better Equip	7
Infrastructure	1

Parent/Guardian Input Questionnaire

Caledonia Conservancy
November 13, 2015

1 Circle the age group of your child:

Age	Frequency of Response
5-9	5
10-12	4
13-15	2
<15	1

2 How often does your child visit a park?

Frequency of Visits	Frequency of Response
Daily	3
Several times/week	3
Weekly	2
Once every few weeks	1
Monthly	1
Rarely or never	0

3 How often does your child engage in outdoor play?

Frequency	Frequency of Response
Daily	9
Several times/week	0
Weekly	0
Rarely	0
Never	0

4 Where does your child engage in outdoor play?

Location	Frequency of Response
School	1
Parks	1
Home/backyard	9
Daycare	0
Other	0

5 What is the most important variable for your child in outdoor play areas or playgrounds?

Variable	Frequency of Response
Unique design	1
Variety of activities	7
Creative opps	1
Size	1
Natural looking	1
Hiding places	0
Proximity to home	4
Accessible	0
Age-appropriate spaces	4
Secure	0
Active play	1
Challenging	2
Kids have fun	2
Other	2

6 What are the things you like least about play areas/ playgrounds?

Variable	Frequency of Response
Lack of visibility	1
Not age appropriate	1
Lack of shade	2
Type of equipment	0
Fencing	0
Maintenance issues	6
Not age separated	1
Safety concerns	3
Lack of restrooms	7
Other	0

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Parent/Guardian Input Questionnaire(Continued)

7 When your child visits a play area/playground what activities do you recall them engaging in the most?

Variable	Frequency of Response
Playing on equip	7
Play ***around*** equip	4
Socializing	4
Exploring	3
Building/constructing	1
Other	2

8 What other reasons do you have for visiting a play area/playground with your child?

Reasons	Frequency of Response
Picnic/snack	4
Read	0
Meet a play group	5
Sport	3
Ride a bike	5
Walk a dog	3
Other	0

9 Does your child prefer to play inside or outside?

Location	Frequency of Response
Inside	3
Outside	9

10 What does your child play with most often at home?

The most common response to this question was Legos, followed by video games or other toys. At home nature-based or even art-based play was uncommon.

11 Who does your child play with most often?

Siblings or neighbors were the most frequently cited playmates, followed by parents or guardians and pets.

12 What game(s) does your child play most often?

Sport based or recreational strategy-based games were most cited.

13 How would you characterize your child's play?

Play Type	Frequency of Response
Imaginative	4
Sports-based	3
Game-based	7
Independent	2
Group-based	3
Building/Constructive	2
Other	0

14 What park(s) does your child visit most often now? Why?

Parks listed: Caledonia Conservancy, Crawford Park, Castle Park, Grant Park, Armstrong Park, Caledonia Dog Park, Franklin Park, Petrified Springs Park, various walking trails, Pleasant View Park, Franklin Park.

The most common reason cited for visiting a park was because of its proximity to home.

Comments

We were able to collect responses for 12 students during the input event. During the event we collected input from children ranging in ages from 3-14. We were also able to solicit input from parents or guardians.

The input strategies were to interview students as well as any parents or guardians while students drew their impressions or desires for a 'fun' playground.

Although, student participants described themselves as desiring to play with others but finding they play by themselves, parent and guardian observations indicated that the children participants did like to play with others.

Having other children around or to play with was identified by students and parents as important.

Engaging in play was identified by students and parents are more significant than the play setting.

Drawings of desirable playgrounds that students prepared during their interviews overwhelming exhibited a preference for play equipment, but nature and natural features were key in nearly all drawings. If the drawings were abstracted the key componenents that come out are:

- A variety of place with varying heights;
- Places to play collectively and independently;
- Places that challenged their own sense of their physical abilities;
- Places to physically act out or role play active imaginative games;
- Places that can accomodate multiple types of games with varying degrees of difficulty.

It appears from responses by both groups that parks are generally regarded for active play.

Parks are a significant social outlet and place to develop socialization skills as identified by students and parents.

Parking

Preferred Images

Preferred Materials & Outcomes

Parking should accommodate 1-4 horse trailers and 5-30 cars. Meeting attendees expressed a strong preference for a stone or gravel parking lot. There was some interest in pervious paver systems. Responses demonstrated a strong preference for low-maintenance parking that can be maintained "in house" by staff. Infiltration was preferred to treatment, but photo preferences suggested that a combination of permeable parking surface and bioswales or rain gardens for treatment of runoff might be desirable.

A rustic parking lot that is open to the public without delineated parking spots was preferred over a more improved parking condition. The parking should be available year-round and should not be prone to occasional flooding. The parking lot does not need to be lit. Preferences for both small, dispersed parking and a large, centralized parking lot suggests that a combination of the two approaches may be warranted. For example, a large parking lot may be provided near a visitor center or gathering space, with smaller lots located at trailheads.

Trails

Preferred Images

Preferred Materials & Outcomes

Trails should have a rustic character and remain relatively narrow and unlit. Gravel and stone were the most commonly preferred surface material. Preferences for dirt, boardwalk, and grass trails were almost evenly split between participants, with some strongly in favor and some opposed. Of the two pictures showing boardwalk experiences, participants overwhelmingly preferred the image showing a narrower width and lower railings. Conversations at the meeting suggested that dirt and grass trails may be liked for their rustic experience, but that there are concerns about on-going maintenance that would need to be addressed for these trail types.

Trails should be marked and should remain low maintenance. Respondents overwhelmingly thought they should be ADA accessible "In Places", suggesting a preference for a variety of difficulty levels throughout the trail system. A loop system was suggested at the meeting as a way of uniting a diverse offering of trail types. Trail uses might include horse back riding, walking, jogging, casual biking, and a discovery trail.

During the meeting participants indicated a preference for separated but "side by side" uses. Worksheet responses showed ambivalence over whether uses should be separated, with a slight preference for combined uses.

Wayfinding

Preferred Images

Preferred Materials & Outcomes

Meeting attendees expressed interest in a way-finding system that consists of an entrance sign and/or orientation sign, maps illustrating pedestrian and horse trails, and midtrail orientation markers. Educational content was also desired in places along the trail.

Wood was the most preferred material, followed by stone. There was a strong preference for permanent signs. There was no strong preference for whether signs would be manufactured or built in-house. They do not need to be lit.

Gathering

Preferred Images

Preferred Materials & Outcomes

Small informal gathering spaces with a natural aesthetic were preferred over larger and more elaborate designs. Stone and wood were the most popular building materials.

Gathering space should be multi-purpose rather than focused on a specific educational activity. There was an interest in making gathering spaces at the Conservancy available for corporate retreats. Desirable amenities identified by participants included bathrooms, picnic facilities, fireplaces, tables, electrical power, and water.

While picnic areas and a fire pit were preferred by participants, they were more divided on whether these spaces should include barbecue facilities. Most participants were strongly opposed to using gathering spaces for camping.

Structures

Preferred Images

Preferred Materials & Outcomes

Meeting participants preferred open to semi-open structures made of wood or stone. While they preferred open architecture, they also expressed a strong desire for year-round access and functionality. The structure should also be low-maintenance. Participants were divided on whether the structure should be available to rent, whether there should be one main structure or several small dispersed structures, and whether the structures should be built by members.

Nature Play

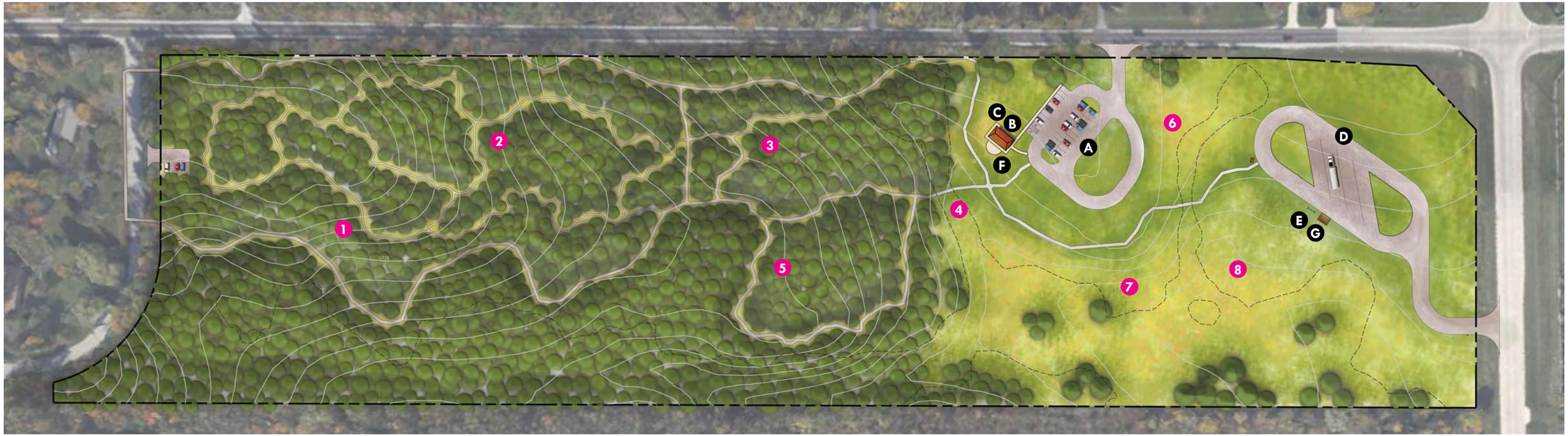
Preferred Images

Preferred Materials & Outcomes

Participants generally preferred smaller, more low impact play elements as opposed to large playground features. Possible play elements preferred by participants included, slides, tunnels, turf, a rolling hill, hopping blocks, playtables, water, chimes, drums, and a climbing sculpture.

Participants preferred play elements made of wood. Any play surfaces should be mulched. Low maintenance was important, and play should focus on nature as opposed to learning. The most favored age group to target for nature play was 5-8 years old.

CONCEPT



NATURE ACTIVITY NODES

1 STICK FORT

2 ANT FARM (ROOTS, WORMS)

3 DINNER PLAY

4 STUMP STEPPERS

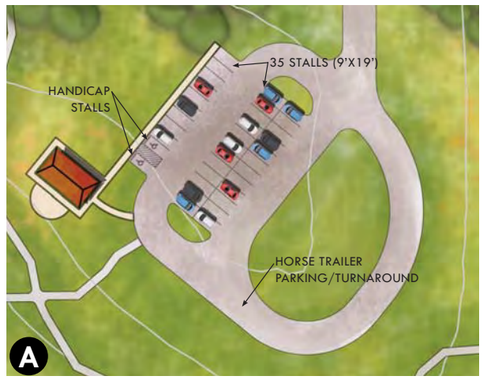
5 WEAVING STATION

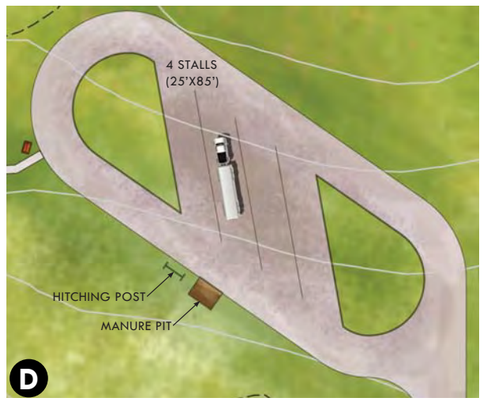
6 WOOD CHIMES

7 TIC TAC TOE

8 "SENSORY SEASONS"

PARKING LAYOUT



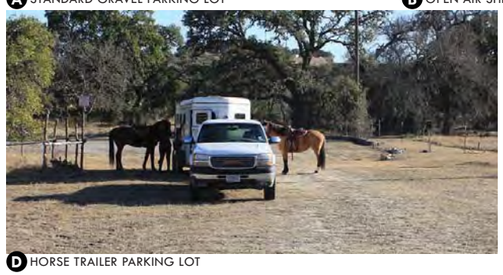


SITE FEATURES

A STANDARD GRAVEL PARKING LOT

B OPEN AIR SHELTER

C PICNIC TABLE



D HORSE TRAILER PARKING LOT

E HITCHING POST

F PIT TOILET

G MANURE PIT

HIKING TRAIL

EQUESTRIAN TRAIL

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16_0831

CALEDONIA CONSERVANCY - CONCEPT PLAN

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16_0831

CALEDONIA CONSERVANCY - PROPOSED TRAILS

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King's Corner Stewardship Plan

4813 5 Mile Road
Caledonia, WI

June 30, 2018

CALEDONIA CONSERVANCY

Caledonia Conservancy
P.O Box 044714
Racine, WI 53404-7015

Thompson & Associates Wetland Services

Prepared by
Thompson & Associates Wetland Services
1514 Menomonee Ave.
South Milwaukee, WI 53172
414-571-8383

This report was prepared for Caledonia Conservancy by Thompson and Associates Wetland Services over the Summer and Fall of 2017 and the Spring of 2018. The investigators include:

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Aaron Menke, BS
Stephen Andrew McGuire, PhD
Maureen Bogdanski, BS
Carissa Anich, BS
Danielle Tesar, BS

Marsh marigold in bloom at King's Corner

"To those devoid of imagination a blank place on the map is a useless waste; to others, the most valuable part." Aldo Leopold, A Sand County Almanac.

1. INTRODUCTION

Plan Purpose

This stewardship plan has been developed to document existing conditions on the Caledonia Conservancy's King's Corner property and to set forth a strategy for protecting, restoring and managing the site. King's Corner was donated to the Caledonia Conservancy by the Ehrlich family, residents of the area, to commemorate "Master" equestrian Kingston W. and Toni Ehrlich and to preserve space for equestrian activities in Caledonia on August 30th, 2007.

The plan is funded through the Caledonia Conservancy. The Caledonia Conservancy's mission is to preserve land for the future, connect people with nature, improve the quality of life through public access to trails, and to build a sustainable community through stewardship, education, and outreach. Much of their conservation work is focused around preserving and promoting the equestrian arts in Caledonia. The King's Corner property is a prime example of this mission being a preserved natural area with well-maintained horse and walking trails.

Site Description

The King's Corner property at 4813 5 Mile Road is a 35.13-acre plot located at the southwest corner of STH 31 and 5 Mile Rd in the NE 1/4 of Section 24, Township 4 North, Range 22 East in the Village of Caledonia, Racine County, WI. The study area is bordered by sparse residential land to the north of 5 Mile Rd and west of Crown Chase Dr., agriculture and residential development to the east of STH 31 and undeveloped land and agriculture to the south. North of the study area, between 5 Mile Rd and 6 Mile Rd, is Gordon Tabor Woods which has been labeled a "Natural Area of Local Significance" by the Southeastern Wisconsin Regional Planning Commission. To the south is the Racine County Pony Club and much of the undeveloped land to the south and west of the study area is connected through a network of locally maintained horse trails.

The property consists of forested land in the west portion of the site with open meadow and sedge meadow dominating in the northeast corner of the study area. There is also a 9.03-acre wetland that runs through the study area on the south boundary. The wetland is seasonal with standing water in the spring that dries down in the summer. The wetland coincides with two

unnamed intermittent streams on the property that drain to the Root River and eventually Lake Michigan.

The Caledonia Conservancy has built and maintained horse trails, jumps and hiking trails and also constructed a parking lot off 5 Mile Road in 2017. The Conservancy also sponsored a prescribed burn of the Sedge Meadow and Meadow Units in Spring, 2018.

Restoration and Management Summary

King's Corner has potential as a positive educational setting for the public and nearby institutions of higher learning. The habitat mosaic of upland forest- both coniferous and deciduous, wooded wetland, sedge meadow and upland meadow are attractive to both humans and wildlife. This plan includes an ecologically-focused evaluation of the site's current status and functions, document possible restoration priorities, and lay out a stewardship plan focused on restoration and management that can be amended in the future.

2. HISTORIC CONDITIONS- Ecological and Social

The King's Corner site is located in the **Southern Lake Michigan Coastal Ecological Landscape Region** (WDNR) and was mapped prior to European settlement as **hardwoods forest** with beech, sugar maple, basswood, red oak, white oak and black oak (Figure 1). This forest extended from this site east to Lake Michigan and west of the site 0.3 miles where it transitioned to Prairie. This forest once covered the shoreline from the current location of Cudahy to Racine.

The hardwood forest had ephemeral wetlands intermingled within the lower landscape positions or along stream channels. The site is within the **Root River Watershed** with the un named tributary intermittently running through the center of the site and continues south of 4 Mile Road to the Root River. The un-named tributary is WBIC 3070 and joins the lower reach of the Root River – reach RR 22 in the Root River Watershed Plan as shown on the right (SEWRPC, 2014).

Location of King's Corners in Root River Watershed, SEWRPC, 2014

The **Bordner Land Economic Inventory** was a Wisconsin project to map the state resources county by county in the 1930s. The Border Map shows the conditions in 1934 when Racine County was mapped. At that time the east and west portions of the site were cropped (C) , and the center portion was pasture (P). There is a single house on the southeast side of the site adjacent HW 31. Areas of old barbed wire fence

found on the site indicate that past use may have included grazing.

The current woodlands developed after the site was released from farming. There are conifer trees on the west 1/3 of the site that were deliberately planted and are 30 years or older, the deciduous woods in the center of the site was an early successional woodland as trees, principally green ash, colonized the site.

The **Natural Resource Conservation Service Soil Map** is shown on Figure 3. The upland woods on the west and center of the site are in mapped Ozaukee silt loam (OzaB2, OzaB), an upland soil with hydric soils in depressions. Hebron loam (HeB2) is another upland soil within the north center of the site. The wetlands are located within Ashkum silty clay loam (AtA) a wetland soil that borders the south portion of the site and the east center. The far east portion of the site includes Blount silt loam (BIA) which is an unplan soil with wetland soils in depressions.

The **wetlands** were delineated by Heather Patti, RA Smith National in 2015. The wetland delineation report is attached as an Addendum. The wetland line is approximated on Figure 4. During the field delineation completed by Ms. Patti, soil cores in the wetland basin showed 20+ inches of silt loam, silty clay loam, and silty clay. Redoximorphic features were identified in the first 12 inches of the soil cores taken in the wetland area, a key indicator that hydric soils are present. Hydrological indicators including geomorphic position, crayfish burrows, drainage patterns, and a positive FAC-neutral test were also identified in the wetland delineation.

The topography is highest on the northwest side of the site with the elevation at 717 feet above sea level. The lowest point in on the southeast portion of the site at 677 feet above sea level. This is a 40 foot drop across the site.

3. EXISTING NATURAL RESOURCES

General Vegetation and Habitats

The site was field reviewed throughout the summer and fall of 2017 and the spring of 2018 by Thompson and her Associates to capture the greatest number of flowering plants and general condition of the site. We identified 138 plant species in King's Corner including 28 tree species, 17 shrub species, and 98 herbaceous species including grasses, sedges, and wildflowers. Based on extensive vegetation notes the site has been broken up into five units based upon the hydrology and the vegetation in each specific area (see Figure 5A). Similar areas have been grouped together for further convenience. Figure 5B shows the ecological units with the aerial visible.

Marsh marigold in Sedge Meadow Unit

The five ecological units are named: Meadow, Sedge Meadow, Wooded Wetland, Deciduous Woodland and Conifer Woodland.

We inventoried each ecological unit and identified dominant vegetation in each section. The plant species are listed in Table 1 with the scientific and common name, Facultative Status, C-Value, and Life History Notes. The Facultative Status indicates how wet or dry the landscape is that supports that plant. Wetland plants have a Facultative Status of Fac (Facultative or 50% in wetlands), Fac W (Facultative Wetland or `75% in wetlands) and Obl (Obligate, or 99% in wetlands). Facultative Upland (Fac U) and Upland (Upl) species are found primarily in uplands.

The C-Value of each plant was recorded with mean C-Value and FQI determined for each ecological unit. The C-value of each plant can range from 0-10 and gives an indication of how specialized its habitat preferences are. Plants that are found in undisturbed landscapes have a higher C- value, plants that are widespread and found in disturbed landscapes have a lower value, while non-native plants have a C-value of 0. The FQI or Floristic Quality Index is calculated from the mean C- value and can be used to compare the quality or condition of different landscapes. An FQI of less than 20 indicates low vegetative quality; 20-35 indicates high vegetative quality, and above 35 indicates "Natural Area" quality.

Life History notes were included for some major and interesting species on the site, that demonstrate the wildlife and insect value of many plants, as well as which are of concern as invasive plants.

Although the Floristic Quality Index is useful for evaluating the condition of natural areas, we know this site has had extensive disturbance since the original timbering, cultivation and pasture, and subsequent release from agriculture. Therefore, the FQI documents subsequent re colonization of plants onto the site. Three of the five areas, Sedge Meadow, Wooded Wetland and Conifer Woodland had "high vegetative quality" scores, the Meadow and Deciduous Woodland had "low vegetative quality" however, there is significant wildlife, and aesthetic value to each ecological unit. The site has significant reserves of biodiversity and the whole is greater than each unit.

Meadow Ecological Unit- 6.8 acres

The **Meadow Ecological Unit** is in the North central and Northeast corner of the site and is separated by a thin wetland peninsula which is a part of the Sedge Meadow Wetland Ecological Unit. Both **Meadow** areas consist of mostly upland vegetation with old field vegetation characterized by open grassland with a few shrubs and small trees scattered throughout. There are mowed walking paths throughout with a large open mowed area about 1.16 acre in size along the middle-east section labeled as "Mowed Unit". West of this large open mowed area is a large mound completely covered in sandbar willows (*Salix interior*), just east of the Sedge Meadow Wetland Ecological Unit.

Common milkweed in Meadow Unit

Some of the grasses that are dominant in the Meadow Ecological Unit include reed canary grass (*Phalaris arundinacea*), red top grass (*Agrostis gigantea*), common brome (*Bromus inermis),* and timothy grass (*Phleum pretense*). Dominant forbs in these areas include both common (*Ambrosia artemisiifolia*) and giant ragweed (*Ambrosia trifida*), common milkweed (*Asclepias syriaca*), Queen Anne's lace (*Daucus carota*), common fleabane (*Erigeron philadelphicus*), grass leaved goldenrod (*Euthamia graminifolia*), black eyed Susan (*Rudbeckia hirta*), curly dock (*Rumex crispus*), Canada goldenrod (*Solidago canadensis*), New England aster (*Symphyotrichum novae-angliae*), and bull thistle (*Cirsium vulgare*).

Trees included the invasive Autumn olive (*Elaeagnus umbellata*), eastern red cedar (*Juniperus virginiana*) and scattered young bur oak (*Quercus macrocarpa*). Common shrubs include white spruce (*Picea glouca*) gray dogwood (*Cornus racemosa*), sandbar willow (*Salix interior*) and elderberry (*Sambucus canadensis*).

Overall the Meadow Ecological Unit has 36 species of which 22 are native or 61%. The Mean C-Value was 3.05 and the Floristic Quality Index was 14.31 (low quality < 20).

Sedge Meadow Ecological Unit- 3.7 acres

The **Sedge Meadow Wetland Ecological Unit** is all open wetland with some shrub areas, sedge meadow, and fresh wet meadow. This ecological unit is located along the southeastern half of the sight with a peninsula protruding north and centered between the Meadow Ecological Unit. This wetland is dominated by water loving sedges and rushes including *Carex bebbii*, *Carex stipata*, *Carex stricta*, *Carex trichocarpa* and *Carex vulpinoidea*. Red footed spike rush (*Eleocharis palustris*), Dudley's rush (*Juncus dudleyi*), dark green bulrush (*Scirpus atrovirens*), woolgrass (*Scirpus cyperinus*) and cattail (*Typha sp.*) are also present. There was some reed canary grass, but it is not dominant.

Above-Sedge Meadow with swamp milkweed and blue vervain- Monarch Butterfly in upper right corner.

The forbs included swamp milkweed (*Ascepias incarnata*), blue vervain (*Verbena hastata*) beggers ticks (*Bidens frondosa*), marsh marigold (Caltha palustris), jewel weed or touch me not's (*Impatiens capensis*), wild bergamot (*Monarda fistulosa*), and New England and Purple – stem aster (*Symphyotrichum novae-angligae*, *S. punicum*).

Purple loosestrife (*Lythrum salicaria*) is present in isolated patches in the sedge meadow and needs to be contained (see appendix for control options). The plants have increased in number between 2017 and 2018.

Shrubs included silky (*Cornus ammomum)* and gray dogwood (*Cornus racemosa),* honeysuckle (*Lonicera tartarica*) and elderberry (*Sambucus canadensis*).
The Sedge Meadow Ecological Unit has 59 species of which 40 are native or 68%. The Mean C-Value was 3.38 and the Floristic Quality Index was 21.21 or high quality (20-35= high quality).

Above left: Great blue lobelia

Above right: Marsh marigold

Lower left: Wooded wetland

Lower right: Boneset with Pearl Crescent butterfly

Wooded Wetland Ecological Unit- 5 acres

Wooded wetland and un-named stream

The Wooded Wetland Ecological Unit on the south side of the site contains areas separated by an old barbed wire fence. East of the barbed wire fence consists of a sedge meadow while west of the fence is dominated by reed canary grass. This may be indicative of past grazing that caused a shift in sedge vegetation to reed canary grass. The wooded wetland extends north between the upland deciduous woods and the meadow. Some of the species present in both areas that have not been observed in the Meadow or Sedge Meadow Wetland include Canadian blue joint grass (*Calamagrostis canadensis*), fowl mannagrass (*Glyceria striata*), sneezeweed (*Helenium autumnale*), Virginia creeper (*Parthenocissus quinquefolia*), green ash (*Fraxinus pennsylvania*), black cherry (*Prunus serotina*) and honey locust (*Gleditsia triacanthos).*

The Wooded wetland included silver maple (*Acer saccharinum*), hawthorn (*Crataegus sp.*), green ash (*Fraxinus pennslyvanica*), apple (*Malus pumila*), crack willow (*Salix X fragilis*), American basswood (*Tilia americana*) and white cedar (*Thuja occidentalis*). Shrubs include gray and silky dogwood (*Cornus racemosa, C. amomum*), and American highbush cranberry (*Viburnum opulus*). The invasive common buckthorn (*Rhamnus cathartica*) is also present.

The Wooded Wetland Ecological Unit contained 66 species- the highest of all the units- of these 51 were native or 77%. The Mean C-Value was 3.39 and the Floristic Quality Index was 24.21 or high quality (20-35= high quality). This was the highest FQI as well.

Deciduous Woodland Ecological Unit- 7.9 acres

Dead and dying ash in Deciduous Woodland Unit

The Deciduous Woodland Ecological Unit lies along 5 Mile Road, north of the Wooded Wetland, and just west of the parking lot which was recently constructed. The most prevalent species is dying or dead green ash (*Fraxinus pennslyvanica*). Other tree species included bitternut hickory (*Carya cordiformis*), shagbark hickory (*Carya ovata*), and weeping willow (Salix X pendulina). Shrubs include gray dogwood, (*Cornus racemosa*), nannyberry and American highbush cranberry (*Viburnum lentego, V. opulus*). The state special concern plant Black haw (*Viburnum prunifolium*) is also present. Some of the species present that have not been noted elsewhere include water plantain (*Alisma triviale*), fringed loosestrife (*Lysimahia ciliata*), stinging nettle (*Urtica dioica*), and shagbark hickory (*Carya ovata*). The invasive common buckthorn (*Rhamnus cathartica*) is also present.

The Deciduous Woodland Ecological Unit has 41 species of which 30 are native or 73%. The Mean C-Value was 3.66 and the Floristic Quality Index was 18.07 or low quality (low quality < 20).

Conifer Woodland Ecological Unit- 7 acres

The Conifer Woodland Ecological Unit is a large wooded portion taking up much of the northwestern half of the site. This area was likely planted to conifers after release from pasture. Trees are in visible rows and many non-native conifers are present. The east side is dominated by dying green ash while the west side has a large abundance of conifers. There are 18 tree species, of which 6 are conifers including eastern red cedar (*Juniperus virginiana*), Norway spruce (*Picea abies*), white spruce (*Picea glauca*) and Austrian and Scots pine (*Pinus nigra, P. sylestris*). Some of the hardwood tree species copious in the Conifer Woodand are box elder (*Acer negundo*), sugar maple (*Acer saccharum),* bitternut hickory (*Carya cordiformis*), American basswood (*Tilia americana*) and American elm (*Ulmus americana*).

Above: Conifer Woodland unit on west side of King's Corner
Below: Silky dogwood shrub

Shrubs include gray and silky dogwood (*Cornus racemosa, C. amomum*), nannyberry (*Viburnum lentego*) American highbush cranberry (*Viburnum opulus*) and prickly ash (*Zanthoxylum americanum*). The invasive common buckthorn (*Rhamnus cathartica*) is also present.

The understory included small red oak seedlings (Quercus rubra), and many forbs found across the site. The remnant ephemeral woodland species may apple (*Podophyllum peltatum*) and reflexed trillium (*Trillium recuratum*) were also present.

The Conifer Woodland Ecological Unit has 48 species of which 31 are native or 65%. The Mean C-Value was 3.9 and the Floristic Quality Index was 21.21 or high quality (20-35= high quality).

Vegetation Summary

The current condition of the site reflects the past history of land use and current pressures. The history of recent human disturbance includes timbering prior to 1930, cropping for decades, and release from agriculture in the last 50 years (exact date unknown). There were conifer plantings of pine and spruce on the west side of the site, and hardwoods including green ash, willows, maples and hickories succeeded pasture land in the center.

The current pressures include invasive plant species which will be described below. The most prominent current invasive species is the Emerald Ash Borer which has killed or is killing the majority of green ash on site.

There are many native plant species present despite these pressures. As documented above, the Sedge Meadow, Wooded Wetland and Conifer Woodland Ecological Units support high quality vegetation assemblages. King's Corner has good structural diversity. Its tree canopy, shrub layer, and herbaceous layer each provide significant wildlife habitat as is, yet the site also presents restoration opportunities, particularly in terms of invasive species management and additional plantings.

Many of the wetland and woodland forbs attract beneficial insects including butterflies and bumble bees. Milkweed in both the Meadow and Sedge Meadow Ecological Units provides critical egg laying habitat for Monarch Butterflies.

Wildlife

The King's Corner site has a rich mixture of habitats that attracts wildlife. The woods, wooded wetlands and open meadow provide a mosaic of habitats. There is connected habitat on the north, south and west edges of the site that also increases habitat value. Wooded wetlands and intermittent streams provide a unique and important habitat for many species. These environments lack predatory fish and are rich in nutrients because of decaying leaves. This combination is ideal for amphibians such as mole salamanders, chorus frogs, wood frogs, and toads, which lay their eggs in these sheltered pools. Seasonal wetlands are also important for birds. Wading birds, waterfowl, and song birds all feed and water at seasonally flooded basins. King's Corner provides habitat is a stopover migration corridor for migrating birds and nesting/resting habitat.

Wetland in southeastern portion of site

The woodlands and native shrub layers are critical to providing insects for migratory songbirds that were evident this spring. A variety of birds were observed at King's Corner in 2017-2018, including field, chipping, white-crowned, and white throated sparrows, the black and white and yellow rumped

warblers, and eastern towhee to name a few. Later in the season the trees and shrubs provide fruits and berries that are food sources for songbirds, waterfowl, and mammals.

Despite the ravaging of green ash on site, the cavities in dead wood can be used as shelter and nesting. Mammals that forage and nest in this woodland habitat typically include minks, raccoons, and squirrels.

The Meadow and Sedge Meadow have a variety of wildflowers and native sedges and grasses. Nectar and pollen provide food sources for insects including native bees and flies, butterflies and moths. and fruits and berries are food sources for songbirds, waterfowl, and mammals. Both arthropods and songbirds feed on trees, and even the lowly box elder has a high arthropod count, providing ecosystem services to the local food web.

Chorus frog eggs found in ephemeral pond at King's Corner.

When the site's intermittent stream carries water, the property supports habitat for amphibians and macroinvertebrates. A visit to the ephemeral pond on the south boundary of King's Corner in the Sedge Meadow Wetland in spring 2018 revealed several species utilizing the seasonal habitat. Chorus frogs and American toads were heard calling for mates, three chorus frog egg masses, eastern newt, wood frogs, fairy shrimp and water striders were also observed.

Eastern tiger swallowtail butterfly on swamp milkweed in Sedge Meadow Unit.

Bird nest in sandbar willow

Table 2. King's Corner Wildlife observed over the 2017- 2018 field season

Kings Corner Wildlife	
Mammals	
Species	**Common name**
Odocoileus virginianus	white-tailed deer
Birds	
Species	**Common Name**
Accipiter cooperii	coopers hawk
Agelaius phoeniceus	red winged blackbird
Anas platyrhynchos	mallard
Cardinalis cardinalis	northern cardinal
Cathartes aura	turkey vulture
Cistothorus palustris	marsh wren
Cyanocitta cristata	blue jay
Dendroica coronata	yellow rumped warbler
Dumetella carolinensis	grey catbird
Mniotilta varia	black and white warbler
Pipilo erythrophthalmus	eastern towhee
Poecile articapilus	black-capped chickadee
Quiscalus quiscula	common grackle
Spinus tristis	american goldfinch
Spizella passerina	chipping sparrow
Spizella pusilla	field sparrow
Troglodytes aedon	house wren
Turdus migratorius	american robin
Tyrannus tyrannus	eastern kingbird
Zenaida macroura	mourning dove
Zonotrichia albicollis	white throated sparrow
Zonotrichia leucophyrys	white crowned sparrow

Amphibians and Crustaceans	
Species	**Common Name**
Astacoidea	crayfish
Bufo americanus	american toad
Eubranchus	fairy shrimp
Lithobates sylvatica	wood frog
Notophthalmus virdescens	Eastern newt
Pseudacris maculata	boreal chorus frog
Insects	
Species	**Common Name**
Anax junia	green darner
Bombus	bumble bee
Bombus impatiens	common eastern bumble bee
Cercyonis pegala	common wood-nymph butterfly
Chauliognathus pennsylvanicus	goldenrod soldier beetle
Chlosyne nycteis	silvery checkerspot butterfly
Cisseps fulvicollis	yellow collared scape moth
Danaus plexippus	monarch butterfly & larvae
Gerridae	water strider
Papilio glaucus	eastern tiger swallowtail
Phyciodes tharos	pearl crescent butterfly
Satyrodes eurydice	eyed brown butterfly
Sphex ichneumoneus	grean golden digger wasp
Vanessa atalanta	red admiral butterfly

Above: American toad at King's Corner

Left: Chimney crayfish in Sedge Meadow wetland

Environmental Corridors

Although King's Corner is not mapped by the Southeastern Regional Planning Commission as an environmental corridor, there were several migratory species observed by sight or sound. Because the site is located 2.3 miles west of the Lake Michigan shoreline it is attracting migratory species and could be considered a migratory stopover site. Of the migratory species observed included both song birds and dragonflies. Birds observed that would be migrating included several warblers and sparrows. We observed both white crowned sparrows and white throated sparrows in nearly all the shrubby areas of King's Corner along with a yellow rumped warbler and a black and white warbler along the edge of wooded wetland. The green darner dragonfly, which was observed at King's Corner, is a species of dragonfly that migrates. There are two different populations in Wisconsin, one migratory and one resident.

4. Trails- Current Condition

Throughout the 35-acre property there are ~ 1 mile of horse trails that are mowed and maintained by members of the Caledonia Conservancy. The horse trails are used by area equestrians for individual riding as well as organized group rides. There are several horse jumps built from logs. The main trails start on the west side of the property and head east towards the corner of STH 31 and 5 Mile Rd where a large mowed grass area with picnic tables is maintained. There are three entrances to the trail system all of which start on Crown Chase Dr. The two most northern entrances are the start of the two main trails on the property. The southern entrance on Crown Chase Dr. connects to the trails on the property, but also connects to a larger network of trails throughout the area. This outer trail system connects the King's Corner property to other equine properties such as the Racine County Pony Club and Keland Farms.

Horse trail signage

Muddy trails in spring

The horse trails wind through all habitats on the property, including the 9 acres of wetlands delineated by Heather Patti, PWS. There are multiple areas on the two main trails that where characterized by either soft soil or standing water. These "wet spots" were found in both wooded and prairie habitats as well as within and outside of the delineated wetland area. Going off the horse trails are ~ 1 mile of walking trails. These trails are marked with signs reading "Hiking Trail" "Walking

Path" or "Foot Path". As opposed to the horse trails on the King's Corner property, the walking trails have not been as well maintained and some areas overgrown with protruding tree branches in the wooded areas and grasses and other vegetation in the prairie. The wooded walking trails on the property lead to a cleared-out area with a dilapidated park bench although getting to this area calls for following severely overgrown trails many of which seem to be no more than game trails.

Thompson and Associates spent considerable time mapping existing trails and met with Wendy McCalvey and Fran Martin and others several times to understand proposed trails. The proposed trail map shown in Figure 6 is intended to separate the horse trail from walking trails. Walking trails are intended to circle around at several points to allow for shorter or longer walks. There are also openings proposed for picnicking and educational use. Trail crossings of wetlands are discussed below. The trails (Figure 6) should be modified to minimize wetland crossings.

Horse jump on King's Corner trail

5. ECOLOGICAL RESTORATION PLAN

Restoration Opportunities

The **positive ecosystem services** currently present at King's Corner include:

1. King's Corner is well- placed on the landscape with tributaries flowing to the lower reach of Root River and 2.3 miles west of Lake Michigan. King's Corner woodlands and wetlands soak up rainwater- providing riparian buffers to the intermittent stream and water quality and floodwater services to the Root River.
2. Diverse vegetation and good habitat structure is present in the coniferous and deciduous woodlands with a variety of trees and a native shrub layer including gray dogwood, and the wooded and sedge meadow wetland include native forbs providing good pollinator habitat.
3. Groundwater sheen on flooded wetland in spring and the presence of marsh marigold indicates some degree of groundwater discharge into site.
4. Woody debris on the ground contributes to amphibian habitat, bird habitat (provides shelter, site for insects, fungi etc.)
5. Site functions a migratory bird stopover providing food and shelter during migration; also provides songbird nesting habitat.

6. Site within the region for the federally endangered rusty patch bumblebee and may attract this insect over time.
7. Attractive site that could showcase wetland, woodland and meadow functions with easy access including a parking area and passive park (horse trail, walking trails, benches and picnic tables, planned educational signs and additional resting areas).
8. Good opportunities for outdoor education due to the accessibility of the site with the gravel parking lot and maintained horse and walking trails, as well as the variety of habitats represented.

Sedges in Sedge Meadow Unit

The **evident disturbances** present at King's Corner include:

1. Reed canary grass primarily in open canopy wetlands.
2. Other invasive species present including common buckthorn, honeysuckle, garlic mustard, purple loosestrife, and *Phragmites* or giant reed grass.
3. Emerald Ash Borer has killed green ash trees in the Deciduous Woodlands.
4. Property boundaries not visible within the park.
5. Eroded or muddy trails in low lying wetland crossings, particularly in spring.

Restoration Goals:

1. Enhance ecosystem services at King's Corner without losing the current positive functions. Enhance wildlife habitat; migratory songbird and pollinator habitat.

2. Connect people to nature: Establish an aesthetically pleasing, ecologically managed, and accessible park that provides a public setting for wildlife observation and education. Include planning for trail distinctions between horse and hiking trails and wetland crossings accessible for horses. Create educational opportunities including signage, tours, pollinator gardens.

Restoration and Conservation Strategies for King's Corner:

1. **Tasks to restore King's Corner with limited funding:**
    - Control invasive species with volunteer "weed-outs" – priorities listed below.
    - Plant native forbs, trees, and shrubs to enhance diversity with volunteer work days.
    - Continue to remove trash.
    - Modify trail plans to park with consideration of year-round access and avoidance of seasonally wet areas.
    - Install wetland crossings where necessary, fund over time
    - Manage new planting around parking lot as native prairie to support pollinators.
    - Locate and mark property corners where trails are close to boundary.
    - Remove dead "hazard trees" where trail is close, leave other dead trees to fall in place.
    - Locate oak seedlings and cut out woody vegetation that would block light from reaching them.

Oak seedling in Deciduous Woodland

2. **On-going management of King's Corner provides ecosystem services to the Root River Watershed**
    - Investigate funding opportunities as part of the Root River Watershed Plan (SEWRPC, 2014).
    - Found at: http://www.sewrpc.org/SEWRPC/Environment/Root-River-Watershed-Restoration-Plan.htm

6. ADAPTIVE MANAGEMENT OF SITE

King's Corner should be monitored, and adaptive management should be used to identify problems or threats as they develop and implement management.

Meadow Unit- Gravel Parking Lot Area

With the new parking lot installation, there are opportunities to draw families, equestrians, and nature lovers to King's Corner. Installation of pollinator habitat, education signage about pollinators and pollen sources, and trailhead with trail markers would bring people to the property. All these additions would attract visitors of all varieties and peak their interest in King's Corner.

Above: Gravel parking lot and access

Below: Bumble bee on boneset in wetland

With the advent of the rusty patched bumble bee as the first federally endangered bee species, pollinators are at the forefront of conservation. With the open areas surrounding the parking lot, nectar sources would be a great addition for support of not only the rusty patched bumble bee, but other pollinators. Including native milkweed species and late flowering native wildflowers would also support monarch butterflies. This pollinator habitat installation could be a promotion for neighbors and visitors to consider installations on their own properties.

Installation of educational signs on the importance of pollinators and pollen sources could provide information for visitors and display King's Corner as an advocate for pollinators and their habitat. The displays could provide information on various native wildflowers including milkweed species. They could also illustrate bumble bee identification for families to learn how to determine what species of bumble bee they observe. Another demonstration could include education about the importance of pollinators as food sources for other species such as migrating birds, pollination of human food supply, and even aesthetic enjoyment.

To add to the aesthetics of the parking lot area, a trailhead display with an updated trail map would draw people to visit King's Corner. Including a legend with horse jumps, trail distinctions, and even the differing habitats on the property would intrigue visitors. Providing horse jumps on the trailhead map would differentiate horse trails from footpaths.

Future Building Plans

Black eyed Susan with Soldier beetle

As Caledonia Conservancy develops plans to create more visitor amenities including a building, gazebo etc. using best management practices for managing erosion and compaction for construction will be advisable.

Incorporating green practices including rain barrels and rain gardens will both protect the site and provide visual showcases for visitors to demonstrate these practices. A pollinator / rain garden would enhance any building site plans.

Trail Maintenance

There are several areas of the established trails that are observed as being rutted, too wet, or impassable due to standing water. Rerouting trails to avoid wet areas is a priority, or using signage to close off rutted trails in wet seasons.

For safety and ease of access, consider removing hazard trees nearby with the potential to block trails or drop limbs.

Any new trail development should include a trailhead map and trail markers. Each trail should be clearly defined. Trails can be distinguished by color or symbol on the trailhead map and continue along the route. Clear trail markers at every trail intersection should be installed for ease of use and visitor enjoyment. With trail markers along the route a visitor is more likely to return to King's Corner for another pleasurable experience.

Wetland Crossing

A wetland crossings for the trail leading out to the parking lot area is a priority to allow the paths to be passable by human or horse. A WDNR recreational trail permit may be required for such an occasion. There are a couple of options for wetland crossings including timber mats or a Wickcraft boardwalk as well as a culvert crossing.

Wetland Crossing for trail system

1. Timber mats are installed prior to heavy machinery work begins on large scale projects. These are easily attainable and would withstand multiple horses crossing them. Furthermore, they would be replaceable if normal wear and tear results in damage. If the mat extends from bank to bank it would not require a WDNR wetland permit.

2. Wickcraft boardwalks (2317 Daniels St., Madison, WI 53718; 800-549-7694) have a tubular structural steel frame. They are designed to shift surface loads while preventing upheaval during high water events. The deck panels can be built of different materials of your choosing including plastics, metals, or woods. The deck panels would easily drop into the steel frame. The deck can be installed from the bottom to eliminate the screw heads on the surface of the deck. This structure would likely not require a WDNR wetland permit.

3. Culvert and earthen fill: A WDNR wetland permit could be obtained to allow a culvert and gravel or earthen crossing of the wetland. The recreational permit is a General Permit for <10,000 square feet of wetland fill. Assuming the wetland crossing is about 30 feet long and the crossing could be 12 feet wide, a fill permit of less than 400 square feet is well within the GP parameters.

Meadow and Sedge Meadow Management

Fire was frequently used in open prairies prior to European settlement. Indigenous people would set fires to manage the landscape. This method keeps woody encroachment at bay, stimulates native plant growth, and reduces litter and thatch from old vegetation. When utilized in prescription, burns can greatly benefit not only the vegetation, but the wildlife as well. This property is within the hardwood forest of sugar maple, basswood and oaks that was protected from frequent fire prior to European settlement. However, the open meadow is best managed by fire to retain habitat diversity on the site.

Bur oak sapling in Meadow Unit

There are a number of oak seedlings in the Meadow that can be encouraged. A few open grown oaks in the Meadow would provide biodiversity and aesthetic value.

Blue vervain

Fire was initiated in April, 2018 with a patchwork of burned areas and unburned areas which is recommended. A prescribed fire does not need to result in 100% black, or a completely charred unit to be successful. The mosaic result is better for wildlife and can provide the entire area greater diversity. When a large area is divided into smaller units by fire breaks, there are opportunities for resident wildlife to find refuge. This also applies to those unburned portions of each smaller unit as well. The unburned portions of the smaller units may result in a different variation of plants depending on the time of year the burn takes place.

Prescribed fire can be initiated up to every three years if appropriate with good fuel and within prescription conditions. The next burn could be undertaken in spring, 2021 or 2022.

The invasive species in the HW 31 ditch are a priority to manage so that they do not spread into the meadow or sedge meadow. Purple Loosestrife within the Sedge Meadow is also an immediate concern.

Currently the south eastern portion of the Meadow- Sedge Meadow Unit is not burned. If possible, a fire break should be established with the south property line so that it can be included in burn management. Otherwise it would be advisable to monitor the sandbar willow in the SE portion of the site and possibly limit it from further spreading.

The dirt piles on the eastern edge of the Meadow Unit near HW 31 should be leveled.

Prescribed burn in spring, 2018 at Meadow Unit

Above: Prescribed burn in spring, 2018 at Meadow Unit- good technique with "skips" allowing for wildlife refugia

Left: Sandbar willow in SE portion of wetland- monitor stand to determine if some control needed.

Conifer and Deciduous Woods Management

Considering the pre-settlement conditions would have been dominated by oak trees, managing the wooded areas for oak regeneration is ecologically important. This would include removal of invasive shrubs, giving existing oak trees room for growth, and potentially interplanting. The Conifer and Deciduous Woods as well as the Meadow contain the oak seedlings. With the light openings from dying green ash there is a potential for oak regeneration. However, the light gaps will also favor common buckthorn which will outcompete oak seedlings.

Deciduous Woodland Unit

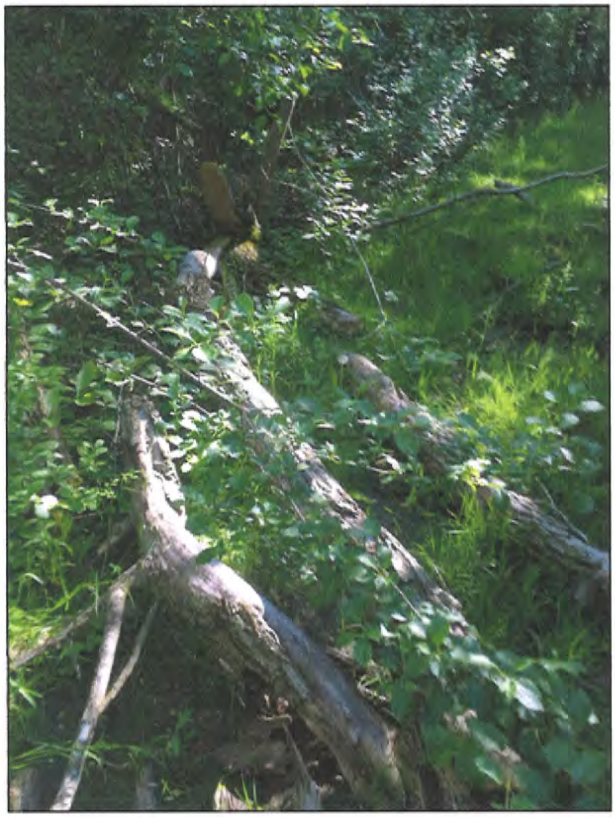
Removal of shrub species that are not native would be a great starting point for supporting oaks. Species like common buckthorn, honeysuckle, and multiflora rose are big invaders of oak woodlands. Removal of these species will provide opportunity for oak regeneration. Locating oak seedings and prioritize them form invasive woody species removal.

Any oak saplings observed could be protected from wildlife to ensure survival. Taking inventory and providing any oaks with a simple chicken wire cage would result in greater yields and a lesser need for interplanting. Interplanting can be done in addition to protection of existing trees to account for any loss of resident oak saplings.

With the ash tree damage in the Deciduous Woods Unit there will be continuous management needed to ensure safety of visitors with the opportunity to provide specialized habitat. There is an abundance of dead ash trees with the potential of falling over trails, but there are others deeper within the woods that could provide habitat. Leaving standing dead ash would be greatly beneficial to woodpeckers and other cavity nesting birds as well as small mammals. Those with potential of blocking trails could be removed to prevent injury or further damage to surrounding trees and shrubs if they fall unexpectedly. The woody debris can also be left on site for other critters to use for shelter or food for microorganisms to break down and eventually return nutrients to the soil.

Woodpecker holes in dead conifer- provides nest cavity or roost for another species

The majority of the conifer species present are not native, and were deliberately planted. We do not advise removing these trees however as they are providing important wildlife structure and biodiversity in the site. Rather, we recommend interplanting and encouraging oak seedlings and other native trees in the Deciduous Woodland area, and maintaining the Coniferous Woodland as is.



Above left: dead wood allowed to lay on the forest floor provides habitat

Above: Coniferous Woodland

Left: Horse jump in trail through Coniferous Woodland

Trees and shrubs native to Racine County are listed below and can be used in additional plantings. Those trees highlighted in orange are more southern in range and could adapt to a warmer climate.

Native Tree and Shrub Species		
Scientific Name	**Common Name**	**Preferred Environmental Conditions**
Trees		
Acer rubrum	Red maple	Dry to wet soils; shade to full sun; Southern
Acer saccharinum	Silver maple	Moist soils; partial shade to full sun; Southern
Acer saccharum	Sugar maple	Moist to dry soils; partial shade to full sun
Carya ovata	Shagbark hickory	Dry to moist soils; partial shade to full sun: Southern
Celtis occidentalis	Hackberry	Moist woods, floodplains; partial shade to full sun: Southern
Corlylus americana	American hazelnut	Moist soils; partial shade to full sun
Juglans nigra	Black walnut	Moist soils; full sun
Prunus serotina	Black cherry	Moist to dry soils; partial shade to full sun
Quercus alba	White oak	Moist soils; shade to full sun
Quercus bicolor	Swamp white oak	Moist to wet soils; partial shade to full sun: Southern
Quercus macrocarpa	Bur oak	Moist to dry soils; full sun: Southern
Quercus rubra	Red oak	Moist to dry soils; shade to full sun
Salix nigra	Black willow	Moist to wet soils; partial shade to full sun
Shrubs		
Amelanchier canadensis	Serviceberry	Dry to moist soils, open to partial shade
Celtis occidentalis	Hackberry	Dry to wet soils; partial shade to full sun
Cornus amomum	Silky dogwood	Wet to Moist soils; shade to full sun
Cornus sericea	Red-osier dogwood	Wet to moist soils; shade to full sun
Physocarpus opulifolius	Ninebark	Moist to dry soils; shade to full sun
Rhus glabra	Smooth sumac	Moist to dry soils; partial shade to full sun
Rhus typhina	Staghorn sumac	Moist to dry soils; partial shade to full sun
Sambucus canadensis	Common elderberry	Dry to wet soils; shade to full sun
Viburnum lentago	Nannyberry	Moist to dry soils; shade to full sun
Viburnum trilobum	American highbush cranberry	Moist soils; partial shade to full sun

Invasive Species Management

Purple loosestrife in HW 31 ditch

Immediate Priorities for management

Meadow Ecological Unit

- **Ditch on HW 31:** Invasive species include purple loosestrife, *Phragmites*, and teasel
    - The areas are fairly small, and their removal is a priority before these invasive species make their way onto the site.

Sedge Meadow Wetland Ecological Unit

- **Southeastern sedge meadow edges: Control purple loosestrife.** Hairy willow herb was observed and previously pulled. This is a new invasive to Racine County in limited areas.
    - Continue to monitor to ensure it is still under control

Conifer Woodland Ecological Unit

- **Far west boundary near Crown Chase Drive:** Crown vetch was observed in 2017
    - Control small population before in becomes larger by either hand pulling or applying herbicide before plants are in flower to avoid harm to bumble bees

- **Invasive Shrubs:** Remove large buckthorn or honeysuckle and herbicide stumps to allow for native shrub growth and establishment
    - Take care to protect any oak seedlings, do not remove gray dogwood or other native shrubs important to wildlife.

Deciduous Woodland Ecological Unit

- **Dying green ash:** remove hazard trees from trail areas. Allow wood to rot on site to provide animal and insect shelter.
- **Invasive Shrubs:** Remove large buckthorn or honeysuckle and herbicide stumps to allow for native shrub growth and establishment.
    - Take care to protect any oak seedlings, do not remove gray dogwood or other native shrubs important to wildlife.

All King's Corner Ecological Units

- **Overall site:** watch out for garlic mustard and Dame's rocket
    - Along with any other non-native/invasive species that could potentially threaten native vegetation establishment

7. LONG TERM CONSIDERATIONS

This plan discusses shorter term goals; however, the following are longer term considerations for the continued ecological health of King's Corners.

Climate Change: Climate Change is a threat that will continue to unfold over the next half century. According to the **Wisconsin Initiative on Climate Change Impacts** the climate at King's Corners is projected by average of the climate models to be more similar to Akron, Ohio by 2046-2065 (found at https://www.wicci.wisc.edu). Other models calculate the climate to be more extreme and similar to current West Virginia's climate.

The mapping tool on WICC shows various models of climate change for 2046-2065 with the red line as the average of models. King's Corners, Caledonia to the left is projected to be similar to mid- Ohio (red line) or West Virginia.

The WICCI scientists have generated Climate Vulnerability Assessments for various communities. The appendix includes the assessment for Southern Lowland and Upland Forests. The native tree list above highlights in orange the native trees more common in southern landscapes that the WICCI scientists recommend favoring as an adaptation technique.

Among possible impacts projected are that with shorter and wetter springs the opportunities for prescribed fire may change and the prescribed burn season in spring may be shorter and more unpredictable. Mowing may be needed in early spring to augment burns if they are not feasible.

With reduced snowpack in winter non native species may be more aggressive. Deer populations may increase with moderate winters, increasing browse on desirable species including oaks. Undesirable insects and diseases may also increase due to warmer winters. Southern invasive species will move north over time, prompt management of new invaders will be critical to maintain diversity.

Invasive Species

The Invasive Plants Association of Wisconsin (IPAW) and Wisconsin DNR websites have up-to-date information on invasive species control and are recommended as references as problems arise (visit http://www.ipaw.org/ or http://dnr.wi.gov/topic/invasives).

Wetland Invasive Species

The top three invasive species in Wisconsin wetlands are reed canary grass, purple loosestrife, and *Phragmites australis* or giant reed grass. Reed canary grass may have been present in local wetlands for decades following disturbances, possibly planted directly into wetlands. Purple loosestrife is a more recent invader, and *Phragmites* is increasing in invasion. Reed mannagrass (*Glyceria maxima*) is a relatively new but aggressive invader with potential to spread widely. Controlling any of these plants in the early stages is critical to preserving native plants. If these invasives are allowed to grow unchecked they will rapidly expand and choke out native plants.

Reed Canary Grass (*Phalaris arundinacea*):

Reed canary grass is a perennial, sod-forming grass that dominates a large number of wetlands across the Midwest. The grass forms dense stands that exclude native vegetation and provide little benefit to wildlife. Most wetlands that have been overtaken by reed canary grass may be beyond the scope of immediate intervention. Allowing native shrubs and trees to grow and shade reed canary grass over time is one response to the problem. Native trees and shrubs may be directly planted if feasible.

Repeated application of herbicides is used to control smaller stands of reed canary grass. Great care must be taken to apply herbicides appropriately by an applicator familiar with reed canary and native vegetation to avoid damaging native plants. Large infestations of the grass will likely require applications over many years to be effective. The herbicide glyphosate (Rodeo or AquaNeat) is a non-selective herbicide that kills or injures nearly all plant species, so it must be applied carefully. Rodeo and AquaNeat are appropriate for use over water. Apply to the grass in a 2% solution (1.08% active ingredient) mixed with a surfactant.

Depending on the size and distribution of your infestation, the herbicide can be foliar-applied using a dripless wick applicator, backpack sprayer, or boom sprayer.

Reed canary grass is distinguished by its tall ligule (membrane inside the leaf sheath that surrounds the stem)

Reed canary is the earliest plant to green and goes brown very late in fall. Herbicide application either early in spring before any other plants have emerged or in fall after all native plants are dormant is a good strategy to avoid damaging native plants. Fall is especially appropriate as the grass pulls sugars down into its roots during this time. Herbicide is carried to the roots along with sugars, more effectively killing the plant.

For large stands, you may also combine an herbicide treatment with another control treatment for better results. Cut the grass and allow to regrow to boot height. This helps obtain better herbicide coverage and reduce total herbicide use, since you are spraying only living green RCG that is 12 inches tall vs. 6-foot-tall stems mixed with old dead leaves.

Sethoxydim (Vantage®) is a grass-specific herbicide that has been used to kill RCG with some success, but it is also not labeled for aquatic use and cannot be used over water. Follow-up monitoring and treatment is necessary for several years to ensure complete eradication.

Purple Loosestrife (*Lythrum salicaria*):

Purple loosestrife flowers

Purple loosestrife is a tall plant with a brightly colored purple flower spike. The plant spreads rapidly by seed and can quickly overtake native vegetation. Any small stands of purple loosestrife can be controlled by herbicide. Control is usually done from mid-July and mid-August. First break off any flower heads and bag them to take off site. Paint the stem from top down about 3 feet with glyphosate ("Rodeo" or "Aqua Neat" for use over water) in a 10% concentration of the active ingredient. Use a paintbrush to apply so the herbicide will be restricted to the plant. The applicator should be sure to paint as many stems as possible. Color dye may be added to the herbicide to aid in seeing where herbicide has been applied. Check the treated area in 2 weeks to assess the kill and reapply the herbicide to plants still alive.

Very large stands of purple loosestrife may be too widespread to easily treat with herbicide. Biological control has been introduced on purple loosestrife. *Gallerucella sp.* beetles have been imported from Europe after years of extensive research to determine their safe use. These beetles feed exclusively on purple loosestrife and can be purchased or grown for release in large purple loosestrife plots. If the release is successful they rapidly consume the

loosestrife and destroy the flowing heads. Over time the size of the loosestrife stand is dramatically reduced. Check with the DNR (www.dnr.wi.gov) for more information on how to purchase the beetles.

Phragmites or Common Reed Grass (*Phragmites australis*):

Phragmites is a tall grass with a plumy seed head, towering up to 20 feet (generally 6-8 feet tall). A single plant can continue to send out shoots and take over a large space in a very short period of time.

Phragmites must be controlled early in the invasion as it towers over native vegetation, choking it out. Using chemical means, follow the directions in the reed canary section to apply "Rodeo" or "Aqua Neat", however apply herbicide earlier in the year if possible when the plant is not too tall. By late summer and fall the towering plant is very difficult to spray.

Reed Mannagrass (*Glyceria maxima*)

The first US sighting of reed mannagrass occurred in Racine County in 1975. Since then, the grass has been documented in four other counties in southeast Wisconsin and four counties in central and northern Wisconsin. Reed manna grass invades both disturbed and undisturbed wetland areas including swamps, creeks, lakes, ditches, and other habitats. It forms dense stands that exclude native wetland vegetation and degrade wildlife habitat, as the grass is a poor food source and nesting substrate.

Because reed manna grass is a relatively new invasive in the US, effective control methods are still in development. One option is cutting the grass several times a year, although it is difficult to completely kill the grass with this method. Flooding cut grass can aid in preventing regrowth. To herbicide grass, use a 3% solution of glyphosate ("Rodeo" or "Aqua Neat") during early summer and late summer months and follow up for several years. Grazing is not a recommended form of control, as the grass may be poisonous to cattle. If pulling *Glyceria* by hand, be sure to remove all pieces of the roots or the grass may re-sprout.

Hairy Willow Herb (*Epilobium hirsutum*)

Hairy willow herb is a semi-aquatic perennial forb that grows in open, wet habitats. The plant can grow up to 3-6 feet in height and is recognized by fine, soft hairs covering the plant entirely. The flower is pink, four-parted with a shallow indentation.

Hairy willow herb can be hand pulled or dug up for removal. It can also be mowed within the first three weeks from the time the forb to eradicate seed dispersal yearly. Using chemical means, follow the directions in the reed canary section to apply "Rodeo" or "Aqua Neat", however apply herbicide earlier in the year if possible when the plant is not too tall. Once the seed has matured, not much can be done besides the collection of seed heads.

Upland Invasive Species

A few invasive species common within upland communities include common buckthorn, Russian olive, honeysuckle, crown vetch, and bird's foot trefoil. Each of these invasive species can overtake native vegetation, damaging wildlife habitat and narrowing plant and animal diversity.

Control in the early stages of invasion is critical to keeping a small problem from becoming a large one.

Orange color under bark surface

Common Buckthorn (*Rhamnus cathartica*):

Common buckthorn is a shrub / small tree that grows up to 25 feet tall. The shrub invades thickly in forests, prairies, fields and roadsides, blocking light to understory plants and preventing native tree regeneration. To identify the tree, note the leaf shape and veins, light lines on bark, spines on the twigs and orange color under the bark (see photos).

Removal of buckthorn should begin with the largest shrubs, especially those with berries. Cut the main stem at 6" or less and paint the stump thoroughly with a 12 to 15% concentration of triclopyr "Garlon". Adding a color dye will aid in through treatment. Cut material can be placed in a pile and burned, or shrubs with no berries can be allowed to decompose on the ground. Do not cut without applying herbicide or the plant will resprout and likely end up denser than before. Plants may be treated in late fall or winter when other vegetation is dormant.

White lines (lenticels) on bark

Another effective way to control buckthorn is to treat basal bark with "Garlon" mixed in blue bark oil. Treatment is best done in the late fall or winter when native vegetation has died back and will not be affected. Because buckthorn plants retain their leaves long after native vegetation has lost its leaves, they are readily recognized in the late fall. A concentration of 12-15% triclopyr (active ingredient) "Garlon" in blue bark oil is recommended by the manufacturer. Use the herbicide in a backpack sprayer with a nozzle that produces a solid cone or flat fan spray. Spray the lower part of the trunk in such a manner that it becomes thoroughly wet, including the root collar, but not to the point of runoff. Each stem of the plant must be treated. Properly done, this basal bark treatment is extremely effective, and the plant will not leaf out the following growing season. Once dead, the plant can be cut and removed or allowed to stand to rot.

Russian Olive (*Elaeagnus angustifolia*)

Russian olive is a small, deciduous tree that can grow to a height of 30-foot. The tree's twigs have silvery scales and terminal spines. The Russian olive has silvery foliage as well with a greenish-grey color. The flowers are yellow, shaped like bells, and very fragrant when blooming in late spring. The olive fruits are also yellow and are often dispersed by birds.

Using chemical means, follow the directions in the common buckthorn section to apply triclopyr either on cut stumps or in frills of basal bark. Cut material can be placed in a pile and burned, or shrubs with no berries can be allowed to

decompose on the ground. Do not cut without applying herbicide or the plant will resprout and likely end up denser than before. Plants may be treated in late fall or winter when other vegetation is dormant.

Hybrid Bush Honeysuckle (*Lonicera x bella*):

Like buckthorn, honeysuckle is a dense shrub capable of shading out native wildflowers and tree saplings and must be removed to encourage native plant growth. The shrub grows 3-10 feet tall and has red to orange berries that grow at leaf axils along its branches. Tartarian honeysuckle invades forest edges, woodlands, fields, pastures, fens, bogs, and roadsides.

Do not cut stems without application of herbicide or the plant will vigorously re-sprout. Honeysuckle can be cut with either a brush cutter or a hand lopper. If a stem is too large to cut with a lopper, a handsaw can be used. With a brush cutter, it is important that the cutting blade be sharp. With a dull blade, the cut stems are often shredded and splintered, making them harder to treat with herbicide. For the largest stems, a chain saw may be necessary. No matter which cutting method is used, it is essential that the stumps be cut sharp and straight across, so that the cut stumps can be treated with herbicide.

Treat cut stumps with a 20% solution of glyphosate ("Roundup"). The concentration given here is percent of the active ingredient. Concentrated glyphosate, such as Roundup Ultra, is around 40% out of the bottle, so that a 20% solution can be made by mixing equal parts of glyphosate and water. If a spray bottle is used, place the tip of the spray bottle onto each cut stump, press gently to bring up several drops of solution, and spread them around the entire cut stump with the tip of the bottle.

As with buckthorn, honeysuckle can be cut at any time of the year. Winter is an excellent time to cut, and glyphosate works quite well then. Honeysuckle is very persistent and will re-sprout readily if not treated with herbicide.

Crown Vetch (*Coronilla varia*)

Crown vetch is a European legume species that was introduced along roadsides and rights-of-way for slope stabilization and erosion control. Flowers have five parts and are pink to white in color. The plant can grow 1-2' tall and produce a thick matting of the vine. Crown vetch is

spread by rhizomes of up to 10 feet and seeds with the seeds being viable in the soil upwards of 15 years. This allows the plant to produce extremely dense colonies.

For small populations, hand pulling can be effective if the entire root structure is also removed. The population can be covered with black plastic for at least one growing season or mowed multiple times late in the spring yearly for several years once the plant has leafed out. Fire can be effective in late spring as well but could potentially result in germination of the seeds. A handheld propane torch can be used for seedling treatment.

For chemical control, foliar spray of herbicide should be applied before flowering with the leaves being wetted entirely without herbicide dripping off the plant. To spray crown vetch just before flowers are present can avoid any harm to pollinators who are extremely attracted to this flower. A concentration of 2% active ingredient of triclopyr or glyphosate can be used when the plant is actively growing.

Bird's Foot Trefoil (*Lotus corniculatus*)

Bird's foot trefoil is a non-regulated terrestrial invasive species according to Wisconsin DNR. This is also a legume species with a bright yellow flower with five parts. The leaves are distinguishable from other legumes by their compound five leaflets. This plant tends to smother anything less than one foot tall due to its sprawling growth characteristics.

For small populations, hand pulling can be effective if the entire root structure is also removed. The population can be covered with black plastic for at least one growing season or mowed multiple times late in the spring yearly for several years once the plant has leafed out. Fire can be effective in late spring as well but could potentially result in germination of the seeds. A handheld propane torch can be used for seedling treatment.

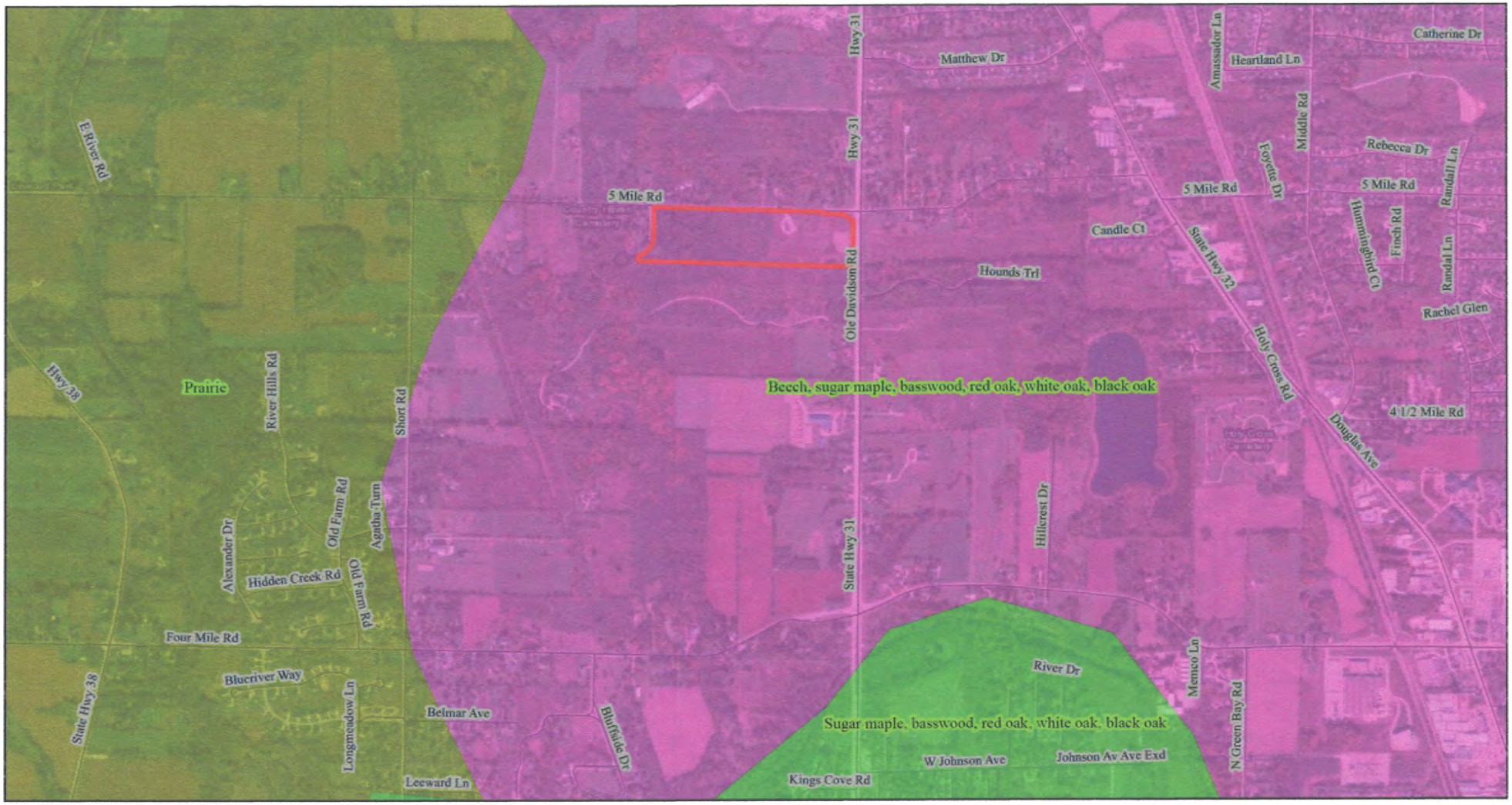
For chemical control, foliar spray of herbicide should be applied before flowering with the leaves being wetted entirely without herbicide dripping off the plant. To spray crown vetch just before flowers are present can avoid any harm to pollinators who are attracted to this flower. A concentration of 2% active ingredient of triclopyr or glyphosate can be used when the plant is actively growing.

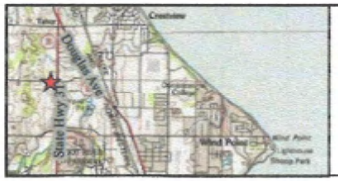
References:

Holm, Heather. 2014. Pollinators of Native Plants. Pollination Press, LLC MN. 305 pages.

Tallamy, Douglas W. 2007. Bringing Nature Home. Timber Press, Portland OR. 358 pages.

Root River Watershed Plan. 2014. Southeastern Wisconsin Regional Planning Commission.





Legend

- Project Area
- Beech, sugar maple, basswood, red oak, white oak, black oak
- Prairie
- Sugar maple, basswood, red oak, white oak, black oak

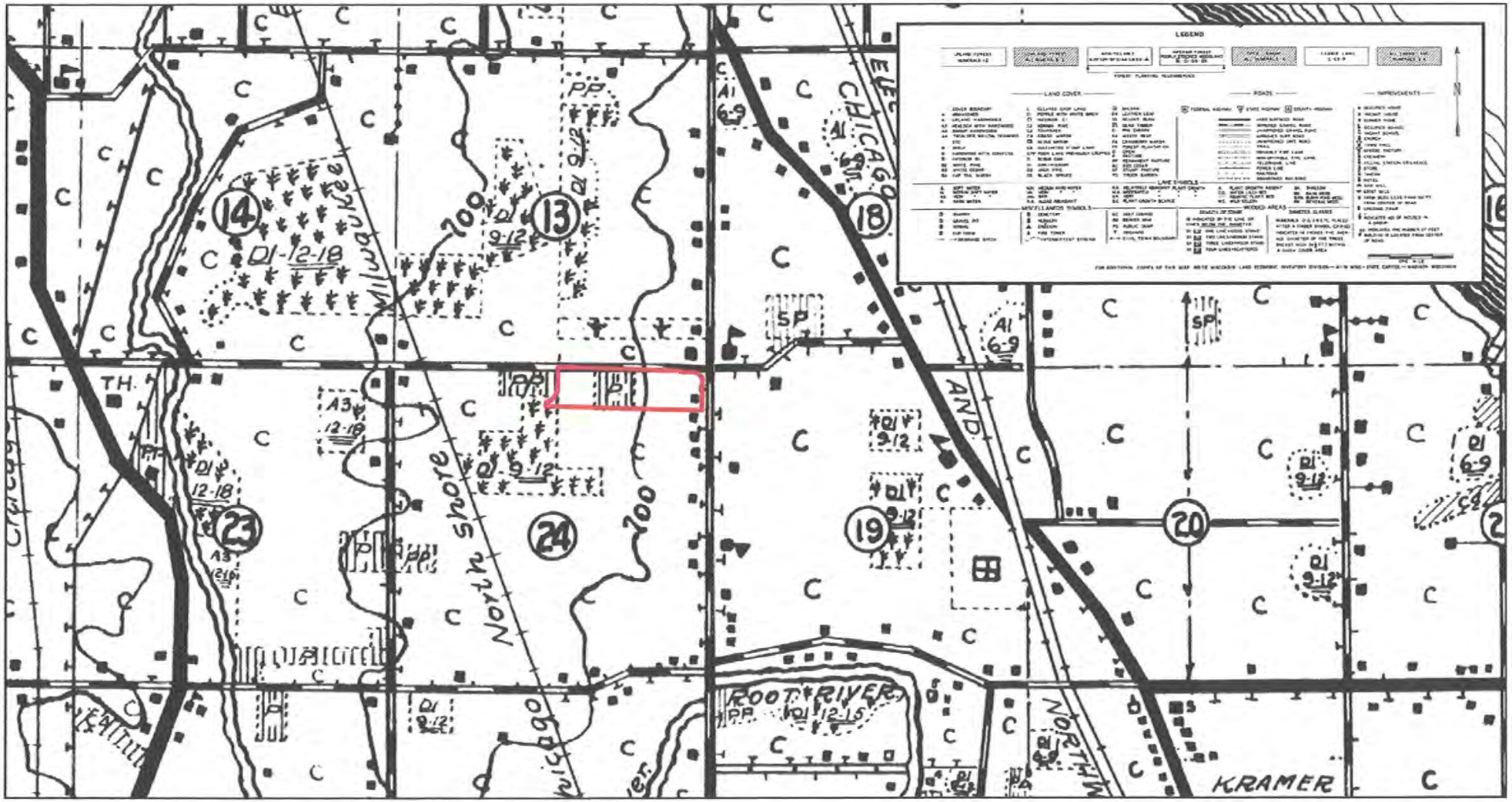
N

NW 1/4 of the NE 1/4 & NE 1/4 if the NE 1/4 of Section 24 in Township 04N and Range 22E Caledonia, WI

Kings Corner Pre-Settlement Vegetation
Figure 1

0 375 750 1,500 2,250 3,000 Feet
0 110 220 440 660 880 Meters

Map Source: Bing Aerial Imagery



Legend

Project Area

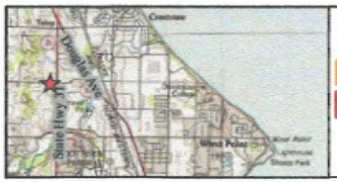
N

NW 1/4 of the NE 1/4 & NE 1/4 if the NE 1/4 of Section 24
in Township 04N and Range 22E
Caledonia, WI

Kings Corner
1934 Bordner Land Economic Inventory
Figure 2

0 500 1,000 2,000 3,000 4,000 Feet
0 150 300 600 900 1,200 Meters

Map Source: 1934 Bordner Land Economic Inventory



Legend

- NRCS Soils
- Project Area

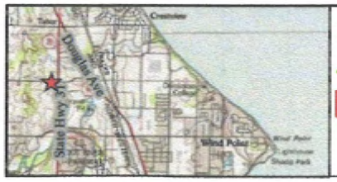
N

NW 1/4 of the NE 1/4 & NE 1/4 if the NE 1/4 of Section 24
in Township 04N and Range 22E
Caledonia, WI

Kings Corner NRCS Soils
Figure 3

0 55 110 220 330 440 Feet
0 15 30 60 90 120 Meters

Map Source: Bing Aerial Imagery



Legend

Wetland Line Delineated By R.A. Smth National 2015

Project Area

N

NW 1/4 of the NE 1/4 & NE 1/4 if the NE 1/4 of Section 24
in Township 04N and Range 22E
Caledonia, WI

Kings Corner Wetland Line
Figure 4

0 55 110 220 330 440 Feet
0 15 30 60 90 120 Meters

Map Source: Bing Aerial Imagery

Legend

- Project Area
- Conifer Woodlands
- Deciduous Woodlands
- Meadow
- Sedge Meadow Wetland
- Wooded Wetland
- Mowed Unit
- Parking Area

N

NW 1/4 of the NE 1/4 & NE 1/4 if the NE 1/4 of Section 24
in Township 04N and Range 22E
Caledonia, WI

Kings Corner Ecological Units
Figure 5A

0 55 110 220 330 440 Feet
0 15 30 60 90 120 Meters

Map Source: Bing Aerial Imagery

Legend

- Project Area
- Ecological Units

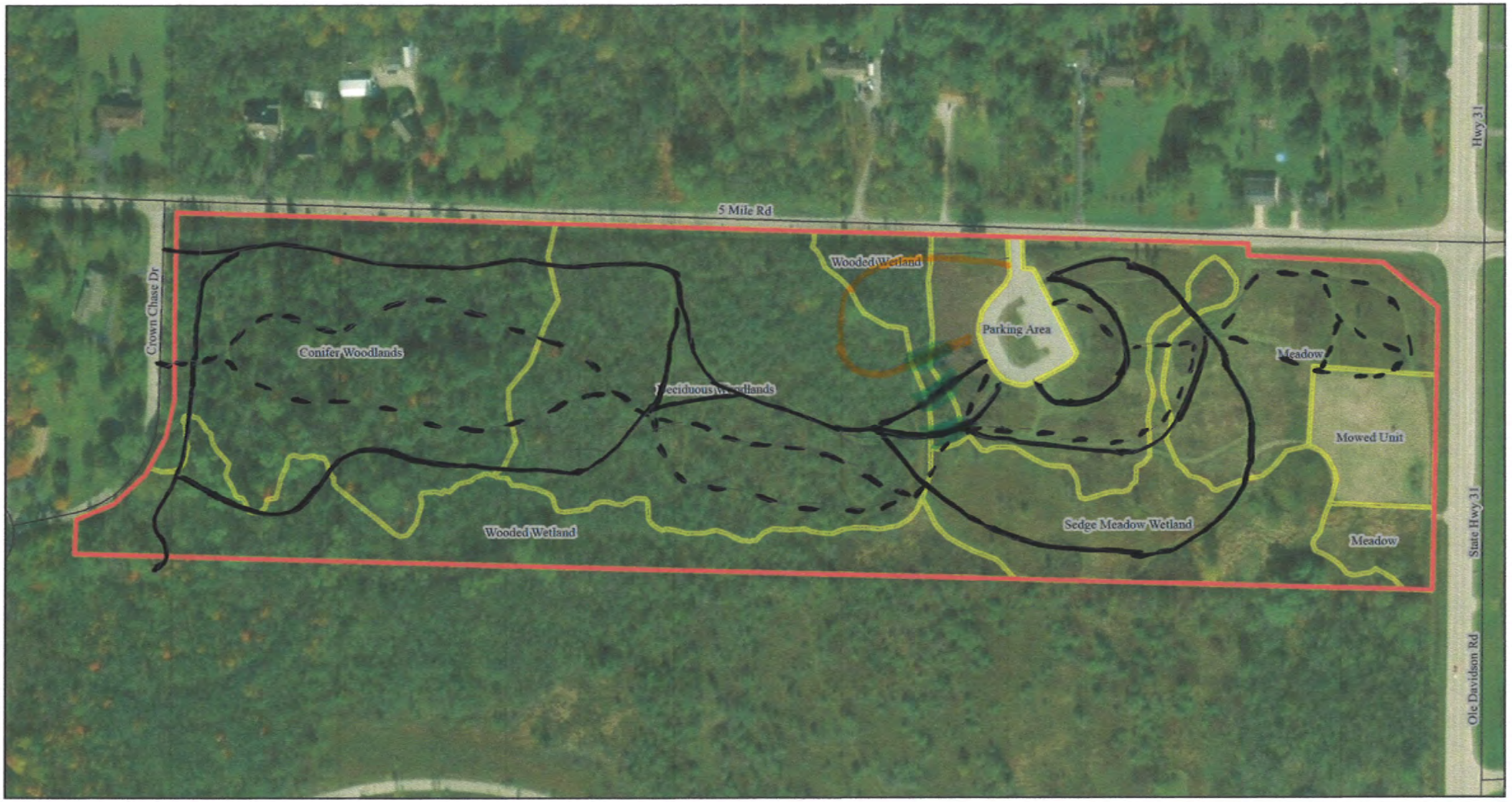
N

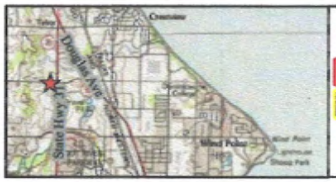
NW 1/4 of the NE 1/4 & NE 1/4 if the NE 1/4 of Section 24
in Township 04N and Range 22E
Caledonia, WI

Kings Corner Ecological Units
Figure 5B

0 55 110 220 330 440 Feet
0 15 30 60 90 120 Meters

Map Source: Bing Aerial Imagery





Legend

- Project Area
- Ecological Units
- horse trail
- Walking trail
- handicapped boardwalk
- Possible wetland crossings

N

NW 1/4 of the NE 1/4 & NE 1/4 if the NE 1/4 of Section 24
in Township 04N and Range 22E
Caledonia, WI

Map Source: Bing Aerial Imagery

Figure 6 Proposed Trails

King's Corner Vegetation 2017-2018

Table 1.

Trees		Facultative Status	C-Value	Vegetation Community					Sample Diameter at Breast Height	Life History Notes
Species	Common Name			Meadow	Sedge Meadow	Wooded Wetland	Deciduous Woodland	Conifer Woodland	DBH	
Acer negundo	box elder	Fac	0					x	5.7	Commonly found in disturbed sites; seeds are a food source for birds; tree harbors insects that are eaten by birds including inchworms and moths
Acer saccharinum	silver maple	Fac W	2			x				Common component of floodplain forests; seeds are a food source for birds and mammals, inchworms and moths utilize tree.
Acer saccharum	sugar maple	Fac U	5					x	3.6	Important component of deciduous forests; seeds are a food source for birds and mammals; twigs provide browse for deer; important long-lived cavity trees for nesting birds
Carya cordiformis	bitternut hickory	Fac U	6				x	x	1.5,26.7	Can live 200 years, nuts too bitter to be eaten by animals, host moths and butterflies. Sensitive to fire.
Carya ovata	shagbark hickory	Fac U	5				x			Nuts consumed by animals, tree hosts moths and butterflies.
Crataegus sp.	hawthorn					x	x	x		Fruits important to birds and mammels, thorny branches are safe nesting sites, harbor 159 species of caterillers including moths and butterflies.
Elaeagnus umbellatus	**Autumn olive**	Upl	0	x				x		**Non native tree, can be invasive.**
Fraxinus americana	white ash	Fac U	5		x					Less suseptible to Emerald Ash Borer than green ash- at least currently. Seeds a food source for birds, leaves host to dozens of Butterfly species.
Fraxinus pennsylvanica	green ash	Fac W	2		x	x	x		3.4,3.2,10	Killed by Emerald Ash Borer, seeds are a food source for birds, branches are food source for mammals.
Gleditsia triacanthos	honey locust	Fac U	7			x				Pods eaten by deer and mammals; deer browse on leaves and bark
Juglans nigra	eastern black walnut	Fac U	3					x	15.4	Important source of food and cover for wildlife; secretes an allelopathic chemical from its roots that is highly toxic to other plants
Juniperus virginiana	eastern red cedar	Fac U	3	x				x		Fruits eaten by birds, incluidng cedar waxwing, trees provide nesting and protection.
Malus pumila	apple	Upl	0			x				Fruits eaten by birds and mammals.
Picea abies	Norway spruce	Upl	0					x		Spruce seeds eaten by birds and mammels.
Picea glauca	white spruce	Upl	7					x	2.4	Spruce seeds eaten by birds and mammels. Host moths and butterflies
Pinus nigra	Austrian Pine	Upl	0			x		x		Seeds eaten by birds and mammels.
Pinus sylvestris	Scots pine	Upl	0					x	3.3,7.7,8.5,6.1	Seeds eaten by birds and mammels.
Populus deltoides	cottonwood	Fac	2		x					Early successional tree- important for moths and butterflies.
Prunus serotina	black cherry	Fac U	3			x			2.8	Fruit is important food source for birds and mammals; tree harbors insects that are eaten by birds
Quercus alba	white oak	Fac U	7					x		Acorns eaten by mammals, tree harbors insects for food and shelter
Quercus macrocarpa	bur oak	Fac	5	x						Acorns eaten by mammals, tree harbors insects for food and shelter
Quercus rubra	red oak	Fac U	5					x		Acorns eaten by mammals although more bitter than white oak, germinate in spring, tree harbors insects for food and shelter
Robinia pseudoacacia	black locust	Fac U	0			x		x		Thorny tree found in moist woods; shade intolerant; introduced from Appalachian Mountains

Salix X pendulina	weeping willow	Fac W	0				x			Host moths and butterflies
Salix X fragilis	crack willow	Fac	0			x		x	34.7	Buds, twigs are a food source for birds and mammals; host moths and butterflies
Thuja occidentalis	white cedar	Fac W	9			x		x		Shade tolerant- seedlings can respond to gap in light canopy. Seeds eaten by birds and mammals, deer browe leaves, tree harbors insects including moths.
Tilia americana	American basswood	Fac U	5			x		x		Seeds eaten by birds and mammels, tree harbors 150 species of caterpillars, that provide food for birds..
Ulmus americana	American elm	Fac W	3					x	5.1,3.0	Buds, seeds, and bark are an important source of food for mammals and birds in late winter and early spring
Saplings and Shrubs		**Facultative Status**	**C-Value**	**Vegetation Community**						**Life History Notes**
Species	**Common Name**			**Meadow**	**Sedge Meadow**	**Wooded Wetland**	**Deciduous Woodland**	**Conifer Woodland**	**DBH**	
Cornus ammomum	silky dogwood	Fac W	4		x	x		x		
Cornus racemosa	gray dogwood	Fac	2	x	x	x	x	x		Fruits are important food source for birds and mammals; provides cover for animals; can become weedy and thinning may be desired in order to increase floristic diversity
Eleagnus umbellatus	**autumn olive**	Upl	0	x						**Invasive species**
Fraxinus pennsylvanica	green ash	Fac W	2			x				
Lonicera tartarica	**honeysuckle**	**Fac U**	**0**		x	x	x			**Invasive plant of major concern – highly invasive shrub**
Picea glauca	white spruce	Upl	7	x (3)						
Prunus serotina	black cherry	Fac U	3			x			2.8	Fruit is important food source for birds and mammals; tree harbors arthropods that are eaten by birds
Quercus macrocarpa	bur oak	Fac	5	x					1.9	
Quercus rubra	red oak	Fac U	5					x		
Rhamnus cathartica	**common buckthorn**	**Fac**	**0**			x	x	x		**Invasive plant of major concern – highly invasive shrub**
Rosa multiflora	**multiflora rose**	**Fac U**	**0**		x		x			**Invasive plant of major concern – highly invasive shrub**
Salix interior	sandbar willow	Fac W	2	x		x				
Salix X fragilis	crack willow	Fac	0			x		x		
Sambucus canadensis	elderberry	Fac	3	x	x					Berries are important food source for birds; leaves are a food source for mammals
Viburnum lentago	nannyberry	Fac	4				x	x		Fruits eaten by birds and mammals; flowers and pollen attract honeybees and other insects; birds nest in shrub.
Viburnum opulus	American high bush cranberry	Fac	6			x	x	x		Berries may provide food for birds and mammals, but are thought to be more tart and less desirable than the native species
Viburnum prunifolium	smooth blackhaw	Fac U	8				x			Special Concern species (rare); found in rich hardwood forests.
Zanthoxylum americanum	prickly ash	Fac U	3			x		x		Common in disturbed moist forests and forest edges; fruits eaten by woodland birds and mammals; can be weedy
Grasses, Sedges, Rushes		**Facultative Status**	**C-Value**	**Vegetation Community**						**Life History Notes**
Species	**Common Name**			**Meadow**	**Sedge Meadow**	**Wooded Wetland**	**Deciduous Woodland**	**Conifer Woodland**		
Agrostis gigantea	red top grass	Fac W	0	x	x	x	x			
Bromus inermis	common brome grass	Fac U	0	x		x				
Calamagrostis canadensis	Canada bluejoint grass	Obl	5			x				
Carex bebbii	Bebb's oval sedge	Obl	4		x		x			
Carex granularis	limestone meadow sedg	Fac W	3			x				

Carex pennsylvanica	pennsylvania sedge	Fac U	3				x		
Carex stipata	common fox sedge	Obl	2		x				Provides wildlife cover; somewhat common perennial sedge
Carex stricta	tussock sedge	Obl	7		x	x			
Carex trichocarpa	hairy fruit sedge	Obl	7			x			
Carex vulpinoidea	common fox sedge	Fac W	2		x	x			Provides wildlife cover; somewhat common perennial sedge
Eleocharis palustris	red-footed spike rush	Obl	3		x				
Festuca arundinacea	fescue grass	Fac U	0		x				
Glyceria striata	fowl manna grass	Obl	4			x	x		Common perennial grass in wet forests
Juncus dudleyi	Dudley's rush	Fac W	4		x	x			
Juncus torreyi	Torrey's rush	Fac W	4			x			
Leersia virginica	white grass	Fac W	3			x			
Phalaris arundinacea	**reed canary grass**	**Fac W**	**0**	x	x	x*	x		**Invasive plant of major concern – highly invasive perennial grass**; common to open wetlands; less prevalent in shade
Phleum pratense	common timothy	Fac U	0	x	x			x	
Phragmites australis	**Giant reed grass**	**Fac W**	**0**	x					**Invasive plant of major concern – highly invasive perennial grass**; common to open wetlands; less prevalent in shade
Poa palustris	fowl blue grass	Fac W	5			x			
Poa pratensis	Kentucky blue grass	Fac	0	x	x			x	
Scirpus atrovirens	dark-green bulrush	Obl	3		x	x			
Scirpus cyperinus	woolgrass	Obl	4		x				
Typha x glauca	hybrid cattail	Obl	0		x				Perennial; provides a source of food and cover for birds and mammals; can be weedy and may need to be thinned in order to improve habitat for birds; muskrats can provide adequate control
Forbs		**Facultative Status**	**C-Value**	**Vegetation Community**					**Life History Notes**
Species	**Common Name**			**Meadow**	**Sedge Meadow**	**Wooded Wetland**	**Deciduous Woodland**	**Conifer Woodland**	
Achillea millefolium	yarrow	Fac U	1	x	x	x		x	
Agrimonia gryposepala	tall agrimony	Fac U	2		x	x	x	x	
Alisma triviale	water plantain	Obl	4				x		
Allium canadense	wild onion	Fac U	4			x			
Ambrosia artemisiifolia	common ragweed	Fac U	0	x	x				Common annual agricultural weed; causes hay fever allergy; can form dense patches
Ambrosia trifida	giant ragweed	Fac	0	x					Common annual agricultural weed; causes hay fever allergy; can form dense patches
Arctium minus	lesser burdock	Fac U	0	x		x			Common biennial weed found in disturbed areas and along agricultural fields; seeds pose dangerous threat to small migrating birds who can get caught in them
Arisaema thriphyllum	Jack in the pulpit	Fac W	5			x			
Asclepias incarnata	swamp milkweed	Obl	5	x	x				Common wetland perennial; excellent source of nectar for a variety of bees, wasps, butterflies, and flies; host plant of Monarch butterfly; occasionally frequented by hummingbirds; foliage toxic to mammals
Asclepias syriaca	common milkweed	Fac U	1	x	x				Excellent source of nectar for a variety of bees, wasps, butterflies, and flies; host plant of Monarch butterfly; occasionally frequented by hummingbirds; foliage toxic to mammals
Asparagus officinalis	wild asparagus	Fac U	0	x	x				
Bidens frondosa	common beggar-ticks	Fac W	1		x	x	x	x	Common wetland annual; seeds eaten by waterfowl; plants eaten by muskrats; provides cover
Caltha palustris	yellow marsh marigold	Obl	6		x	x			Pollen attracts bees, ants, syrphid flies, Monarch butterflies
Chrysanthemum	common daisy	Fac U	0		x		x		
Cichorum intybus	chickory	Fac U	0	x					
Cirsium discolor	prairie thistle	Fac U	4	x			x		Perennial; common in old fields and prairies; flowers attract a variety of insects and finches; can be weedy

Cirsium vulgare	bull thistle	Fac U	0	x					
Convolvuulus arvensis	morning glory	Fac U	0		x				
Coronilla varia	crown vetch	Fac U	0					x	
Daucus carota	Queen Annes Lace	Upl	0	x	x	x		x	
Forbs		**Facultative Status**	**C-Value**	**Vegetation Community**					**Life History Notes**
Species	**Common Name**			**Meadow**	**Sedge Meadow**	**Wooded Wetland**	**Deciduous Woodland**	**Conifer Woodland**	
Dipsaucus laciniatus	**cut-leaved teasel**	**Upl**	**0**	**x**	**x**				**Invasive plant of major concern – highly invasive forb**
Epilobium coloratum	purple-leaf willow herb	Obl	3			x			Relatively common wetland perennial; nectar and foliage provide food for a variety of insects
Epilobium hirsutum	**hairy willow herb**	**Fac W**	**0**		**x**				**Invasive plant of major concern – highly invasive forb**
Erigeron philadelphicus	common fleabane	Fac W	2	x	x	x	x	x	Biennial/perennial; nectar and foliage provide food for a variety of insects; foliage occasionally eaten by mammals
Eupatorium perfoliatum	common boneset	Obl	6		x				Attracts bees, bumblebees, moths
Euthamia graminifolia	grass leaved goldenrod	Fac W	4	x	x	x			
Fragaria virginiana	Virginia strawberry	Fac U	1		x	x			
Geranium maculatum	wild geranium	Fac U	4					x	
Geum aleppicum	yellow avens	Fac W	3			x			
Geum canadense	white avens	Fac	2	x			x		
Glechoma hederacea	creeping Charlie	Fac U	0					x	
Helenium autumnale	sneezeweed	Fac W	4			x	x		Nectar and pollen attracts bees, butterflies and beetles. Plant toxic to mammals.
Impatiens capensis	touch-me-not	Fac W	2		x	x	x		Common annual along stream banks; excellent source of nectar for hummingbirds and insects; seeds eaten by birds
Lobelia siphilitica	great blue lobelia	Obl	5		x	x			Attracts bumble bees, digger bees
Lotus corniculatus	birds foot trefoil	Fac U	0	x					**Invasive plant of major concern – highly invasive forb**
Lycopus americanus	American water horehou	Obl	4		x	x	x		
Lycopus virginicus	bugleweed	Obl	8		x				
Lysimachia ciliata	fringed loosestrife	Fac W	5				x		
Lysimachia nummularia	creeping Jenny	Fac W	0					x	Common perennial in moist, shaded, disturbed sites; very low wildlife value; can be weedy
Lythrum salicaria	**purple loosestrife**	**Obl**	**0**	**x**	**x**				**Invasive plant of major concern – highly invasive forb**
Mimulus ringens	monkeyflower	Obl	6		x	x			
Monarda fistulosa	wild bergamot	Fac U	3		x		x		Nectar feeds Monarch butterflies, bees, bumblebees, skippers, moths
Parthenocissus quinquefolia	Virginia creeper	Fac U	5		x	x	x	x	Berries are important food source for birds and mammals; common understory plant in woodlands
Persicaria hydropiper	water-pepper	Obl	0				x		Excellent food source for waterfowl; annual
Persicaria lapathifolia	pale smartweed	Fac W	2					x	Excellent food source for waterfowl; annual
Persicaria virginiana	woodland knotweed	Fac	7			x	x	x	
Podophyllum peltatum	may apple	Fac U	4					x	
Prunella vulgaris	heal-all	Fac	1	x	x	x	x	x	
Ranunculus sceleratus	cursed crowfoot	Obl	3			x			
Ratibida pinnata	yellow coneflower	Upl	4				x		Nectar and pollen feed bumblebees, bees, beetles, moths, syrphid flies
Rhamnus cathartica	**common buckthorn**	**Fac**	**0**				**x**	**x**	**Invasive plant of major concern – highly invasive shrub**
Rubus idaeus	red raspberry	Fac U	3			x			Fruits eaten by birds and mammals.

Rudbeckia hirta	black-eyed Susan	Fac U	4	x			x	x	Nectar and pollen feed bumblebees, bees, soldier beetles, moths, syrphid flies
Rumex crispus	curly dock	Fac	0	x	x	x	x		Common perennial weed found in disturbed areas
Solanum dulcamara	bittersweet nightshade	Fac	0	x			x		
Solidago canadensis	Canada goldenrod	Fac U	1	x	x	x		x	
Solidago gigantea	giant goldenrod	Fac W	3	x	x	x	x	x	
Sonchus oleraceus	common sow-thistle	Fac U	0	x	x				
Symphyotrichum lateriflorum	calico aster	Fac W	3			x			Common perennial in old field habitats and meadows; provides cover for birds and food for butterflies, bees, and occasionally mammals
Symphyotrichum novae-angliae	New England aster	Fac W	3	x	x				Nectar attracts butterflies, bumblebees, bees, moths
Symphyotrichum puniceum	purple-stem aster	Obl	5		x				Wetland forb; attracts bees, bumblebees, butterflies.
				Meadow	**Sedge Meadow**	**Wooded Wetland**	**Deciduous Woodland**	**Conifer Woodland**	**Life History Notes**
Taraxacum officinale	common dandelion	Fac U	0	x					
Thalictrum dasycarpum	meadow rue	Fac W	4				x		Attracts bees and syrphid flies
Toxicodendron radicans	poison ivy	Fac	4	x	x		x		**HAZARDOUS! Sap causes skin irritation.** Seeds eaten by birds; foliage eaten by deer and rabbits
Trifolium pratense	red clover	Fac U	0					x	
Trillium recurvatum	reflexed trillium	Fac U	6					x	
Urtica dioica	stinging nettle	Fac	1				x		
Verbascum thaspus	common mullein	Upl	0	x					
Verbena hastata	blue vervain	Fac W	3	x	x				Nectar and pollen feed bumblebees, bees, butterflies, moths, skippers
Vicia americana	american vetch	Fac U	4		x				
Viota sororia	common blue violet	Fac	3			x			Common woodland perennial; source of food for butterfly caterpillars
Vitis riparia	riverbank grape	Fac W	2	x	x	x			Important component of floodplain forests; berries are an important food source for birds and mammals
Xanthium strumarium	cocklebur	Fac	1			x			Common annual agricultural weed
				Meadow	**Sedge Meadow**	**Wooded Wetland**	**Deciduous Woodland**	**Conifer Woodland**	
			Species Richness	36	59	66	42	48	
			Number of Native Species	22	40	51	30	31	
			Mean C-Value	3.05	3.38	3.39	3.66	3.9	
			FQI	**14.31**	**21.38**	**24.21**	**20.05**	**21.71**	
FQI: <20 =low quality; 20-35 = high quality; >35 = Natural Area quality									

C-Value ranges from 0-10, values of 0 are for non native species, the higher the number the more undisturbed the community is that supports it.
BOLD species are invasive