

AGENDA

Ingham County Parks & Recreation Commission
121 E. Maple Street, P.O. Box 178, Mason, MI 48854
Telephone: 517.676.2233; Fax: 517.244.7190

The packet is available on-line by going to www.ingham.org, choosing the "Monthly Calendar," and clicking on Monday, July 24, 2017

Monday, July 24, 2017

5:30pm

PARKS & RECREATION COMMISSION MEETING

Red Tail Shelter
Hawk Island
1601 East Cavanaugh
Lansing, Michigan



**NOTE
CHANGE IN
LOCATION**

1. Call to Order
2. Pledge of Allegiance
3. Approval of Minutes
[Minutes](#) of June 26, 2017 regular meeting will be considered - Page 3
4. Limited Public Comment ~ *Limited to 3 minutes with no discussion*
5. APPROVE THE AGENDA
Late Items / Changes/ Deletions
6. ACTION ITEMS
 - A. [Resolution](#) Authorizing Deer Hunting at Lake Lansing Park-North & the Ingham County Farm – Page 9
 - B. [Motion](#) to Recommend a Memorandum of Understanding with Mid-Michigan Mountain Bike Association (MMBA) - Page 47
 - C. [Resolution](#) to Recommend Authorizing the Creation of a Trails & Parks Millage Program Coordinator - Page 55
7. DISCUSSION ITEMS
 - A.
8. ADMINISTRATIVE REPORTS
 - A. [Director](#) - Page 60
 - B. [Park Managers](#) - Page 62
 - C. [Administrative Office](#) - Page 66
 - D. [Financial Report](#) - Page 67
9. [Correspondence](#) & Citizen Comment - Page 71
10. Board/Staff Comments
11. Limited Public Comment ~ *Limited to 3 minutes with no discussion*
12. Upcoming Meetings
 - A. No August Meetings
 - B. Date: Monday, September 18, 2017; Time: 5:30pm
Parks & Recreation Commission Meeting

Date: Monday, September 25, 2017; Time: 5:30pm
Parks & Recreation Commission Meeting

13. Informational Items – *Distributed at Commission Meeting*

- A. County Services, Finance Committee, and Board of Commissioner Meeting Minutes
(Items pertaining to the Parks Department)
- B. Newspaper Articles
- C. Day Camp Surveys

14. Adjournment

Official minutes are stored and available for inspection at the address noted at the top of this agenda. The Ingham County Parks & Recreation Commission will provide necessary reasonable auxiliary aids and services, such as interpreters for the hearing impaired and audio tapes of printed materials being considered at the meeting for the visually impaired, for individuals with disabilities a the meeting upon five (5) working days notice to the Ingham County Parks & Recreation Commission. Individuals with disabilities requiring auxiliary aids or services should contact the Ingham County Parks & Recreation Commission by writing to the Ingham County Parks Department, P.O. Box 178, Mason, Michigan 48854, or by calling 517.676.2233.

Ingham County Parks & Recreation Commission Members: Chair Sarah Nicholls, Vice-Chair Matt Bennett, Secretary Jonathan Schelke, County Commissioner Teri Banas, Ryan Earl, Jessy Gregg, Cherry Hamrick, County Commissioner Carol Koenig, Paul Pratt, and Shirley Rodgers

DRAFT MINUTES OF THE MEETING
INGHAM COUNTY PARKS & RECREATION COMMISSION
121 E. Maple Street, Suite 102, Mason, Michigan 48854
June 26, 2017

The Ingham County Parks & Recreation Commission held a Regularly Scheduled Meeting at Lake Lansing Park South, Lakeview Shelter, 1621 Pike Street, Haslett, Michigan.

Board Members

Present: Commissioner Teri Banas, Matt Bennett, Ryan Earl, Jessy Gregg, Cherry Hamrick, Commissioner Carol Koenig, Sarah Nicholls, Shirley Rodgers, and Jonathan Schelke

Absent: Paul Pratt

Also Present: Park Director Tim Morgan, Financial Coordinator Karen Fraser, Recording Secretary Nicole Wallace, Lake Lansing Park Manager Pat Witte, Lake Lansing Park Assistant Park Manager Tim Buckley, Account Clerk Cindy Wilcox, Eric Mogyoros, Carlie Money, County Commissioner Mark Grebner, Penelope Tsernoglou, James Daggy, Lauren Ross, Leonard Provencher, Jeff Potter, Tanya Moore, Bob Pena, and others

Call to Order: Chair Nicholls called the Regularly Scheduled Parks & Recreation Commission meeting to order at 5:50pm

Minutes: **Moved by** Mr. Schelke and **Supported by** Commissioner Koenig to approve the June 19, 2017 minutes of the regular meeting as written.
Yes-9; No-0. MOTION CARRIED.

LIMITED PUBLIC COMMENT

None.

LATE ITEMS / CHANGES / DELETIONS

None.

ACTION ITEMS

Chair Nicholls presented the resolution honoring James Daggy. Mr. Daggy addressed the commission and thanked them for the award. Mr. Witte thanked Mr. Daggy for his years of service.

RESOLUTION #15-17 HONORING JAMES DAGGY

WHEREAS, James Daggy began his employment with the Ingham County Parks Department in 2002 as a Ranger at Lake Lansing Parks; and

WHEREAS, throughout his career he was responsible for routine maintenance on park grounds, buildings and equipment, enforcing park rules and regulations, and providing assistance to the public; and

WHEREAS, during James' fourteen-year employment history, he only had one sick day and was always willing to cover other employee shifts; and

WHEREAS, James attention to detail has given Lake Lansing Management staff new efficient ways to control inventory and ways to streamline seasonal schedules; and

WHEREAS, James had a knack of telling a story to a fellow employee that would always lift that employee's spirits.

WHEREAS, James' commitment to providing exceptional customer service has proven to be a great asset to the County Parks Department and Ingham County; and

WHEREAS, during his career James was professional, dedicated, knowledgeable and loyal to the Parks Department mission to provide quality outdoor recreation opportunities and facilities for all segments of our population and to enhance the quality of life for park visitors and county residents through active citizen involvement, planned acquisition, preservation, and professional management of park lands.

THEREFORE BE IT RESOLVED, that the Ingham County Park & Recreation Commission hereby honors James Daggy for his outstanding quality of work and extends its sincere appreciation for his contributions during his years of dedicated service to the Ingham County Parks Department.

BE IT FURTHER RESOLVED, that the Ingham County Parks & Recreation Commission extends to James Daggy its best wishes for continued success in all his future endeavors.

Moved by Commissioner Banas and **Supported by** Ms. Gregg that Resolution #15-17 be approved as written. **Yes-9; No-0. MOTION CARRIED.**

MONARCH, MILKWEED, AND LAKE LANSING STEWARDSHIP

Mr. Witte introduced Carlie Money, the new stewardship coordinator. Ms. Money addressed the commission with an update of stewardship activities. Ms. Money stated so far this year, volunteers have completed 386 hours to remove invasive species such as garlic mustard and autumn olive. Ms. Money stated she has been working with Ms. Fraser about social media posts for band shell events. Ms. Money stated they have updated kiosk signs and planted over 50 trees.

Mr. Witte stated 3/4 of an acre of autumn olive was removed and in its place milkweed was planted; and now Ms. Money is creating buffer zones. Commissioner Banas stated she was concerned monarch butterflies are endangered and asked if there were any in the parks. Mr. Buckley stated yes, there are a lot of monarch butterflies. Commissioner Banas asked if there has been community outreach. Mr. Witte stated Mr. Collins stopped pulling milkweed at Hawk Island. Mr. Witte stated we haven't been very vocal about this issue. Commissioner Banas recommended Facebook posts so more people can get involved. Ms. Money stated they have recently made a stewardship website. Commissioner Banas stated St. Luke's Church has community gardens and it would be nice to reach out to them.

LAUREN ROSS – FLRT TRAIL AMBASSADOR, TRAILS AND PARKS FUNDED POSITION – INTRODUCTION

Cherry Hamrick introduced Lauren Ross, the new FLRT trail ambassador. Ms. Ross will be attending Park Commission meetings to provide updates. Ms. Ross stated we need more active involvement from the community. She will be working on a reporting system, so if there are problems on the trails, people know who to contact. Ms. Ross stated she will try to organize clean-ups on the trails and also try to get sponsors.

Commissioner Banas asked what are the goals for this season. Ms. Hamrick stated reaching out to other communities beyond Lansing. Ms. Hamrick stated MOUs are in progress for East Lansing and Meridian Township.

ADMINISTRATIVE REPORTS

Director~ Mr. Morgan reported the Sun in the Fun event at Lake Lansing South was a great success and staff did a great job.

Park Managers~ Ms. Rodgers asked about the memorial bench that was installed at Burchfield Park. Mr. Morgan stated it was for a previous employee. Ms. Fraser stated the Friends of Ingham County Parks have benches in the park and people can make a donation to the Friends for a plaque.

Administrative Office~ Ms. Fraser introduced Cindy Wilcox our new account clerk and Eric Mogyoros our new intern.

Financial Report~ Ms. Fraser stated we have been bought several credit card machines which was more than expected due to failure of the machines. Ms. Gregg asked if the new revenue management system will eliminate this issue. Ms. Fraser stated she anticipates the new system will be an improvement.

Annual Report~ Ms. Fraser handed out the annual report and stated we will also share this with the Board of Commissioners. Mr. Morgan stated in the past it was a three ring binder, but this year we have changed the format to mirror FLRT's report to make it more attractive. Ms. Gregg asked about the drop in attendance at Hawk Island and Mr. Morgan stated the trail work and weather affected visitation. Ms. Rodgers asked for clarification of the graph and Ms. Fraser reviewed the titles of the graph.

ACTION ITEMS

Friends Charitable Donation

Jeff Potter introduced himself as the Chair of the Friends of Ingham County Parks. Mr. Potter presented the \$7,200 check to Chair Nicholls. Mr. Potter addressed the commission about the grant. Mr. Morgan stated staff is already working on the planning to start this project and we will have kiosks and new signage at Burchfield Park after this fall.

Mr. Potter provided an update on the Friends to the commission. Mr. Potter stated the Friends will discuss funding a memorial plaque for John Veenstra at their next meeting. Mr. Potter stated the Friends are selling a Pictorial History of Lake Lansing Park booklets for \$15 but offered to the Park Commission for \$10. Mr. Morgan stated Ms. Hamrick joined the Friends and invited the other Park Commissioners to join. Mr. Potter stated he is trying to obtain sponsors for shelters at the parks, for example from Playmakers. Ms. Rodgers recommended the Friends utilize the money at multiple parks if they get sponsors for shelters. Mr. Potter stated the Friends has a small volunteer board and they need a machine to create members and Bob Wilson came up with an idea of a park patron pass. The pass would be \$100 and would include a membership to the Friends and also a parking permit to the parks. The Friends will be discuss this program at their next meeting, more to come on this.

RESOLUTION #16-16 RECOMMENDING ACCEPTANCE OF CHARITABLE DONATION FROM THE FRIENDS OF INGHAM COUNTY PARKS FOR THE INGHAM COUNTY PARKS

WHEREAS, The Friends of Ingham County Parks whose mission, since the year 1999, is to support the Ingham County Parks through fundraising and volunteerism; and

WHEREAS, the Ingham County Parks in partnership with the Mid-Michigan Mountain Bike Association have a Trail Signage Improvement Project planned for Wm. Burchfield Park; and

WHEREAS, the Friends of Ingham County Parks applied for and received a \$5,000.00 grant that included \$1,000.00 from the DALMAC Fund and \$4,000.00 from the Tri-County Bicycle Association to support the project; and

WHEREAS, the Friends of Ingham County have committed \$1,700.00 to the project; and

WHEREAS, the Mid-Michigan Mountain Bike Association has donated \$500.00 to the Friends of Ingham County Parks for this project; and

WHEREAS, the Mid-Michigan Mountain Bike Association is providing additional in-kind services directly to the project.

WHEREAS, these funds combined with \$10,000 approved in the Parks Department 2017 capital improvement budget provide a \$17,200 budget for the project.

THEREFORE BE IT RESOLVED, that the Ingham County Parks & Recreation Commission recommend to the Ingham County Board of Commissioners to authorize acceptance of a donation of \$7,200.00 from the Friends of Ingham County support the Trail Signage Improvement Project at Wm. Burchfield Park.

Moved by Mr. Bennett and Supported by Ms. Rodgers that Resolution #16-17 be approved as written. **Yes-9; No-0. MOTION CARRIED.**

Park Rules

MOTION TO RECOMMEND APPROVAL OF THE PARK RULES & REGULATIONS

MOVED BY MS. RODGERS, SUPPORTED BY MR. EARL

To recommend approval of the modifications of the ordinance establishing the park rules and regulations.

THE MOTION CARRIED UNANIMOUSLY. Absent: Paul Pratt. MOTION CARRIED.

Hawk Island Parking Lot Improvements

Mr. Morgan stated this resolution will authorize spot repairs for the parking lot entrance drive at Hawk Island. Commissioner Banas asked how much it costs to repair/replace parking lots. Ms. Fraser stated it was approximately \$750,000 when the Zoo fixed their parking lot in 2010. Ms. Fraser stated funds are available for this project from the capital improvement budget from the millage.

Mr. Schelke, supported by Commissioner Banas suggested a friendly amendment to edit: BE IT FURTHER RESOLVED, that funds are available in the 2017 capital improvement budget *and from the trails and parks millage*. This amendment was accepted as friendly by the Committee.

Ms. Fraser stated the actual line item number will be added to the resolution to the Board of

Commissioners.

RESOLUTION #17-17 TO RECOMMEND A CONTRACT WITH RIETH-RILEY CONSTRUCTION CO. FOR IMPROVEMENTS TO THE PARKING LOT AT HAWK ISLAND COUNTY PARK

WHEREAS, the parking lot at Hawk Island County Park is in need of repair; and

WHEREAS, the Purchasing Department solicited proposals from qualified and experienced contractors for reconstructing and repairing portions of the parking lot at Hawk Island County Park; and

WHEREAS, the Evaluation Committee recommends that a contract be awarded to Rieth-Riley Construction Co.

THEREFORE BE IT RESOLVED, that the Ingham County Park Commission recommends that the Ingham County Board of Commissioners authorizes entering into a contract with Rieth-Riley Construction Co. for a cost not to exceed \$43,243.00 for reconstructing and repairing portions of the parking lot at Hawk Island County Park.

BE IT FURTHER RESOLVED, that funds are available in the 2017 capital improvement budget and from the trails and parks millage.

Moved by Ms. Rodgers and Supported by Ms. Hamrick that Resolution #17-17 be approved as amended. Yes-9; No-0. MOTION CARRIED.

DISCUSSION ITEMS

Wayfinding – Spicer Group~ Tanya Moore of Spicer Group presented the draft signage system. Ms. Moore invited the commissioners to the next meeting to discuss wayfinding on June 29th. Ms. Moore stated this signage can also be used on water trails. Ms. Moore stated each community will be responsible for what they want on the sign, Spicer Group will provide a uniform template. Ms. Moore stated there will be room on the sign for trail adoption through FLRT. Ms. Moore stated an overall trail map will be affixed to the board, so that the map will be able to be edited. Commissioner Banas recommended that the logo incorporate different users.

Ms. Rodgers asked for clarification on adopting a trail. Ms. Rodgers stated it is unclear if you can adopt a trail or do a larger donation. Ms. Moore suggested it could state sponsor this sign, or adopt a portion of the trail. Commissioner Koenig stated it is passive language and suggested making the language more active: get involved, adopt a section of the trail. Ms. Hamrick stated the City of Lansing allows sponsors to adopt a quarter mile of a trail and then that group maintains the section of the trail. Discussion. Ms. Moore stated this will be discussed further at the next wayfinding meeting.

Commissioner Banas asked about distance markers- what point are the signs measured from? Ms. Moore stated we still need to discuss this. Ms. Hamrick stated she is an advocate of 1/4 mile markers. Discussion. Ms. Rodgers asked for a timeline for this project. Ms. Moore stated there is a meeting on Thursday for additional feedback. Then the plan is to return to the Park Commission in July and then the Board of Commissioners.

Michigan Natural Resources Trust Fund Grant Proposals 2017 Summary~ Mr. Morgan referenced the

report in the packet that Park Commissioner Rodgers had asked be shared with the commission.

BOARD/STAFF COMMENTS

Mr. Earl stated his family had a memorial picnic at Burchfield Park and everyone complimented the park. Mr. Morgan asked the Park Commission if they would like to cancel the July 17th Park Commission meeting and instead attend the next Special Trails and Parks Committee meeting. All present agreed that the July 17th Park Commission meeting will be cancelled. Chair Nicholls stated the next Special Trails and Parks Committee is on June 29th at 6:00pm and the next Park Commission meeting will be on July 24th at 5:30pm at Hawk Island.

LIMITED PUBLIC COMMENT

None.

Adjournment:

There being no further business, the meeting was adjourned at 7:21pm.

Meeting adjourned

Minutes submitted by:

Nicole Wallace, Recording Secretary

INGHAM COUNTY PARKS & RECREATION COMMISSION

Meeting of July 24, 2017

RESOLUTION # -17

**RESOLUTION RECOMMENDING AUTHORIZING DEER HUNTING
AT LAKE LANSING PARK-NORTH AND THE PROPERTY LOCATED WITHIN THE INGHAM
COUNTY FARM, 3860 DOBIE ROAD, OKEMOS**

WHEREAS, this is a request due to the Michigan Department of Natural Resources research data reporting cases of (CWD) chronic wasting disease of deer found in Meridian Township that supports the continued appropriate management practices; and

WHEREAS, overpopulation of white tailed deer negatively impacts natural communities and associated wildlife which requires management of the deer herd; and

WHEREAS, the deer herd within Meridian Township and specifically in Lake Lansing Park-North and the Ingham County Farm located at 3860 Dobie Road, Okemos, is causing damage to plant life within park property and the Ingham County Farm surrounding private lands; and

WHEREAS, deer/car accidents in the Lake Lansing area and the Ingham County Farm are an issue; and

WHEREAS, the Michigan Department of Natural Resources states that an abundance of deer in a given area may lead to deer in poor physical condition and susceptible to disease such as CWD and starvation; and

WHEREAS, Meridian Township has conducted successful deer hunts within their properties and surrounding properties; and

WHEREAS, Meridian Township wishes to partner with the Ingham County Parks Department to conduct a deer hunting program within the boundaries of Lake Lansing Park-North and the Ingham County Farm; and

WHEREAS, by working cooperatively with Meridian Township, resources can be shared to successfully complete the project; and

WHEREAS, Ingham County will continue to work with Michigan DNR and USDA to help resolve the Chronic Wasting Disease (CWD).

THEREFORE BE IT RESOLVED, the Ingham County Parks and Recreation Commission recommend that the Ingham County Board of Commissioners authorizes the hunting of white tailed deer within the boundaries of Lake Lansing Park-North and the Ingham County Farm during the 2017-2019 Archery Deer Seasons.

BE IT FURTHER RESOLVED, the Ingham County Parks and Recreation Commission recommend the Board of Commissioners also authorizes overnight culling of the deer herd supervised by the USDA Wildlife Services personnel, and in cooperation and planning with the Ingham County Parks Department staff under direction of the Michigan DNR through December 31, 2019 at Lake Lansing Park-North and the Ingham County Farm.

BE IT FURTHER RESOLVED, hunters must meet all requirements of the Meridian Township deer hunting program and may only use archery equipment including crossbows, guns will not be permitted except during the overnight culling of the deer herd supervised by the USDA Wildlife Services personnel.



Meridian Township
5151 Marsh Road
Okemos, MI 48864

P 517.853.4000
F 517.853.4096

Township Board:

Ronald J. Styka
Supervisor

Brett Dreyfus
Township Clerk, CMMC

Julie Brixie
Treasurer

Phil Deschaine
Trustee

**Patricia Herring
Jackson**
Trustee

Dan Opsommer
Trustee

Kathy Ann Sundland
Trustee

Frank L. Walsh
Township Manager

July 18, 2017

Mr. Timothy Morgan
Director of Ingham County Parks
121 East Maple Street, Suite 102
Mason, MI 48854

Dear Mr. Morgan,

I am writing to you to express our support and appreciation for Ingham County's participation in our deer management program.

In previous years, archery hunters have been assigned to harvest deer on two County-owned properties: 1) The Dobie Road Farm, located at 3860 Dobie Road, Okemos and 2) Lake Lansing Park North, located at 6260 East Lake Road, Haslett.

We have appreciated the County's support and partnership in past years and as you can see from the attached map, the Dobie Road Farm and Lake Lansing North Park are very important large hunting locations within the program. Meridian Township continues to receive numerous complaints relative to deer damage and the number of car/deer collisions remains high. In addition to a managed harvest, the township provides educational material on deer-resistant landscaping and suggestions for safe driving during the fall, which is when the deer/car collisions are at a high point.

Our deer management program is an archery-only program where hunters are assigned to each site and shoot downward from a tree stand or carefully placed blinds. The stands, (locations approved by the township) are located in wooded areas away from trails. All of our parks and land preserves remain open to the public during the hunting season which runs from October 1-January 1. All of our volunteer hunters are township residents or police officers who are hand selected for the program; are screened through a criminal background check; attend an orientation at the MSU Demmer Center; must pass a proficiency test; and follow communication protocols set up for the program. Assignments to sites are made by proximity to where the hunter lives, and most times is in a site close to their neighborhood. Safety is the number one priority for this program. During the week, hunters typically hunt before and/or after work. All sites selected for the program will have signage posted as well.



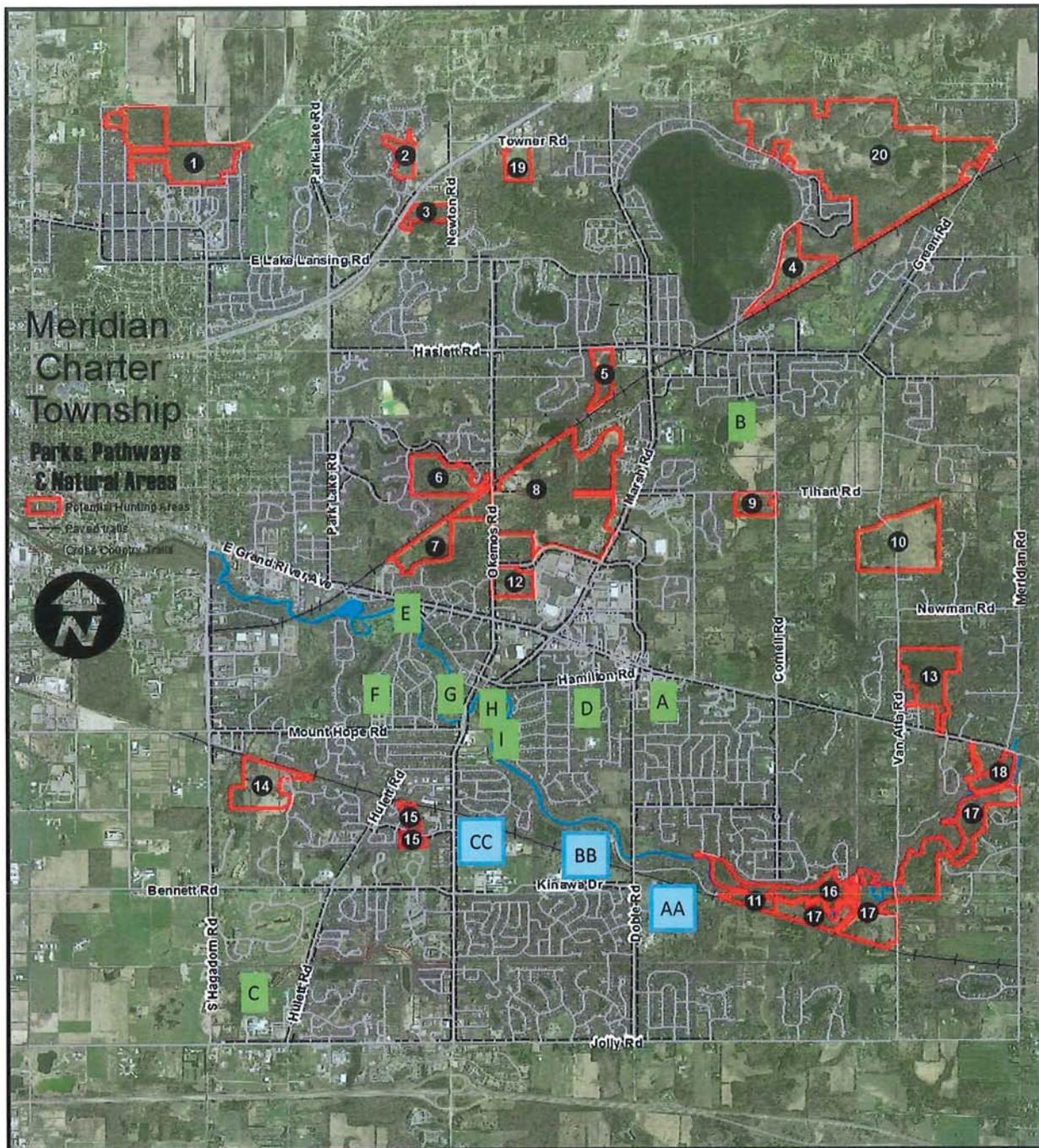
Attached is a poster that the township promotes called Deerwise Community, which encourages drivers to be on the lookout for deer. I have also attached the resolution that the County Parks Board passed to allow hunting within Lake Lansing North Park for your use.

Please contact me with any questions or if you would like to discuss the program.

Sincerely,

LuAnn Maisner, Director of Parks and Recreation

cc: Pat Witte, Lake Lansing Park Manager
Earl Krom, USDA Aphis



Area Name	Acreage	Area Name	Acreage
1 Northwest Land Preserve	125	11 Red Cedar Glen Preserve	14
2 Northridge Land Preserve	25	12 Central Park Drive/Okemos Road (SE Corner)	28.6
3 Forest Grove Land Preserve	25	13 Ted black Woods Park	74
4 Meridian Transfer Station Property	50.6	14 Southwest Meridian Uplands Land Preserve	60
5 Meridian Central Wetland Land Preserve	25	15 Sower Woods Land Preserve	18
6 Hubbel Land Preserve	58	16 Red Cedar Natural Area	56
7 Central Meridian Uplands Land Preserve	60	17 Meridian Riverfront Park	204.5
8 Central Park	237	18 Red Cedar River East Land Preserve	25
9 Tharf/Cornell Wetland Land Preserve	21	19 Townner Road Park	22
10 Davis/Foster Land Preserve	109	20 Lake Lansing Park North	360

Non-Township Owned Properties That Are Hunted
 AA-(Dobie Road Ingham Cty. Farm); BB-(MSU's Dobie Reserve); CC - (Delta Dental)

Meridian Township 2016 Deer Management Areas

- ADDITIONAL PROPOSED TOWNSHIP-OWNED PROPERTIES:**
- A. Forest Hills Natural Area
 - B. Orlando Park Outlot "B"
 - C. Hartrick Park
 - D. Tacoma Hills Natural Area
 - E. Riverside Cemetery
 - F. Glendale Cemetery
 - G. Wonch Park
 - H. Ferguson Park
 - I. Sumbal Natural Area (Land Preserve)

Statistics are from the MSP Traffic Crash Reporting System, *Crash Statistics Report*



Searched - County = Ingham City/Township = Meridian Twp and Williamstown Twp separately
 Date Range = (Varied) Special Circumstances = Deer

This report was generated on 2/07/2017.

Full Year of Data

	Meridian Township			Williamstown Township		
Year	Injury Involved	No Injury Involved	Total	Injury Involved	No Injury Involved	Total
2007	2	157	159	1	146	147
2008	4	136	140	5	109	114
2009	1	151	152	2	66	68
2010	1	137	138	0	50	50
2011	2	150	152	1	69	70
2012	2	151	153	0	70	70
2013	4	176	180	1	72	73
2014	4	133	137	2	68	70
2015	5	139	144	1	67	68
2016	5	159	164	1	80	81
3 Year Average	4.7	143.7	148.3	1.3	71.7	73.0
10 Year Average	3.0	148.9	151.9	1.4	79.7	81.1



From: Krom, Earl G - APHIS [<mailto:Earl.G.Krom@aphis.usda.gov>]
Sent: Thursday, May 18, 2017 10:13 AM
To: Morgan, Timothy <TMorgan@ingham.org>
Cc: Witte, Patrick <PWitte@ingham.org>
Subject: RE: Suspect deer for chronic wasting disease identified in Ingham County

Tim,

We have removed 83 deer total from Lake Lansing Park thus far for CWD surveillance efforts, none of them came back as positive. We are finished as of the beginning of May with deer removals until after fawning season. I would anticipate that the DNR will want us to continue efforts in July.

If you have any questions or concerns please let me know.
Thanks
Earl Krom

From: Fedewa, Chad (DNR) [<mailto:FEDEWAC1@michigan.gov>]
Sent: Monday, July 17, 2017 3:34 PM
To: Morgan, Timothy <TMorgan@ingham.org>
Subject: Deer numbers

Hi Tim

Sorry I didn't get these numbers to you sooner. I was certain that I sent them when I got the numbers from our lab. Anyway, here is a breakdown of our numbers regarding CWD sampling since 2015. They are broken down by Township and Year. Each year includes hunter harvested deer, roadkill, culled deer (deer shot by USDA Wildlife Services), and targeted deer. Target deer are deer that are exhibiting symptoms consistent with CWD that are tested. To date, we haven't had any of those deer turn out to be positive for CWD (except the very first deer that was found positive in 2015). There are a lot of other ailments a deer can have that also look like symptoms of CWD.

Let me know if you are looking for anything else.

Chad Fedewa, Wildlife Biologist
MI DNR Wildlife Division
Rose Lake Field Office
8903 E. Stoll Rd
East Lansing, MI 48823
517-641-4092

Township	2015				2016				2017			
	Hunter	Cull	Roadkill	Target	Hunter	Cull	Roadkill	Target	Cull	Roadkill	Target	
04N 02W Lansing	5	0	49	3	4	12	98	5	0	28	1	
04N 01W Meridian	84	393	135	8	111	252	198	7	63	78	0	
04N 01E Williamstown	216	0	61	2	191	106	77	1	11	39	0	
04N 02E Locke	68	0	6	0	51	0	4	1	0	1	0	
03N 02W Delhi	93	0	44	2	89	0	55	0	0	30	0	
03N 01W Alaiedon	149	0	35	0	140	0	56	0	0	20	1	
03N 01E Wheatfield	121	0	20	0	122	0	27	0	0	12	0	
03N 02E Leroy	29	0	9	1	16	0	8	2	0	1	0	
02N 02W Aurelius	34	0	2	1	27	0	12	2	0	1	0	
02N 01W Vevay	52	0	4	2	31	0	10	1	0	0	0	
02N 01E Ingham	74	0	3	0	56	0	6	2	0	2	0	
02N 02E White Oak	37	0	3	0	24	0	2	0	0	1	0	

Lake Lansing North Deer Enclosure:





**Monitoring Deer Impacts
on Natural Vegetation in Ann Arbor:**

**A Pilot Study of Red Oak Seedlings
as Experimental Indicators of Deer Browse Intensity (Sentinel Seedlings)
Across 10 Ann Arbor Natural Areas**

November 2015–January 2017

**Jacqueline Courteau, Ph.D.
Consulting Biologist/Ecologist, NatureWrite LLC**

30 April 2017

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EXECUTIVE SUMMARY

This report presents results from a pilot study, conducted in Ann Arbor natural areas from November 2015 through January 2017, focused on developing a clear metric for deer impacts to vegetation and assessing current levels of browse damage. We used an experimental approach of planting red oak “sentinel seedlings” across sites and tracking the proportion of experimental oak seedlings browsed by deer. This approach, established in the Cornell study (Blossey 2014), offers a useful indicator of current deer browse intensity, and comprises a clear metric that can be repeated annually to track how deer browse damage changes in response to deer management efforts.

Key findings:

- **Deer damaged 61% of unfenced experimental seedlings overall**, with browse rates ranging from 20–90% depending on the park. This level exceeds the 15% recommended by Blossey (2014) as likely to reduce forest regeneration.
- **Deer browse affected the largest proportion of seedlings, and was most intense (with repeated browsing), in Bird Hills, White Oak, Furstenberg, and Nichols Arboretum.** Other sites with high browse damage include the Huron Hills Golf Course Nature Area and Huron Parkway Nature Area.
- **Deer did four times more damage than small mammals (including rabbits, chipmunks, and voles).** Deer damaged a higher proportion of seedlings than small mammals in all except one park (Fritz).
- **Most deer browsing on oak seedlings occurred between April and December.**
- **Unfenced seedlings accessible to deer were significantly more likely to die, and less likely to thrive (grow), than fenced controls.**

Recommendations for future monitoring

While this pilot study offers a useful metric and important initial data, three minor changes to the methods could improve the data: Using container-grown seedlings for more standard initial conditions and better transplant success; planting seedlings in spring, so that transplant mortality can be assessed and compensated for; and discontinuing use of fenced control plots (which served their purpose of demonstrating that red oaks survive and grow in sites when protected from deer) in order to assess more sites. In addition, more species could be monitored to yield a broader perspective on how deer are affecting diverse plants, including spring wildflowers and those important to pollinators.

BACKGROUND

One component of the Ann Arbor deer management plan is to “establish a baseline for measuring the vegetative impact of deer in the City’s natural areas and establish an ecological goal” (<http://www.a2gov.org/departments/community-services/Pages/Deer-Management-Project-.aspx>). This pilot study for the City of Ann Arbor comprises one method and presents data focused on two interrelated questions:

- What are baseline levels of deer browse damage to vegetation in natural areas in Ann Arbor city parks as of 2015–2016?
- What metric(s) can be used to periodically assess deer browse intensity and examine how deer management efforts are affecting it?

After considering various study methods, the City chose to do an experimental planting of red oak seedlings across natural areas in 10 city parks, initiated in November-December 2015. A preliminary report (October 2016) presented results from the first 9 months of monitoring. This final report presents from a full year of monitoring and additional analyses to address deer browse intensity and seedling survival and growth.

EXPERIMENTAL METHOD: RED OAK SEEDLINGS AS BROWSE INTENSITY INDICATORS

Several major methods are available for assessing deer impacts on diverse plant species over time (outlined in an earlier report, Courteau 2015). We selected an ***experimental browse intensity indicator*** or “sentinel seedling” method—planting red oak seedlings across a range of sites and monitoring them for browse damage over the course of the year (Blossey 2014). This method offers a clear and repeatable metric with the following characteristics:

- Provides initial **local** and **site-specific** data on deer browse intensity.
- Offers **standardized measurement in a single clear metric** across various sites.
- **Distinguishes deer damage from other sources of vegetation change.**
- Can be repeated annually to assess how deer management efforts are altering deer impacts on vegetation.

The experimental design used in this study was developed by Blossey and others for use in Ithaca (the “Cornell study,” Blossey 2014), and have been applied in various other communities and park systems. We previously used similar methods to assess impacts of deer and other mammalian herbivores on two native tree species (Courteau 2005).

Why use red oaks?

Red oak (*Quercus rubra*) was selected as the experimental species for several reasons:

- The species naturally occurs in **all** city natural areas assessed.
- It comprises an ecologically meaningful measurement because it represents a key Ann Arbor ecological community (oak/hickory forests) and important ecological functions (tree and forest regeneration, habitat, food source for many species).
- Oak regeneration has been declining in much of Michigan and the northeastern U.S., concerning many forest scientists and conservation managers (Lee & Kost 2008, Abrams 2003).
- Red oak is a species of **intermediate** deer preference—not the first and most nutritious food to be browsed by deer, so it doesn't represent the most sensitive species (MI DNR), but not the last food either (Blossey 2014). Because this species is not highly preferred, it offers a somewhat conservative indicator.
- Nursery seedlings and acorns of Michigan genotype are readily available.

Deer browse damage on oak seedlings can be distinguished from small mammal damage.

While deer browse may affect many wildflower species that are also of interest for their ecological importance (providing resources for pollinators including butterflies and bees, as well as various species of birds), the advantage of using a woody species, such as red oak, is that deer browse damage on woody stems can be readily distinguished from browse damage by other mammals that eat tree seedlings (Salmon & Passof 1989, UK Forestry Commission 2017).

- Deer lack upper front teeth (incisors), so their browsing leaves a ragged edge with a “shreddy” appearance. Browsing most often occurs at heights of 2–3 feet, but may be done at heights as low as 2” or as high as 6.’
- Rabbits and woodchucks have large and sharp incisors that leave clean cuts, generally at a 45° angle. Browsing most often occurs at heights of 3–16”, but may be done at heights of up to 3’ in years with heavy snow cover.
- Voles and mice chew on bark, and voles may chew through whole stems, within 3” of ground level or below-ground, leaving small tooth marks less than 1/8” wide.

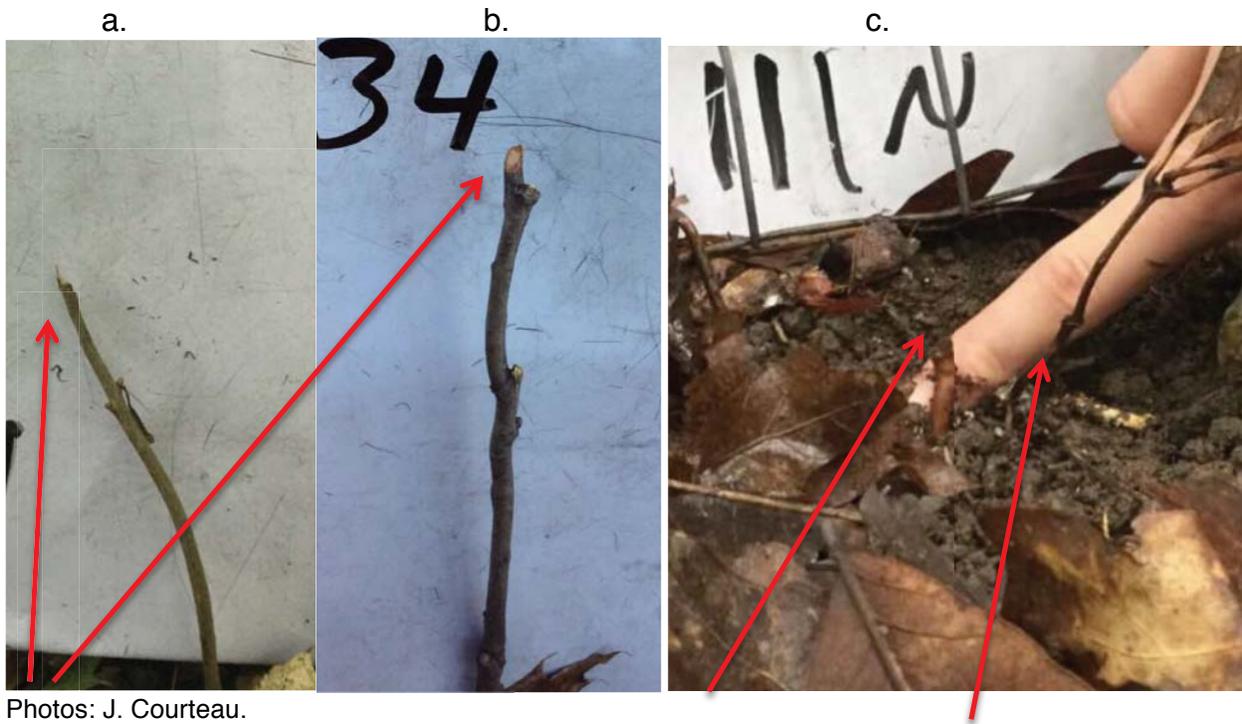
Figure 1. Deer browse in comparison to rabbit and vole damage. Deer produce “shreddy” cut, in contrast to clean, clearly angled rabbit (or woodchuck) damage (upper photo) and the toothy gnawing by voles and mice (lower photo).



Photo credits: Deer vs. rabbit browse, <http://octrackers.com/analyzingtherabbittrack.htm>; vole damage, Missouri Botanical Garden (<http://www.missouribotanicalgarden.org/gardens-gardening/your-garden/help-for-the-home-gardener/advice-tips-resources/pests-and-problems/animals/voles.aspx>).

Figure 2. Deer vs. small mammal damage in Ann Arbor experiments.

- a) Deer browse with characteristic shreddy edge. b) Rabbit browse with angled edge.
c) Seedling gnawed through by vole, near ground level; stem left behind.



Photos: J. Courteau.

How does deer browsing affect red oak seedlings? Why is the proportion of seedlings browsed important?

Numerous studies over the past two decades have reported that deer browsing leads to forest regeneration declines.¹ Although many plant species can tolerate moderate levels of herbivore damage, deer browse on woody plant buds and branch tips is likely to affect the apical meristem tissue key to plant growth (Reznicek, pers. comm., June 2015). Mammalian browse damage makes seedlings more susceptible to drought, disease, and insect attacks. My previous research has shown that browsing on tree seedlings by any mammalian herbivore (generally, when full stems are clipped) leads to a significant increase in mortality in the following season (Courteau 2005). Others have found that browsing that affects 50% or more of woody sapling buds or branches is likely to lead to mortality (Winchcombe 2016).

The proportion of tree seedlings that are browsed each year is a key indicator of forest regeneration impacts. As noted by Blossey (2014), tree regeneration declines when more than 15% experimental seedlings in a given site are browsed per year:

An individual oak seedling may need 10–20 years to grow out of reach of a deer under a forest canopy, and even longer to get into the canopy. In many instances, seedlings/saplings need to spend extended periods in the understory waiting for their chance to grow should the overstory be damaged (or harvested). Considering this early life history, more than an occasional browsing event on oak sentinels (damage to >3 of 20 [15%] seedlings) in any given year would indicate deer populations in the area are too high to achieve forest regeneration.

Therefore, the metric used in this report—the proportion of experimental oak seedlings browsed by deer—provides a useful indicator of current deer browse intensity and offers a clear metric that can be repeated annually to track how browse intensity responds to deer management efforts.

Oak seedlings may be a conservative gauge of deer browse damage on the full suite of forest species. As noted in the Blossey (2014) report,

...[M]ore preferred and browse-sensitive species, such as red and white trilliums (*Trillium erectum* and *Trillium grandiflorum*, respectively...), are severely browsed even in places where we see good survival of oak seedlings.

Blossey (2014) monitored existing trillium populations, rather than experimental plantings, as have many studies in urban areas and parks including Montgomery County, Maryland (1995), Swarthmore College (Latham 2013), and Cuyahoga Valley National Park (National Park Service 2015). A separate study to assess deer browse damage on trillium in Ann Arbor natural areas was initiated in spring 2016, and preliminary results will be available in summer 2017.

¹ Several major studies and reviews that describe deer impacts on forest vegetation and other wildlife species include Strohmayer & Warren 1997, Rooney & Waller 2003, Rawinski 2008, Rawinski 2014, Frerker, Waller & Sabo 2014, and Pendergast et al. 2016.

PILOT STUDY METHODS

SITE SELECTION AND SEEDLING INSTALLATION

We planted 370 red oak seedlings in 10 city park natural areas from November 30–December 16, 2015, as shown in Figure 3 and Table 1. One city park natural area (Bird Hills) was large enough that seedlings were planted in 2 separate areas of the park, indicated as Bird Hills Newport (near M-14 and the Newport Road park entrance) and Bird Hills Bird Road (near Huron River Drive and the Bird Road park entrance).

In addition to city parks, University of Michigan Nichols Arboretum (Bob Grese, director) contracted a separate study of deer impacts in the Arb using the same monitoring protocol with 50 red oak seedlings, and they have generously agreed to share their data. This report shows results for both studies, a total of 420 seedlings.

Sites were selected with several criteria:

- to encompass a range of large and smaller parks, including those with high-quality natural areas (such as Bird Hills, Mary Beth Doyle, Black Pond Woods);
- to represent areas found in the 2015 aerial survey to have higher and lower deer densities; and
- to achieve geographical coverage of the city.

Natural areas are not evenly distributed throughout the city, and we were not able to assess any natural areas in Ward 4, which lacks public spaces with mature oak forests other than Pioneer Woods (which is owned by Ann Arbor Public Schools).

Within each natural area, we selected planting sites in mature oak forests (typically dominated by red and/or white oaks, and occasionally black oak), on level to moderately sloping ground, where ground vegetation was open enough to permit access by deer (and by researchers). We aimed to place seedlings at least 15' from trails to minimize human impacts, but a few seedlings are closer to trails in the smaller parks.

The general goal was to plant 40 seedlings per site in paired plots (half fenced and half unfenced) so that there would be 20 unfenced seedlings to assess for each natural area. We planted more seedlings in larger sites (Bird Hills Park and Nichols Arboretum). Fewer seedlings were planted in the three smallest parks (Fritz, Huron Hills Golf Course Nature Area, and White Oak), and in the Bird Road section of Bird Hills.

Figure 3. Experimental planting sites (monitoring locations). Map: Natural Area Preservation.

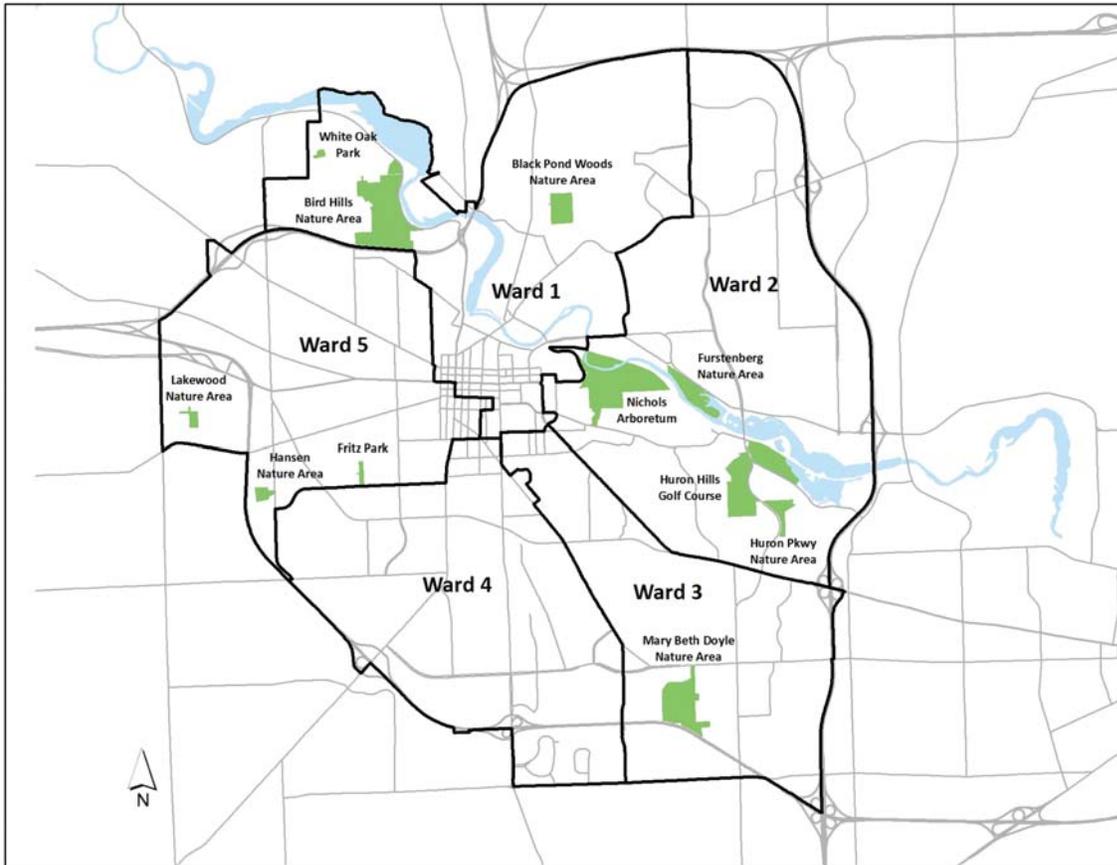


Table 1. Sites and seedling numbers. Seedlings were planted at 9 Ann Arbor natural areas (2 sites within Bird Hills) and the University of Michigan Nichols Arboretum.

WARD	SITE	TOTAL OAK SEEDLINGS	# FENCED	# UNFENCED
1	Bird Hills/Bird Road	20	10	10
1	Bird Hills/Newport	50	25	25
1	Black Pond Woods	40	20	20
1	White Oak	20	10	10
2	Arboretum	50	25	25
2	Furstenberg	40	20	20
2	Huron Hills Golf Course	20	10	10
2	Huron Parkway	40	20	20
3	Mary Beth Doyle	40	20	20
5	Fritz	20	10	10
5	Hansen	40	20	20
5	Lakewood	40	20	20
	TOTAL	420	210	210

FENCED CONTROL PLOTS

For this pilot study, one half of the 420 seedlings were fenced to protect them from deer but allow access by small mammals, so that survival and growth of seedlings affected by deer could be compared to a control group. Fences were 18" diameter by 4' tall cylinders of 2" X 4" welded wire mesh, secured to 3' garden fence posts. Within each seedling pair, seedlings were randomly selected for fencing. Seedlings were placed in paired plots at roughly 15' intervals along a transect, with the direction and distance from the transect randomized (within 5' to 12'), to avoid creating a discernible pattern, and unfenced seedlings were not marked with flags or tags that deer could learn.

Fences did not completely exclude deer: 13% of fenced seedlings showed evidence of deer browse on seedlings at or just inside the fence edge. However, damage was less extensive on fenced seedlings with fewer twigs and buds, or only leaves browsed.

EXPERIMENTAL SEEDLINGS

Red oak experimental seedlings were nursery-grown Michigan genotype seedlings in the 12-18" size class, obtained as bare-root stock from Cold Stream Nursery in Free Soil, Michigan. Seedlings in the height class varied considerably in age, diameter, and branching patterns, and many had signs of pruning as well as previous browse damage by deer and/or rabbits. To distinguish initial damage from browsing that occurred after planting, initial damage was marked with water-resistant paint and all seedlings were photographed at planting time for comparison to later assessments. Seedlings were paired by size and branching patterns to the extent possible.

Seedling condition was difficult to assess accurately during the winter dormant state, and it was not possible to determine transplant mortality (death within the first month) during the winter or compensate for it by replanting once the ground had thawed.

MONITORING

Seedling planting locations and initial height were documented on the ArcGIS Collector app, and photos were taken to show initial condition and allow for comparison to later measurements (Figure 4). Seedlings were monitored five times during 2016 to evaluate survival and condition during a full year, and to assess browse damage (Table 2).

All browsed seedlings were measured to characterize browse damage (height, number of branches browsed) and examined carefully using a 10X hand lens to identify the browser (deer vs. small mammal, including rabbits/woodchucks, voles/mice, and squirrels/chipmunks) and a photo was taken. Additional notes were taken on insect damage, wilt or dieback (likely from drought), and damage from other sources (including fallen tree limbs and vandalism).

Figure 4. Seedling monitoring: Before and after photos of experimental red oak seedling: a) At planting time, December 2015. b) At second monitoring time, April 2016. Red arrows indicate the deer-browsed branch. In photo b), shredded bark is just visible at edge where deer browsed buds and part of stem (dotted line), and seedling lacks the sharp angle characteristic of rabbit or woodchuck browse.

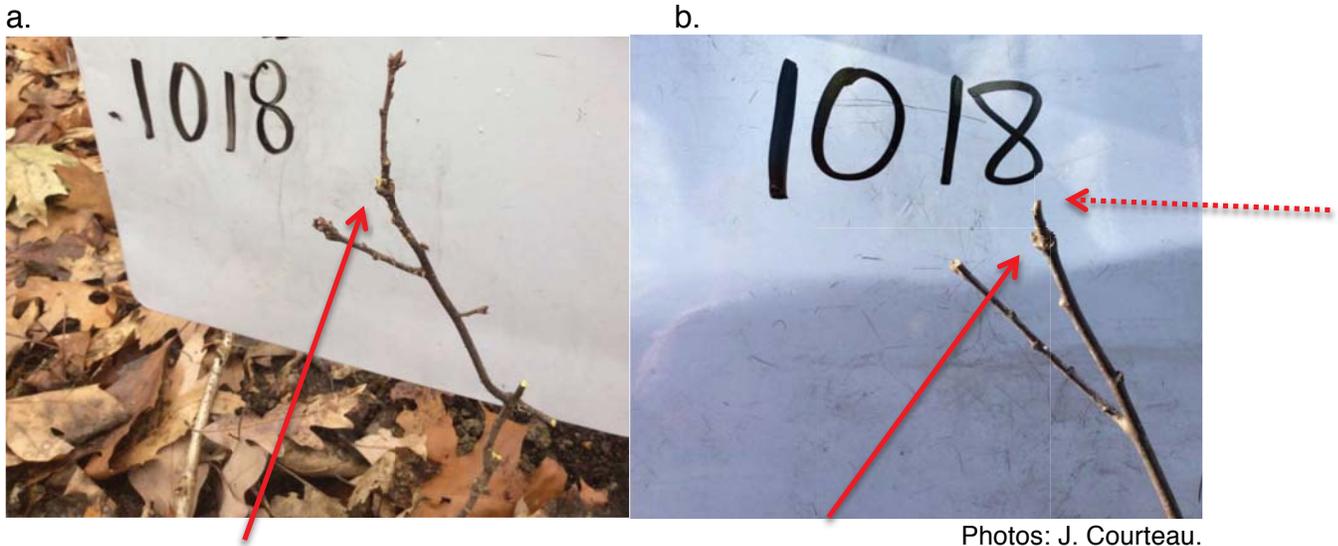


Table 2. Planting and monitoring dates for red oak experimental seedlings.

Planting:	Nov 30–Dec 16	2015
Monitoring 1:	Jan 6–Feb 5	2016
Monitoring 2:	Mar 14–April 6	2016
Monitoring 3:	May 29–Aug 1	2016
Monitoring 4:	Aug 4–Sept 21	2016
Monitoring 5*:	Dec 9–30, Jan 9, 19	2016–17

* The final monitoring aimed to assess seedlings one year after planting, and most sites were measured within one year \pm 2 weeks. Technical difficulties delayed final measurements at two sites to 3–5 weeks.

DATA ANALYSIS

Data compiled in Collector was exported to Excel for compiling descriptive statistics (averages, totals, cumulative totals) and comparing browse proportion across sites. Data on survival, condition, and growth were not continuous and normally distributed, so they were analyzed with a Chi-square analysis, rather than Student’s t-test or analysis of variance (ANOVA).

This report includes data for all 420 seedlings are analyzed for survival, condition, and growth, as well as overall mammal damage. However, all analyses of browse damage focus on the 210 unfenced seedlings. Deer browse damage on fenced seedlings is not included that analysis because the experiment was set up to compare unfenced vs. fenced seedlings.

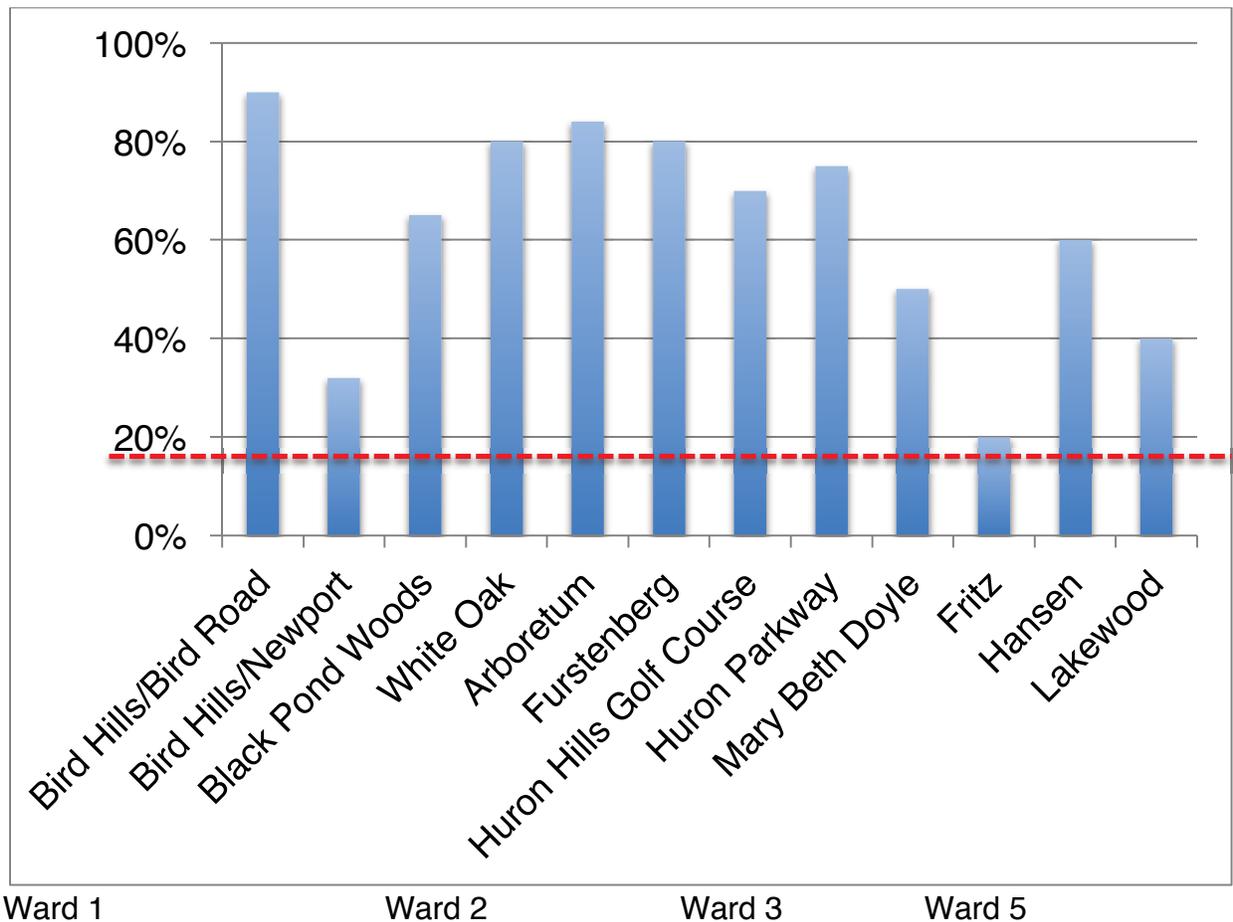
KEY FINDINGS

HOW MUCH BROWSING DID DEER DO?

Deer browsed 61% of unfenced experimental red oak seedlings.

Overall, 61% of seedlings accessible to deer (unprotected by fencing) were browsed by deer at least once. Browse damage ranged from 20%–90% across sites. More than half of the sites had 60% or more seedlings browsed. Browse of more than 15% of seedlings per year is likely to interfere with forest regeneration (Blossey 2014).

Figure 5. Proportion of experimental red oak seedlings browsed by deer. The dotted red line indicates the 15% annual browse level above which forest regeneration is unlikely to succeed (Blossey 2014). This figure shows data only for unfenced seedlings; it does not show the 28 fenced seedlings that were browsed by deer.



*NOTE: Monitoring in the Arboretum was a separate study, commissioned and paid for by University of Michigan Matthaei Botanical Gardens & Nichols Arboretum (UMBGNA); data are included here for reference, courtesy of Bob Grese and UMBGNA.

WHERE DID DEER DO THE MOST DAMAGE?

Browse intensity (repeated browsing) was highest in Bird Hills, White Oak, Furstenberg, and Nichols Arboretum.

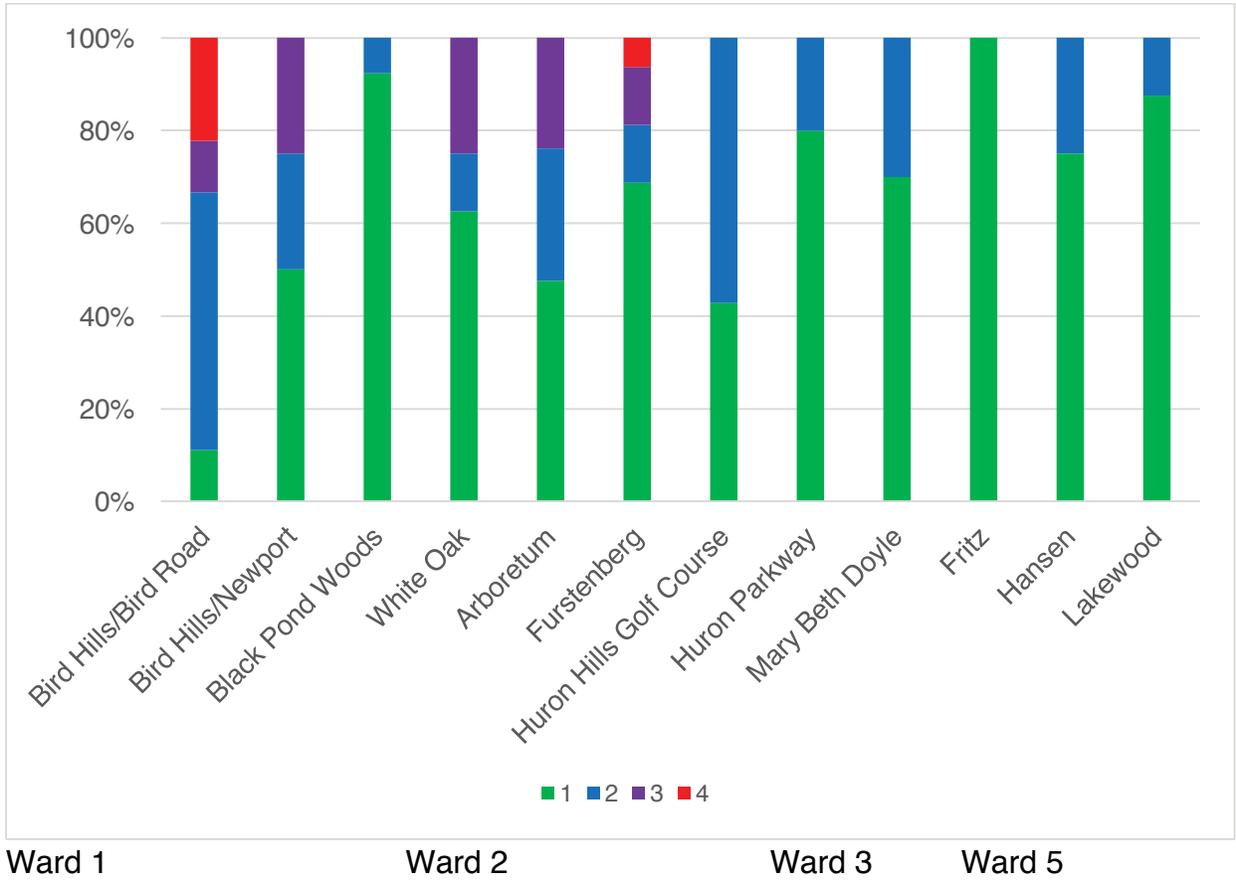
Any browse damage can make tree seedlings more susceptible to drought, insects, and other stressors, but the greater the browse damage, the harder it can be for seedlings to recover; browse damage levels of 50% or more of the branches or buds on a tree seedling are likely to lead to mortality (Winchcombe 2017). Although this pilot study was focused on ***whether*** seedlings were browsed, rather than ***how much***, the 2015–16 data provide an initial indication of browse intensity. At each monitoring period, new browse damage was recorded, so the number of browse incidents can be tallied.²

Of seedlings that were browsed by deer, most were browsed once or twice during the year (88% of unfenced deer browsed seedlings, Figure 6). However, 12% of seedlings, in 5 sites, were browsed 3 or 4 times. Natural areas in the Northeast and Northwest sections of the city (Wards 1 and 2, including Bird Hills, White Oak, Furstenberg, and Nichols Arboretum), had the highest browse intensity.

A comparison of browse proportion (Figure 5, above) and browse intensity (Figure 6, below) shows that, in most cases, sites where seedlings were browsed repeatedly by deer were those where a high proportion of seedlings were browsed. One exception to the pattern is Bird Hills/Newport Road, where around 30% of seedlings were browsed, but half of them were browsed 2 or 3 times. This suggests that within the larger Bird Hills site, deer were browsing in certain areas more than others. Rawinski (2014) has noted that the spatial distribution of deer browse (“herbivoclines”) may be due to proximity to roads and trails, steep slopes, presence of people, and other factors.

² Initial seedling condition was highly variable and it was not possible to assess (on dormant seedlings) how many living branches were available to be browsed in order to calculate the % of browse damage on each plant. However, the number of browse incidents (# of times browsed) serves as an indicator of browse intensity.

Figure 6. Browse intensity: number of times unfenced seedlings were browsed by deer. For those seedlings that were browsed by deer, this figure shows the proportion of seedlings that were browsed 1, 2, 3, or 4 times.



HOW DID DEER BROWSE COMPARE TO DAMAGE FROM OTHER HERBIVORES?

Overall, deer browsed 4 times as many seedlings as did small mammals.

Oak seedlings may be browsed by various mammalian and insect herbivores, so we assessed and compared browse damage from deer to damage by other herbivores—small mammals and insects. This study found damage to woody stems of oak seedlings from a range of small mammals, including rabbits/woodchucks, voles/mice, and squirrels/chipmunks.³ Insect damage on leaves was assessed separately.

Both deer and small mammals damaged the experimental red oak seedlings, but deer damaged 4 times as many seedlings. Out of 210 unfenced experimental seedlings, 151 (72%) showed signs of any mammal damage. Deer alone damaged 52% of seedlings, while another 9% of browsed seedlings were affected by both deer and small mammals (Table 3), for a total of 129 seedlings (62%) browsed by deer. Small mammals alone were responsible for damage on 13 seedlings (6%); with the 19 seedlings (9%) that were also browsed by deer, 32 seedlings (15%) showed small mammal damage.

Table 3. Number of seedlings browsed by deer compared to other mammalian browser. A total of 151 out of 210 unfenced seedlings were browsed at least once by a mammalian browser. Some seedlings were browsed more than once, either by deer, by deer and small mammals, or in a few cases, by different small mammals. The “Other” category includes cases in which the cause of the damage could not be classified with certainty, including several cases that were likely deer browse or deer trampling but for which browse marks were ambiguous.

Browser identity	# seedlings browsed	% of 210 unfenced seedlings	% of 151 browsed seedlings
Deer only	110	52%	72.8%
Deer + small mammal	19	9%	12.6%
Small mammal only	13	6%	8.6%
Other/not clearly identifiable	9	4%	6.0%
Total # seedlings browsed	151	72%	

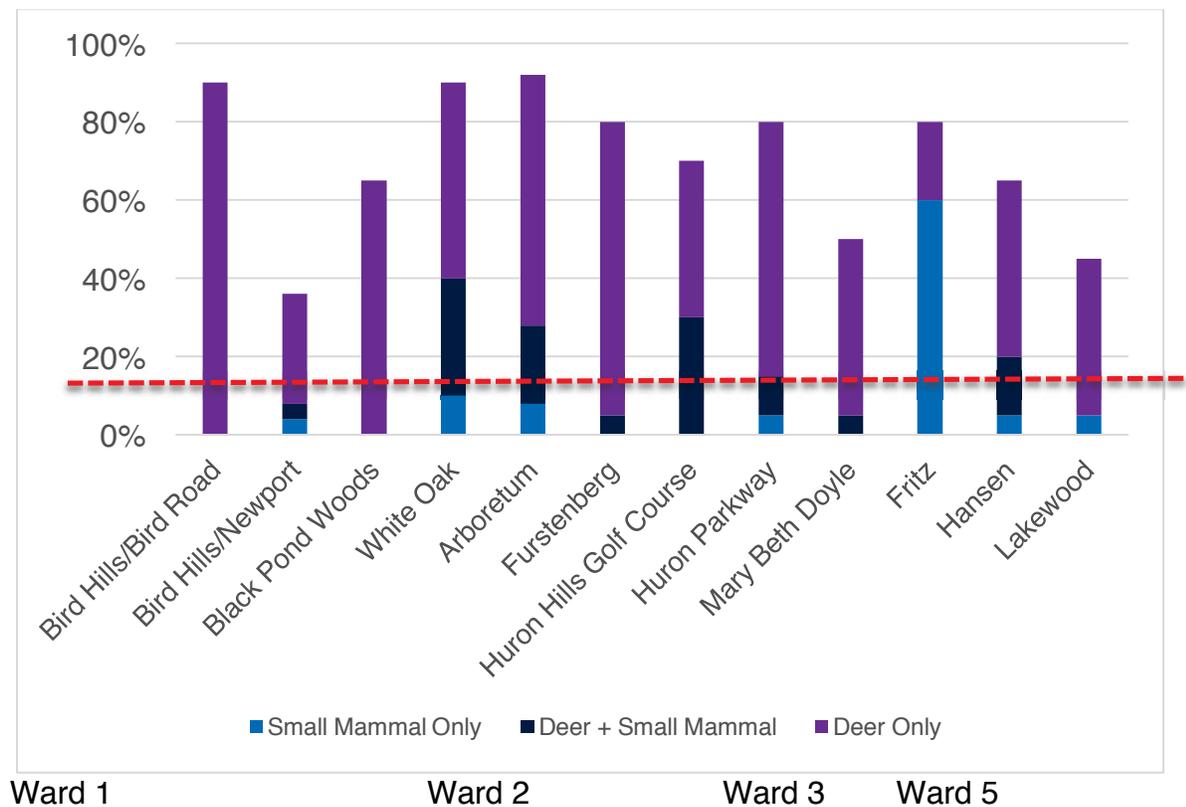
³ Small mammals that chewed on experimental seedlings included rabbits/woodchucks, squirrels/chipmunks, and mice/voles. Rabbits and woodchucks, as well as squirrels and chipmunks, may clip off woody stems and branches with sharp incisors. Mice and voles nibble bark of woody stems, and voles may chew through whole stems at ground level or below. Rabbit and woodchuck damage are grouped, as are squirrel and chipmunk damage, because browse damage is similar in pattern and impact, and hard to differentiate based on browse scars alone. Droppings and other signs suggest that the rabbit/woodchuck damage was primarily by rabbits, while squirrel and chipmunk signs were both observed. Damage by insects on leaves was categorized separately; caterpillars (such as gypsy moths) and sap-sucking aphids can chew through or mine leaves, potentially defoliating significant portions of tree seedlings.

Deer damaged more seedlings than did small mammals in all except one site.

Overall, the proportion of seedlings damaged by small mammals was much lower than the proportion browsed by deer damage (Figure 7). Some small parks (such as Fritz, Huron Hills Golf Course, and White Oak) had relatively larger proportions of seedlings damaged by small mammals. Fritz was the only site where damage by small mammals was greater than damage by deer.

Some seedlings were browsed by both deer and small mammals. In many cases where this occurred, rabbits browsed seedlings over the winter, the seedlings resprouted in the spring, then deer browsed the resprouts.

Figure 7. Proportion of experimental red oak seedlings browsed by deer vs. small mammals. The dotted red line indicates the 15% annual browse level above which forest regeneration is unlikely to succeed (Blossey 2014).



OTHER FINDINGS

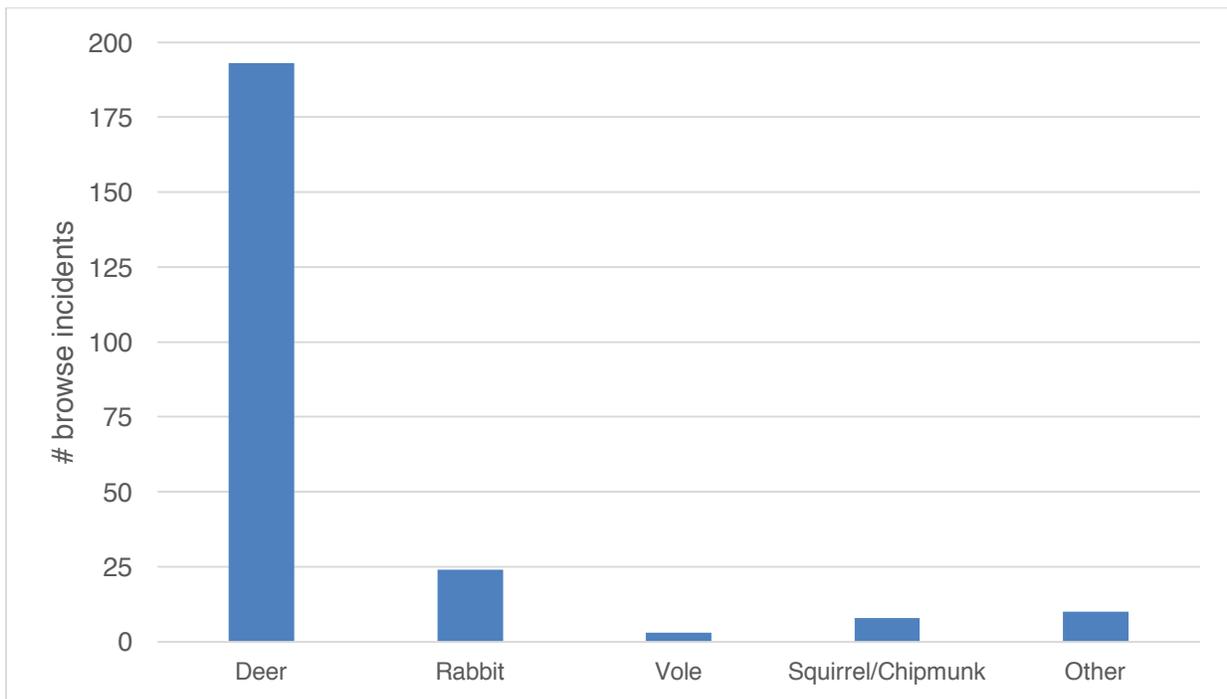
The incidence of deer browse was more than 4 times higher than that of other mammalian herbivores.

All new browse damage was recorded at each monitoring period as a “browse incident”; a seedling could have multiple browse incidents if browsed more than once or by different animals. In all, 238 browse incidents were observed on the 210 unfenced seedlings.

Deer browse incidents comprise 81% of the total, more than four times as many as from all types of small mammals combined. Rabbits make up 10% of the total, squirrels/chipmunks were 3%, and voles/mice were just over 1% of the total. The “Other” category includes cases in which seedlings may have been trampled by people as well as several in which the cause of the damage could not be classified with certainty, including several cases that were likely deer browse or deer trampling but for which browse marks were somewhat ambiguous.

(This analysis is focused on damage to unfenced seedlings and does not include the 28 fenced seedlings that were browsed by deer.)

Figure 8. Proportion of browse incidents on unfenced seedlings by deer compared to small mammals. Any new browse damage noted during a monitoring period was counted as a “browse incident.”

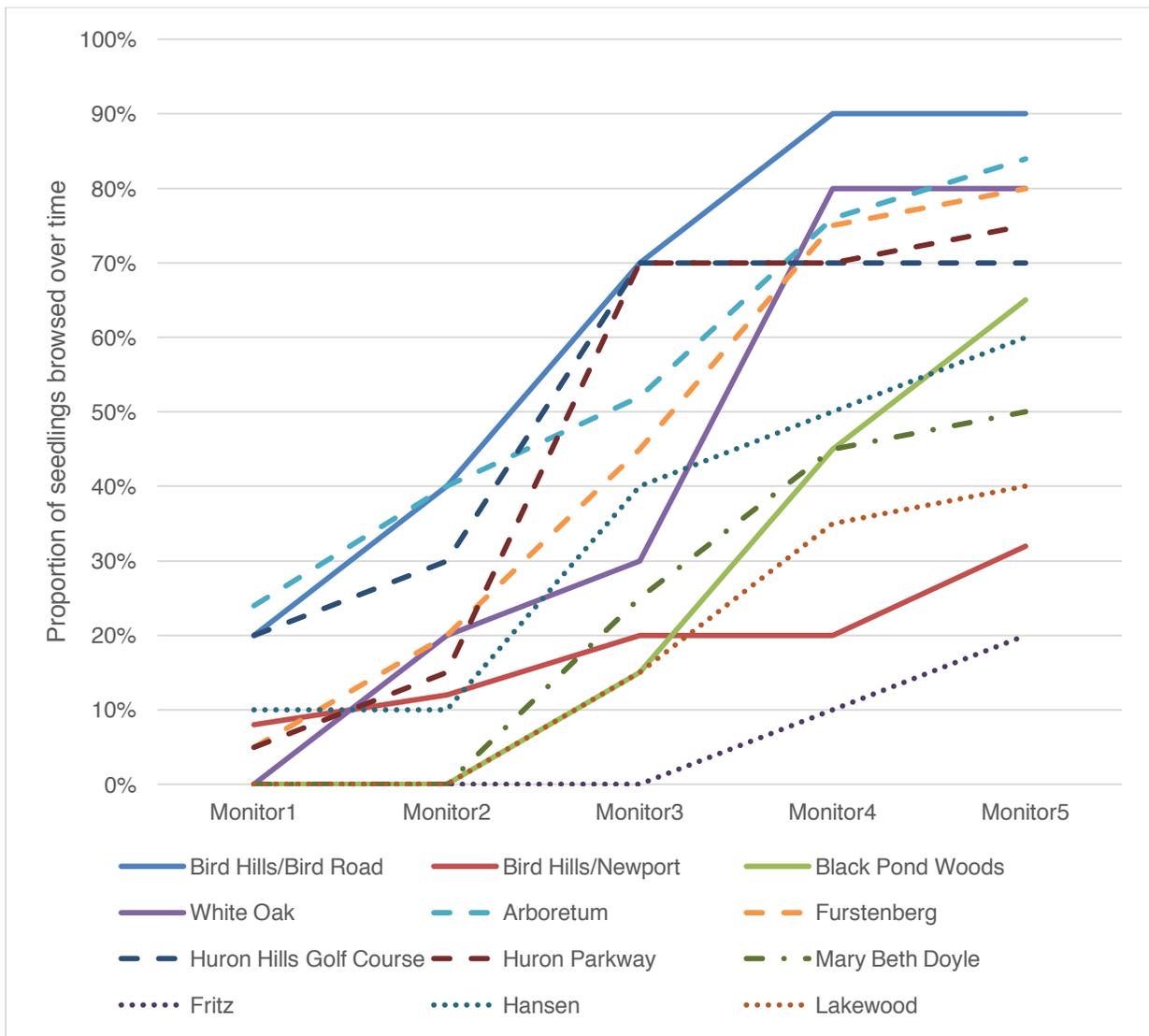


WHEN DID BROWSE DAMAGE OCCUR?

Most seedlings were browsed by deer between April and December rather than during the winter.

The seasonal patterns of deer browsing varied somewhat across parks. In general, at parks with the highest overall browse intensity, seedlings were first browsed relatively soon after planting and early in the year, while at some parks, seedlings were browsed throughout the year (Figure 9). Small mammal browse (not shown here) showed a different pattern, with most rabbit damage occurring during winter (January through April), and squirrel/chipmunk occurring during summer (late May through September).

Figure 9. Cumulative deer browse damage over time. Proportion of the 210 unfenced seedlings browsed over the course of the different monitoring periods.



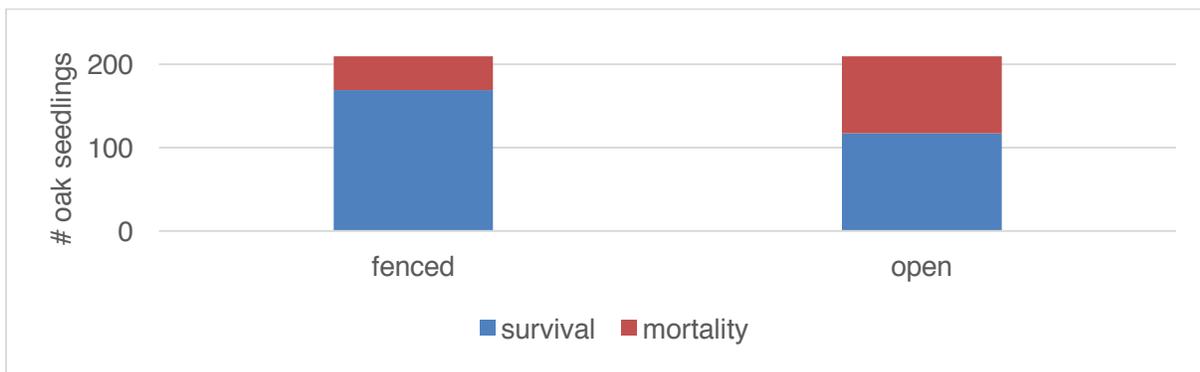
SEEDLING SURVIVAL AND GROWTH IN OPEN VS. FENCED CONTROL PLOTS

Fences did not completely prevent deer from browsing seedlings, and somewhat limited small mammal access. However, the experimental design of paired plots, with fenced seedlings serving as a control with deer mostly excluded, allows for comparisons of seedling survival and growth.⁴

Unfenced seedlings open to deer were more likely to die than fenced controls.

Total seedling mortality across all sites where deer were allowed was 44%, compared to 20% for fenced controls (Figure 10). A chi-squared analysis shows that this difference is significant ($p < 0.01$; $\chi^2 = 29.63$, d.f. = 1), with a probability of less than 1% that the result is due to random chance or natural variability.

Figure 10. Total proportion of survival and mortality of fenced vs. open seedlings. Totals for the 210 fenced seedlings compared to the 210 open (unfenced).



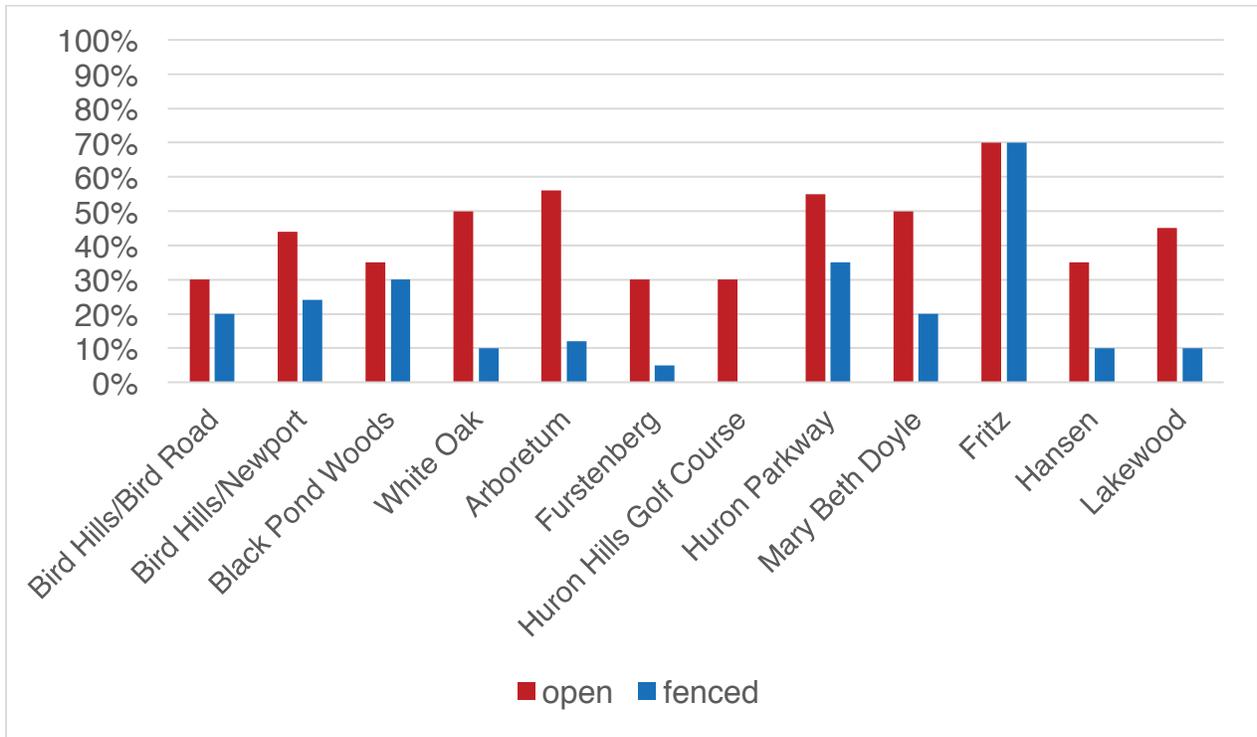
Insects and drought may have contributed to mortality, but effects would have been similar across fenced and unfenced seedling pairs (6–20 feet apart). Leaf damage by caterpillars (likely gypsy moths) was notable in May and June. Estimated damage on most seedlings was less than 10% of total leaf area, but 8% of seedlings had 50% or more leaf area removed. There was limited rainfall during the growing season: although drought was not officially declared, the months of April through July 2016 all had below-average rainfall, and there was no rain at all for 5–6 straight weeks during July and early August. Many experimental seedlings (and other plants at study sites) showed drought stress, including severe wilt and dieback. Several seedlings were also damaged by vandalism (2–3 fences were smashed and seedlings broken) and by trees or large limbs that fell during storms and high winds (8–10 seedlings bent, but only 1 broken).

⁴ There were 28 deer browse incidents on fenced seedlings (13%), where seedlings either leaned against the fence or deer pushed through fence openings, but damage was typically less than on unfenced seedlings. Bird Hills/Bird Road, Furstenberg, and Huron Hills Golf Course Nature Area all had 20% of fenced seedlings browsed by deer. Fences were designed to allow access by small mammals, but somewhat reduced their activity: small mammal browse incidence was lower inside than outside fences (10 browse incidents vs. 45). Small-diameter fences with 2X4" mesh were used to reduce costs and site disruption.

Seedling mortality was higher in unfenced deer-accessible vs. fenced control plots in all but one site (Fritz Park).

Seedling mortality ranged from 30–56% by site of unfenced seedlings accessible to deer, and from 0–35% by site where seedlings were fenced, except at Fritz Park, where both fenced and unfenced seedlings had a mortality rate of 70%.

Figure 11. Seedling mortality of unfenced (open) vs. fenced seedlings by site.



Variation in seedling mortality across sites could have been due, in part, to poor initial seedling condition: the bare root seedlings shipped and planted on different dates appeared to vary in vigor, although condition can be hard to accurately assess when seedlings are dormant. A summary analysis of seedling condition at first monitoring period vs. survival did not show clear patterns across fenced and unfenced plots.

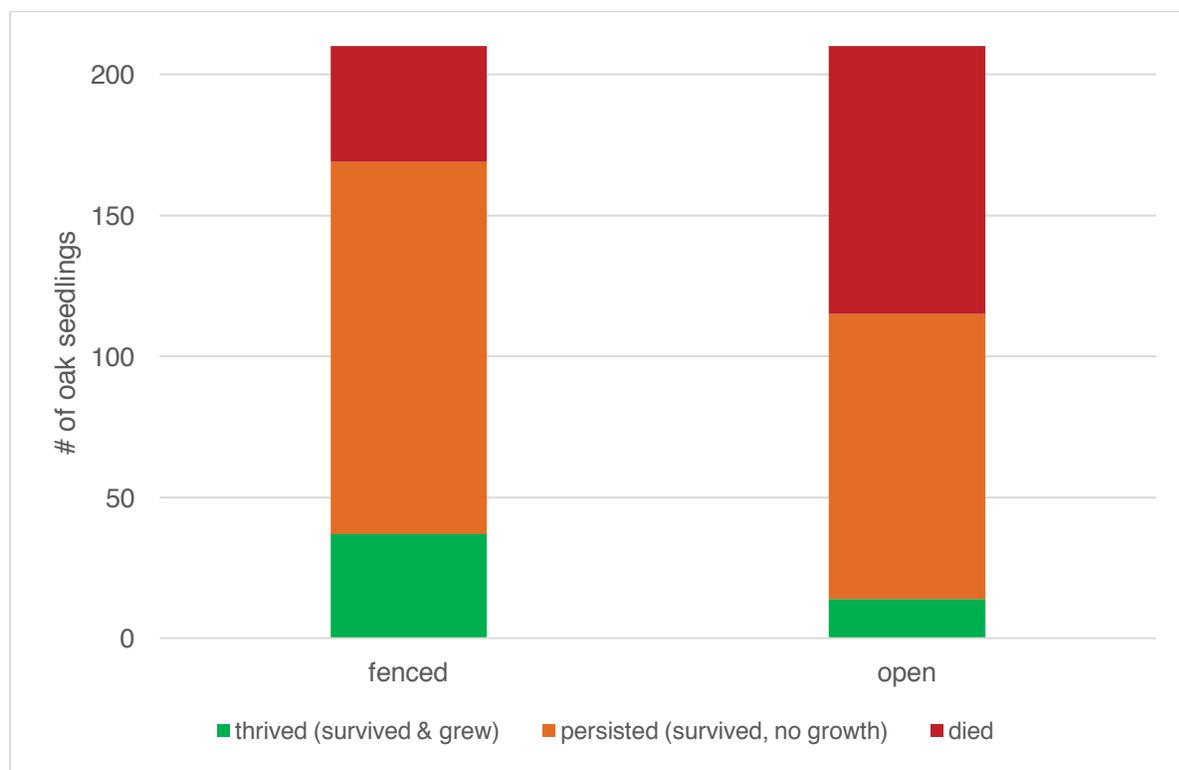
Analyses of whether initial condition was linked to the likelihood of browse damage, and whether browse intensity was correlated with higher mortality did not show clear patterns or significant chi-squared results, for several possible reasons: seedlings in poor initial condition may have been less likely to be browsed (vigorous plants are likely more nutritious and preferred by deer) but still likely to die; assessment of initial seedling condition during dormancy was difficult; and browse incidence (number of times browsed) may not fully indicate amount of browse damage on seedlings with varying branch patterns and diameters.

Unfenced seedlings were less likely to grow than fenced controls.

Of the oak seedlings that survived, some thrived and grew in height over the season, while others persisted with no change in height, and many died back (the height to living buds was lower at the end of the growing season than initial height when planted).⁵

Among survivors, unfenced seedlings were significantly less likely to grow than fenced seedlings: 12% of 115 surviving unfenced seedlings showed growth, while 22% of the 151 surviving fenced seedlings grew. A chi-squared analysis shows that this level is significant ($p < 0.05$, $\chi^2 = 4.63$, d.f. = 1), indicating there is a probability of less than 5% that this result occurred by random chance. In terms of proportion of all seedlings planted, 7% of unfenced seedlings grew, while 18% of fenced seedlings did.

Figure 12. Total number of 210 oak seedlings that died, persisted, and grew across all fenced and open (unfenced) plots. Seedlings that thrived were those that grew over the season; those that persisted either did not grow or partly died back.



⁵ Height is not always the best indicator of growth but is the only measurement available for this study. Other measurements, such as change in biomass and diameter, were not practical and/or would not be meaningful given the variable initial seedling size. Height can increase more when plants are shaded—paradoxically, stems may elongate in shady conditions as plants attempt to grow toward light, even while lower resources lead to lower biomass gain—but shading was similar for paired plots, so it should not affect the overall comparison of height changes between open and fenced seedlings.

SUMMARY

This pilot experimental study, in which red oak seedlings were planted and monitored in 10 city parks (and in a separate study at the Arboretum), found that deer browsed a total of 61% of the oak seedlings, ranging from 20–90% across 11 sites—levels that exceed the 15% recommended in existing scientific literature as allowing for sustainable tree regeneration (Blossey 2014).

Although many studies in the literature have found that intense deer browsing can lead to declining forest regeneration levels, the 15% level proposed by Blossey (2014) is the only published figure to date that gives a specific number for the proportion of seedlings browsed per year that indicates that deer browse is too high to achieve tree regeneration. Waller (2016) notes that this is an area of active research and additional results will likely be published soon; he suggests that because site conditions vary, the acceptable level of browsing could be somewhat higher in some sites—but could be lower in others. However, the proportion of seedlings browsed by deer per year still serves as a useful metric for gauging whether deer management is resulting in less vegetation damage, and the accumulation of Ann Arbor data over time will allow us to understand browse impacts on tree regeneration in local sites.

Various mammals can damage tree seedlings, but deer did the most damage. Deer alone were responsible for 73% of the damage on the 151 unfenced seedlings that were browsed, with an additional 13% browsed by both deer and small mammals, for a total of 86% of browsed seedlings damaged by deer. A total of 9% of seedlings were browsed by small mammals only; including the seedlings also browsed by deer, 22% of seedlings showed evidence of small mammal browse.

Unfenced deer-accessible seedlings were significantly more likely to die than fenced controls protected from deer. For those seedlings that survived, unfenced seedlings were significantly less likely to grow in height than fenced controls.

Red oaks were chosen as experimental browse damage indicators because they are intermediate in browse preference. Thus, the levels documented here may not fully indicate the browse damage on more sensitive species, such as trilliums and other spring wildflowers. Trilliums are being assessed in a separate study established in 2016 for which preliminary data will be available in 2017.

RECOMMENDATIONS FOR FUTURE MONITORING

This pilot study demonstrated that experimental plantings of red oak seedlings offer a clear metric—proportion of seedlings browsed by deer—for gauging deer browse intensity. This protocol can be repeated annually to gauge how deer management efforts are affecting deer damage on vegetation.

Future studies could benefit from a few small modifications to the methods used in the pilot study. Four recommended changes include seedling source and initial condition; planting dates; and use of fenced experimental controls. In addition, more species could be monitored for a broader perspective on how deer are affecting diverse plants, including spring wildflowers and those of importance to pollinators.

Seedling source and initial condition: use 1–2 year-old container-grown seedlings

Due to timing of study approval and data needs, we used bare-root rather than container-grown seedlings for this pilot study because that was all that was available. In general, bare-root seedlings have lower transplant survival than container-grown seedlings, but it was difficult to assess seedling condition and transplant mortality during the winter dormant period. In addition, the bare-root seedlings in the 12–18” size class were highly variable in age, diameter, and form. Using first- or second-year container grown seedlings would offer more standard initial conditions and easily quantifiable browse damage amounts. First-year seedlings are shorter than the bare-root seedlings used in this pilot study (typically 4–8” rather than 12–18”), so they may be less likely to be discovered by deer, potentially leading to somewhat lower future browse levels compared to this pilot year. However, the Cornell study (Blossey 2014) used first-year seedlings in this size class.

Planting dates: consider planting in spring rather than winter.

During the pilot study, we planted seedlings during late November and December to ensure that data would be available by fall of 2016. However, transplant mortality could not be assessed while plants were dormant. Planting oak seedlings during spring (April or May) instead would allow for transplant mortality to be assessed. Seedling condition can be accurately assessed as soon as plants break dormancy and leaves emerge in May and June; seedlings that die or are in poor condition following transplanting (due to transplant shock rather than mammal damage) can be replaced within the first month. This would allow a clear analysis of connections between browse damage and mortality.

If seedlings are planted during the spring, a full year of monitoring would not be complete by the time deer management decisions are being made in the fall (October–November). However, analysis of the seasonal distribution of browse damage during this pilot year showed that most deer browsing at most parks occurred during the 2nd through 4th monitoring periods (April through September)—a total of 120 out of the 156 deer-browsed seedlings (77%) were first browsed during that time (Figure 9, above). Data for a shorter time period can be interpreted with this in mind.

Fenced experimental controls: not needed for future studies

This pilot study established that seedlings in fenced control plots had higher survival and growth than those in unfenced plots open to deer. However, the fences were costly and time-consuming, and did not fully protect seedlings from deer, effective control fences would have to be larger and costlier. The Cornell study (Blossey 2014) discontinued the use of fences after demonstrating the higher survival rates of fenced seedlings during the first year or two. Discontinuing the use of fences in future Ann Arbor studies would allow for planting more seedlings in more sites and focusing on the primary metric: proportion of seedlings browsed across sites.

To fully understand how deer management affects vegetation within and across the city's natural areas, more red oak seedlings could be planted and tracked at more locations within the larger parks (a need suggested by the differences within Bird Hills) and across more parks. In particular, Ward 4 should be represented in the survey, but was not because the major natural area within the ward (Pioneer Woods) belongs to the Ann Arbor Public Schools, rather than the city parks. A collaborative effort with the schools or Friends of Greenview could cover Pioneer Woods with the aim of understanding forest regeneration and furthering environmental education in areas where deer will not be managed—areas that can serve as a comparison for areas where deer populations are reduced.

Study species: Consider additional species beyond red oak seedlings.

This study focused on documenting current browse intensity with straightforward measurements in a clear, timely way. Because red oaks are of intermediate browse preference, they do not indicate damage to the most sensitive species. Future monitoring could be expanded to include more species and more sensitive species, such as trillium, either in experimental plantings or by using browse damage surveys on existing plants, to supplement the standard metric provided by red oaks. A preliminary study is underway to assess trillium in 4 parks, but this effort could be expanded to include an experimental approach with several species (e.g., wildflowers of importance to pollinators).

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INGHAM COUNTY PARKS & RECREATION COMMISSION

Meeting of July 24, 2017

MOTION TO RECOMMEND A MEMORANDUM OF UNDERSTANDING WITH MID-MICHIGAN MOUNTAIN BIKE ASSOCIATION (MMMBA)

To Recommend a Memorandum of Understanding (MOU) with Ingham County Parks and Mid-Michigan Mountain Bike Association (MMMBA) through January 1, 2022. The purpose of the MOU is to continue the high degree of cooperation between MMMBA and Ingham County Parks for mutually beneficial programs, projects and bicycling activities at the county level.



MEMORANDUM OF UNDERSTANDING

2017 – 2022

By and Between

Mid-Michigan Mountain Bike Association

&

The County of Ingham acting on behalf of the
Parks Department

MEMORANDUM OF UNDERSTANDING

between

Mid-Michigan Mountain Biking Association (MMMBA)

and

The County of Ingham acting on behalf of the Parks Department

This MEMORANDUM OF UNDERSTANDING is hereby made and entered into by and between the Mid-Michigan Mountain Biking Association, hereinafter referred to as MMMBA, and the COUNTY OF INGHAM, a municipal corporation and political subdivision of the State of Michigan (hereinafter referred to as the “County”) acting on behalf of the Ingham County Parks Department.

PURPOSE:

This MOU is intended to provide a written framework extending the collaboration between MMMBA and the County. for the continuation of mutually beneficial programs, projects and bicycling activities at the county level. These programs, projects and activities comprise part of the Ingham County Parks multiple use mission and serve the public.

NOW, THEREFORE, for and in consideration of the mutual covenants hereinafter contained, IT IS HEREBY MUTUALLY AGREED, as follows:

A. STATEMENT OF MUTUAL BENEFIT AND INTERESTS:

Ingham County Parks’ benefits include an active partnership with MMMBA to plan, build, maintain and promote designated mountain bike trails for the expanded use and enjoyment of mountain bike riders on Ingham County Parks trail systems.

This cooperative effort is provided through the strategic planning of trail development and provides a public service to all trail users.

B. Ingham County Parks may:

1. Work with MMMBA to identify opportunities (trail projects, education and assistance) and jointly pursue such projects with the mountain bike community.
2. Make Ingham County Parks lands available for mountain biking and related activities, subject to applicable laws, regulations, policy, plans and other management direction.
3. Include and utilize MMMBA technical expertise in Ingham County Parks programs as they relate to mountain biking and trail development. Provide to the public the appropriate rules and regulations pertaining to mountain biking on county property.
4. Under the supervision of park staff and when prior authorization has been granted, hand tools may be made available for volunteers working on trail maintenance. Such tools include but

are not limited to: shovels, leaf rakes, iron rakes, Mattocks, McLeod's, rogue hoes, bow-saws, folding hand-saws, machete, pruning shears, loppers, wheel barrels, etc.

5. Promote awareness and bicycle access throughout the Ingham County Parks trail system through social media, web forums, ride events and other channels.
6. Help identify and advocate for mountain bike current trends as part of the 5 year master plan public input and stake holder process by being responsive to user needs.
7. Works collaboratively with MMMBA in the development of way finding and signage design, concepts, and implementation program for Ingham County Trails.

C. MMMBA may:

1. Work with Ingham County Parks to identify appropriate partnership opportunities (trail projects, promotion and education programs) and jointly pursue such projects in conjunction with the mountain biking community and the Ingham County Parks.
2. Provide technical assistance with projects, educational activities, grant application, and mountain biking activities and management.
3. Under the direction of Ingham County Parks staff, assist in coordinating trail development and maintenance using volunteers.
4. Utilize IMBA (International Mountain Biking Association) best-practices for trail development and maintenance. This includes a focus on rider safety, environmental protection and sustainability.
5. Monitor the bicycle accessible multi-use trails designated for mountain bike use and to make alterations as needed to counter erosion problems as well as to improve the trail as deemed appropriate by Ingham County Parks trail managers.
6. Monitor the trail system and assist in removing incidental debris such as leaves, limbs, sticks, etc., on the mountain bike trails.
7. Organize volunteer trail maintenance events to assist in maintenance of the mountain bike accessible trails within the confined resources of the MMMBA.
8. Perform regular inspection of all built trail structures that are specific to the mountain bike accessible trails. This will be completed once a month using a comprehensive checklist/worksheet (attached) to ensure that all structures are in good condition. These inspections will be completed in season when mountain bike accessible trails are open. Needed repairs will be made as soon as is reasonable; whenever they are discovered or reported by riders or park personnel. MMMBA and Ingham County Parks to coordinate when necessary on larger trail maintenance projects.
9. Obtain Ingham County Parks approval prior to implementation of any new trail development, outside trail line improvements and other major maintenance beyond basic trail care.
10. Encourage safe and courteous trail use and responsible bicycling.
11. Promote awareness and bicycle access throughout the Ingham County Parks trail system through social media, web forums, ride events and other channels.
12. Help identify and advocate for mountain bike current trends as part of the 5 year master plan public input and stake holder.

13. Provide available hand tools for use by volunteers for trail maintenance. Such tools include but not limited to: shovels, leaf rakes, iron rakes, Mattocks, McLeod's, rogue hoes, bow-saws, folding hand-saws, machete, pruning shears, loppers, wheel barrels, etc.
14. Work collaboratively with Ingham County Park staff in the development of way finding and signage design, concepts, and implementation program for Ingham County Trails.

D. LIABILITY:

1. All liability to third parties, loss or damage as a result of claims, demands, costs, or judgments arising out of activities, such as direct service delivery, to be carried out by the MMMBA in the performance of this Agreement shall be the responsibility of the MMMBA, and not the responsibility of the County, if the liability, loss, or damage is caused by, or arises out of, the actions or failure to act on the part of the MMMBA, any volunteer, subcontractor, or anyone directly or indirectly employed by the MMMBA. Further, this agreement shall not serve as a waiver of any defense that the MMMBA may have to any potential claim, including the extension of governmental immunity to the MMMBA as a government contractor or quasi-government agency.
2. All liability to third parties, loss, or damage as a result of claims, demands, costs, or judgments arising out of activities, such as the provision of policy and procedural direction, to be carried out by the County in the performance of this Agreement shall be the responsibility of the County and not the responsibility of the MMMBA if the liability, loss, or damage is caused by, or arises out of, the action or failure to act on the part of any County employee or agent, provided that nothing herein shall be construed as a waiver of any governmental immunity by the County or its employees as provided by statute or court decisions.
3. In the event that liability to third parties, loss, or damage arises as a result of activities conducted jointly by the County and the MMMBA in fulfillment of their responsibilities under this Agreement, such liability, loss, or damage shall be borne by the County and the MMMBA in relation to each party's responsibilities under these joint activities provided that nothing herein shall be construed as a waiver of any governmental immunity by the County or its employees, respectively, as provided by statute or court decisions. Further, this agreement shall not serve as a waiver of any defense that the MMMBA may have to any potential claim, including the extension of governmental immunity to the MMMBA as a government contractor or quasi-government agency.

E. INSURANCE:

1. MMMBA shall purchase and maintain insurance not less than the limits set forth below. All coverages shall be with insurance companies licensed and admitted to do business in the State of Michigan and with insurance carriers acceptable to the County and have a minimum A.M. Best Company's Insurance Reports rating of A or A- (Excellent).

2. General Liability Insurance on an “Occurrence Basis” with limits of liability not less than \$1,000,000 per occurrence and/or aggregate combined single limit.. General aggregate, products, personal and adv. injury are included in the MMMBA insurance policy. This is a standard mountain bike association insurance policy underwritten by one of the few companies who write such policies.
3. Proof of Insurance - MMMBA shall provide to the County at the time the Agreements are returned by it for execution, two (2) copies of certificates of insurance for each of the policies mentioned above.

F. **NONDISCRIMINATION.** The MMMBA, as required by law, shall not discriminate against a person to be served or an employee or applicant for employment with respect to hire, tenure, terms, conditions or privileges of employment, or a matter directly or indirectly related to employment because of race, color, religion, national origin, age, sex, gender identity, disability that is unrelated the individual’s ability to perform the duties of a particular job or position, height, weight, or marital status. The MMMBA shall adhere to all applicable Federal, State and local laws, ordinances, rules and regulations prohibiting discrimination, including, but not limited to the following:

1. The Elliott-Larsen Civil Rights Act, 1976 PA 453, as amended;
2. The Persons With Disabilities Civil Rights Act, 1976 PA 220, as amended;
3. Section 504 of the Federal Rehabilitation act of 1973, P.L. 93-112, 87 Stat 355, and regulations promulgated thereunder; and
4. The Americans with Disabilities Act of 1990, P.L. 101-336, 104 Stat 327, as amended, and regulations promulgated thereunder.

Breach of this section shall be regarded a material breach of this Agreement. In the event MMMBA is found not to be in compliance with this section, the County may terminate this Agreement effective as of the date of delivery of written notification to MMMBA.

G. **IT IS MUTUALLY UNDERSTOOD AND AGREED BY AND BETWEEN THE PARTIES THAT:**

1. **FREEDOM OF INFORMATION ACT (FOIA).** Any information furnished to the Ingham County Parks under this instrument is subject to the Freedom of Information Act (5 U.S.C. 552).
2. **MODIFICATION.** Modifications within the scope of the instrument shall be made by mutual consent of the parties, by the issuance of a written modification, signed and dated by all parties, prior to any changes being performed.
3. **PARTICIPATION IN SIMILAR ACTIVITIES.** This instrument shall be made by mutual consent of the parties, by the issuance of a written modification, signed and dated by all parties, prior to any changes being performed.
4. **TERMINATION.** Any of the parties, in writing, may terminate the instrument in whole, or in part, at any time before the date of expiration.
5. **PRINCIPAL CONTACTS.** The principle contacts for this instrument are:

Ingham County Parks Contact	MMMBA Contact
Contact: Jeff Gehl, Burchfield Park Manager	Contact: Jared Steffen, MMMBA President
Phone: 517-676-2233	Phone:

E-mail: jgehl@ingham.org	E-mail:
Ingham County Parks Administrative Contact	MMMBA Administrative Contact
Contact Tim Morgan- Director of Parks	Contact Anne Grofvert, MMMBA
Phone: 517-676-2233	Phone: (517) 881-7616
E-mail: tmorgan@ingham.org	E-Mail: speedychix@comcast.net

6. NON-FUND OBLIGATING DOCUMENT. This instrument is neither a fiscal nor a funds obligation document. Any endeavor or transfer of anything of value involving reimbursement or contribution of funds between the parties to this instrument will be handled in accordance with applicable laws, regulations, and procedures including those for Government procurement and printing. Such endeavors will be outlined in separate agreements that shall be made in writing by representatives of the parties and shall be independently authorized by appropriate statutory authority. This instrument does not provide such authority. Specifically, this instrument does not establish authority for noncompetitive award to the cooperator of any contract or other agreement. Any contract or agreement for training or other services must fully comply with all applicable requirements for competition.
7. COMMENCEMENT/EXPIRATION DATE. This instrument is executed as of the date of last signature and is effective through January 1, 2022 at which time it will expire unless extended.
8. WAIVERS. No failure or delay on the part of either of the parties to this Agreement in exercising any right, power or privilege hereunder shall operate as a waiver thereof, nor shall a single or partial exercise of any right, power or privilege preclude any other or further exercise of any other right, power or privilege.
9. AGREEMENT MODIFICATIONS. All modifications to this Agreement must be mutually agreed upon by the parties, and incorporated into written amendments to this Agreement after approval by the County's Board of Commissioners, and signed by their duly authorized representatives.
10. PURPOSE OF SECTION TITLES. The titles of the sections set forth in this Agreement are inserted for the convenience of reference only and shall be disregarded when construing or interpreting any of the provisions of this Agreement.
11. COMPLETE AGREEMENT. This Agreement contains all of the terms and conditions agreed upon by the parties hereto and no other agreements, oral or otherwise, regarding the subject matter of this Agreement or any part thereof shall have any validity or bind any of the parties hereto.
12. SEVERABILITY. If any part of this Agreement is found by a Court or Tribunal of competent jurisdiction to be invalid, unconstitutional or beyond the authority of either party to enter into or carry out, such part shall be deemed deleted and shall not affect the validity of the remainder of this Agreement which shall continue in full force and effect. If the removal of such provision would result in the illegality and/or unenforceability of this Agreement, this Agreement shall terminate as of the date in which the provision was found invalid, unconstitutional or beyond the authority of the parties.

13. CERTIFICATION OF AUTHORITY TO SIGN AGREEMENT. The people signing this Agreement on behalf of the parties hereto certify by their signatures that they are duly authorized to sign on behalf of said parties and that this Agreement has been authorized by said parties.

IN WITNESS WHEREOF, the parties hereto have executed this agreement as of the last written date below.

COUNTY:

MMMBA:

Sarah Anthony – Chairperson
Ingham County Board of Commissioners

Jared Steffen, President
Mid-Michigan Mountain Biking
Association

Date	Date:
------	-------

APPROVED AS TO FORM
FOR THE COUNTY OF INGHAM:
COHL, STOKER & TOSKEY, P.C.

Mattis D. Nordfjord

AGENDA ITEM #6C

INGHAM COUNTY PARKS & RECREATION COMMISSION

Meeting of July 24, 2017
RESOLUTION # -17

**RESOLUTION TO RECOMMEND AUTHORIZING THE CREATION OF A TRAILS & PARKS
MILLAGE PROGRAM COORDINATOR FOR THE PARKS DEPARTMENT**

WHEREAS, Board of Commissioners Resolution #16-103 authorized staff to develop a job description for a staff person who would specifically work on the trails and parks millage, contingent upon approval by the Board of Commissioners in a future resolution; and

WHEREAS, an analysis of information provided by the Parks Department resulted in the creation of a new position titled Trails & Parks Millage Program Coordinator; and

WHEREAS, Human Resources has evaluated the proposed new position, and new job description and has established the appropriate salary grade level; and

WHEREAS, the position will be a Managerial Unit (MCF) at a level 10 (\$61,615.26 - \$73,958).

THEREFORE BE IT RESOLVED, that the Ingham County Parks & Recreation Commission recommend the Board of Commissioners authorizes a new position titled Trails & Parks Millage Program Coordinator in the Managerial Unit (MCF) at a level 10 (\$61,615.26 - \$73,958).

BE IT FURTHER RESOLVED, that the Ingham County Parks & Recreation Commission recommend the Board of Commissioners authorize funding this position from the trails and parks millage.

BE IT FURTHER RESOLVED, that the Trails & Parks Millage Program Coordinator position will be posted and filled with the assistance of the Human Resources Department.

BE IT FURTHER RESOLVED, that the Controller/Administrator is authorized to make the necessary adjustments to the budget and position allocation list in accordance with this resolution.

County of Ingham

HUMAN RESOURCES DEPARTMENT

5303 S. Cedar Street, Suite 2102
Lansing, MI 48911-3895

Administration: 517. 887.4327
Employee Services: 517.887.4373
Internet: www.ingham.org

Employment: 517.887.4328
FAX Number: 517.887.4396



TO: Tim Morgan, Parks Director

FROM: Joan Clous, Human Resource Specialist

DATE: July 19, 2017

RE: Memo of Analysis for creation of a new position within the Parks Department – Trails & Parks Millage Program Coordinator

The Parks Department is in need of a new position to enhance their ability to serve residents of Ingham County.

An analysis of information provided by the Parks Department resulted in the creation of a new position titled Trails & Parks Millage Program Coordinator. It will be placed in the Managerial Unit (MCF) at a level 10 (\$61,615.26 - \$73,958).

Please use this memo as acknowledgement of Human Resources' participation. You are now ready to complete the final steps in the process: contacting Budgeting, writing a memo of explanation and preparing a resolution for Board approval.

If I can be of further assistance, please email or call me (887-4374).

INGHAM COUNTY JOB DESCRIPTION

TRAILS & PARKS MILLAGE PROGRAM COORDINATOR

General Summary: Under the general direction of the Parks Director this position is the primary contact for the Ingham County Trails and Parks Millage Program and is responsible for the coordination and monitoring of grants for non-motorized trails for the duration of each project, including blue ways, green ways and special projects, which requires highly technical oversight, management, and tracking and compliance assurance for these programs. Will communicate and interface with the Park Director, Deputy Controller, Staff and other local governments to allocate and track grant dollars appropriately and in accordance with the current millage plan. Works with communities on helping with local match from various state, federal and private grant programs. This position will analyze and evaluate data, manage funding from budgeting and programming through project implementation and financial closeout and have the ability to prepare reports, charts, maps and other graphs to display data and have background in GIS mapping and data collection.

Essential Functions:

1. With oversight from Director receives and reviews applications for Ingham County's Trails applications for all rounds of the Ingham County Trails Parks Program and ensures they are complete and correct. Provides all necessary information to the Park Commission, Parks Director and Board of Commissioners including funding recommendations.
2. Coordinates and accounts for the appropriate reimbursements and financial information from local municipalities with the Financial Services Department. Assists the Parks Director in financial reporting through the development and modification of various forms for applicants and reimbursements to the millage program. Review contracts entered in MUNIS for accuracy, calculate and approve initial payments per contract language, monitor the Trails and Parks fund for accuracy, establish necessary general ledger accounts and projects, track and keep current fund balance and fund balance projections, develop and maintain spreadsheets, review reimbursement forms from other agencies and recommend payments.
3. Initiate changes to policies and procedures to expedite the obligation and expenditure of grant program funds.
4. Provide assistance to municipalities, and non-profit public entities regarding grants, trail and blue way planning, development, funding, management issues and completing application. Work with all communities to encourage and promote millage funded projects when they are awarded, started and completed. Coordinate and assist with scheduling special dedications, press releases, and social media for promotion of millage projects.
5. Develops and maintains effective relationships with the Board of Commissioners, Parks Commission, various agencies, trail user groups, volunteers, and local organizations and media representatives for trail and blue way development. Assists Director with presentations to boards, commissions, civic groups and the general public as necessary.
6. Implements Ingham County Board of Commissioners approved Trails and Parks master plans, following standards for management and maintenance for all trails and blue ways. Provides information to Park Commissioners, Board of Commissioners, Director and consultant as directed and necessary for the millage program, as well as communication with attorney's office and Board of Commissioners office. Communicates official Board of Commissioners resolutions, plans, policies and procedures to staff and the general public.
7. Assists Director with project management for millage funded capital improvement projects, assisting with soliciting for grants both public and private for the Ingham County Parks Capital

Improvement Program and annually assisting with updating the major action program items as part of the Five-Year Ingham County Park Master Plan.

8. Prepares and maintains daily, monthly and annual reports and records of the millage as assigned.
9. Coordinates and attends stakeholder meetings and takes minutes at these and any other special millage related meetings, and coordinates temporary construction signage and permanent plaque delivery and ordering, as well as communicating with various government entities in regard to millage and financial funding items and questions related to the millage.
10. Responsible for routine monitoring of existing trails and blue ways via foot and bicycle and kayak or canoe to assess the present conditions as well as access potential critical connections that may be developed.

Other Functions:

- Performs other duties as assigned.

(An employee in this position may be called upon to do any or all of the above tasks. These examples do not include all of the tasks which the employee may be expected to perform.)

Employment Qualifications:

Education: Bachelor's Degree in Parks & Recreation Administration, Natural Resource Science, Resource Management, Resource/Land or Trails Planning, Engineering, Recreation, Environmental Studies, Tourism or a related field.

Experience: One to two years of experience managing grants and project management. Grant writing experience preferred.

Other Requirements:

- Must have certification or be able to obtain certification to perform PASER ratings.
- Must be able to load and unload and operate a bicycle, kayak and/or canoe.
- Maybe be required to lift up to 100 pounds.

(The qualifications listed above are intended to represent the minimum skills and experience levels associated with performing the duties and responsibilities contained in this job description. The qualifications should not be viewed as expressing absolute employment or promotional standards, but as general guidelines that should be considered along with other job-related selection or promotional criteria)

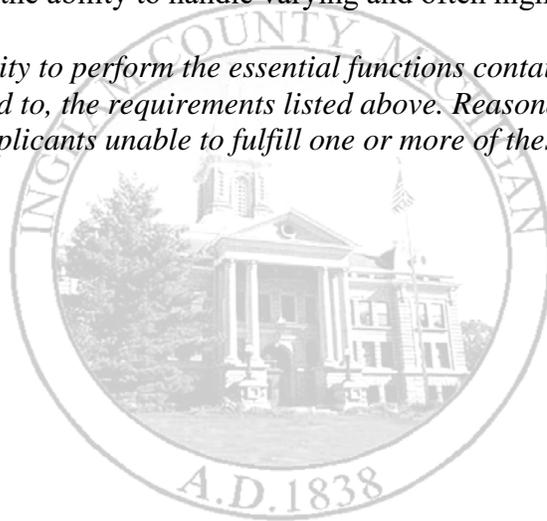
Working Conditions:

1. This position works in both an indoor and outdoor environment. While indoors, there is no planned exposure to notable lights, noises, odors, temperatures or weather conditions. While outdoors, exposure to lights, noises, odors, temperatures or weather conditions cannot be controlled and may be extreme.
2. This position operates a variety of vehicles including cars, trucks, bicycles, canoes/kayaks, etc.
3. This position is required to travel for meetings and appointments.
4. This position is provided, and required to use, Personal Protection Equipment to minimize the risks associated with the working conditions listed above.

Physical Requirements:

- This position requires the ability to sit, stand, walk, traverse, climb, balance, twist, bend, stoop/crouch, squat, kneel, crawl, lift, carry, push, pull, reach, grasp, handle, pinch, type, endure repetitive movements of the wrists, hands or fingers.
- This position’s physical requirements require regular stamina in sitting, standing, walking, traversing, climbing, twisting, bending, stooping/crouching, squatting, kneeling, crawling, lifting, carrying, pushing, pulling, reaching, grasping, handling, pinching, typing and enduring repetitive movements of the wrists, hands or fingers
- This position performs heavy work requiring the ability to exert more than 50 pounds of force in the physical requirements above.
- This position primarily requires far visual acuity to perform tasks significantly beyond arm’s reach such as making general observations about buildings, people or situations, etc.
- This position requires the ability to communicate and respond to inquiries both in person and over the phone.
- This position requires the ability to operate a PC/laptop and to enter & retrieve information from a computer.
- This position requires the ability to handle varying and often high levels of stress.

(This job requires the ability to perform the essential functions contained in this description. These include, but are not limited to, the requirements listed above. Reasonable accommodations will be made for otherwise qualified applicants unable to fulfill one or more of these requirements.)



***MCF
Pay Grade***

AGENDA ITEM #8A

Directors Report

June 21st-July 18th (June 24th Park Commission meeting)

Mission Statement:

The Ingham County Parks & Recreation Commission and Ingham County Parks Department will provide quality outdoor recreation opportunities and facilities for all segments of our population. We will strive to enhance the quality of life for park visitors and county residents through active citizen involvement, planned acquisition, preservation and professional management of park lands.

- Ongoing weekly update meetings with Nicole and Karen on various committee agendas, supporting documents and internal items. We continue to be extremely busy working on various Millage items for the next round of applications for the Trails & Parks as well as various other park related items.
- Worked on resolution for the Special Trails & Parks Committee for the trails and parks millage applications.
- Continued working with Tanya Moore of Spicer group on various millage items including review of completed projects for final reimbursements, wayfinding, trails and parks web site, millage spreadsheets and other items for the Trails and Parks BOC Special Committee.
- Visited Burchfield Park and met with Jeff to discuss Burchfield Park and facilities, also visited with Pat to discuss Lake Lansing Park South & North and facilities, planned to also meet with Brian Collins Hawk Island Park and facilities.
- Jeff Gehl and I met with Eaton Rapids and discussed cooperation on minor improvements to Bunker Landing for parking, signage and coordination. We also discussed updating the current agreement with them and us and will start working on crafting an MOU between the two agencies for the Grand River blue ways.
- Met with Tri-County Land Use Group.
- MParks "Day at the Capital" Get out and plan saw 1,500 day campers from mid-Michigan come to the capital to participate on the Capital Lawn; the Ingham County Parks demonstrated Disc golf and kids got throw a disc.
- Attended several County Controller meetings.
- Helped with Packets and agendas for Park Commission meetings and Special Committee on Trails & Parks agendas and meetings.
- Attended BOC meetings; County Services, Finance for several resolutions that were passed by the Park Commission.
- Did another promo spot for Ingham Parks on Tim Barren Radio show provided giveaways for promotion.
- Worked with Spicer Group on and attended the Wayfinding meeting for Trails & Parks with Park Commission and Stakeholders.
- Attended the June quarterly Friends meeting, Park Patron fund raiser was discussed along with the gifts to the Ingham County Parks to help support programs and facilities.
- Attended several bid openings at Purchasing Department.
- Met with Commissioners Banas and Nolan and Deputy Controller Jared Cypher to work on additional revision to the Millage Program Coordinator position job description. Also worked with Human Resources on the position description memo analysis for the creation of this new position, as well as the Budget Office for benefits.
- Conducted monthly staff meeting and managers meetings.
- Took some vacation time and visited family.
- Attended non-motorized Tri-County Meeting.
- Worked with Pat Witte, MDNR, Meridian Township and USDA on CWD and Deer management data on updating the resolution for Lake Lansing North.

- Met with George Hayhoe and Jonathan Schelke to discuss George’s vision of trail connections within and both north and south out of Mason. I was ill and was unable to attend the FLRT annual meeting Jonathan had spoken to George at this meeting as a follow-up.
- Followed up with Park Rules with County Legal Department.
- Sorted through and responded e-mails daily.
- The RFP for revenue management system was released. We plan to have an RFP back the first of August.
- Continue to take advantage of the summer weather and get on a trail in one of your Ingham County Parks!

Day at the Capital “Get outside and Play” MParks Event



AGENDA ITEM #8B

To: Tim Morgan
From: Jeff Gehl
Date: July 18, 2017

RE: June board report

- June 23 – I met with Tim Morgan, Anne from MMMBA, and Chris Wascher to discuss trail work and signage project.
- June 23 – I met with Tim Morgan and Chris Wascher to discuss the MOU with Eaton Rapids/
- June 26 – Staff meeting
- June 28 – vacation Day
- July 13 – I met with the other managers and Tim Morgan for the managers meeting.
- July 13 – I met with Director Tim Morgan to discuss the upcoming meeting with Eaton Rapids at Bunker Landing.
- July 14 – I met with the Tim Morgan and conducted a park tour of Burchfield Park.
- July 14 – I met with Tim Morgan and representatives of Eaton County to discuss the MOU and the overcrowding of boaters at Bunker landing.

From Mid - June to Mid – July we are in full summer operation. We collected \$5778.00 in canoe/kayak rentals on the July 04, weekend. Dave Strahle continues to work on our boats as several of them have needed repair do to their age and usage. We had to scrap out one of the canoes because it could not be repaired. We completed clearing all the trails including the advanced bike trail only to have another high wind storm go through in July and drop another 20 trees. This storm also caused another blockage at the bridge by the English Inn and was promptly removed by Jeff Gehl and Chris Wascher. Several dead trees around Burchfield Park were dropped and staff continued to clean up fallen limbs and debris. The Environmental day camp continues to have success and the addition of potter park zoo with their animals has been well received. The sessions are completely filled for the remainder of the season. Sand for the volleyball courts was delivered and spread. The bid specs were written up for the boat and motor and sent to the purchasing department for review and bids to be sent out. The replacement zero turn mower was bid out and purchased. Chris Wascher went with Tim Morgan for recreation day at the capital.



Prairie planting



Nature Day Camp



Kayak Rentals



Storm Damage



Blockage at English Inn Bridge

2017 July Lake Lansing Manager's Monthly Report

1. Removed 22 acres of Autumn Olive at North Park
2. Installed security cameras
3. Coordinated special events and large company picnics to use Lake Lansing
4. Continuous fee/revenue collection
5. Continued to prep and serve reservations, YMCA/day camp groups, Band Shell concerts, special events, and fishing tournaments at all areas.
6. Hosted Landing Blitz for invasive awareness at the Boat Launch



Landing Blitz at the Boat Launch



Goose Round Up.... 58 geese

July 2017 Parks Commission Meeting Monthly Report

Hawk Island County Park

- Late June/Early July were busy attendance wise within the park; majority of time was spent with normal day to day upkeep and customer service.
- Boardwalk Repairs
- Installed 2 handicap accessible benches along path
- Installed new flowerbed at entrance to Dog Park
- Met with numerous special event planners regarding 5ks and other events within Hawk Island.
- Met with alternative energy company to discuss possibilities at Hawk Island for solar energy and wood heat.



AGENDA ITEM #8C

June - Parks Office Monthly Report

Communications, Training & Research

Schedules and agendas for numerous meetings were coordinated with staff and the park commission. Motions and resolutions were prepared.

Customer Service

We received 1,284 phone calls in the month of June. 142 park visitors made a picnic shelter reservation in June. Staff responds to multiple general inquiries regarding passports each month and in addition we accepted 32 U.S. passport applications in June. We have received 68 requests for 2017 special events in the parks office. Office staff assists the event coordinators with the event application, park reservations and coordinates the application process with park managers for approval.

Burchfield Park Day Camp

Registration for day camp at Burchfield Park continued. The remaining sessions are completely filled and overall a total of 158 campers have signed up.



Staffing

We welcomed Eric as our new office intern. He has been training on phones, how to use our reservation system, and other office duties. Eric and Cindy also toured the parks. Next month, Eric will start training to become a passport agent.

Accounting/Budget/Payroll

As requested by the controller's office we have been busy entering contracts into the new Munis contract module. We have added 27 contracts to Munis in the last month. The controller recommended capital improvement list for 2018 was received.

Marketing

Camp marketing for summer 2017 – plus more program variety and the ability for campers to attend multiple sessions is working! We have registered 52 more campers than in 2016.



Our big push right now is to obtain ownership/control of the maps and information that pop up online when customers Google one of our park names. We are making good progress on this project.



AGENDA ITEM #8D

Ingham County Parks Budget Status
6/30/2017

	ORIGINAL 2017 BUDGET	ANNUAL AMENDED BUDGET	2017 ACTUAL	2017 VARIANCE + / -	2017 Percent Used	PRIOR YEAR 2016	VARIANCE + / - 17/16
Park Administration							
Revenue							
Passport Revenue	16,000	20,000	14,110	(5,890)	70.6%	12,854	1,256
Misc Revenue	2,000	1,000	816	(184)	81.6%	356	460
Carry Over Surplus Used	0	0		0	0.0%		0
Rev trf in F101	671,598	628,398	335,799	(292,599)	53.4%	574,041	(238,242)
Rev trf in F228	50,750	50,750	25,375	(25,375)	50.0%	12,500	12,875
Rev trf in (Cap Imp) F101	0	1,000	500	(500)	50.0%	4,000	(3,500)
Total Revenue	740,348	701,148	376,600	(324,548)	53.7%	603,751	(227,151)
Expenditures							
Personnel Services	408,650	372,850	184,019	188,831	49.4%	155,011	29,008
Controllable Expenses	201,446	195,046	72,710	122,336	37.3%	51,809	20,901
Non-Controllable Expenses	130,252	130,252	72,156	58,096	55.4%	58,998	13,158
Total Expenses	740,348	698,148	328,885	369,263	47.1%	265,818	63,067
Net Cost Park Administration	0	3,000	47,715	(44,715)		337,933	(290,218)
Burchfield Park							
Revenue							
Shelter Fees	15,800	15,800	11,881	(3,919)	75.2%	10,612	1,269
Disc Golf Fees	22,000	22,000	15,020	(6,980)	68.3%	14,393	627
Pedal Boat Rental	5,000	2,000	410	(1,590)	20.5%	589	(179)
Canoe/Kayak Rental	34,500	42,500	11,954	(30,546)	28.1%	16,972	(5,018)
Ski Rental	7,000	7,000	646	(6,354)	9.2%	3,241	(2,595)
Food Concessions	2,500	2,500	1,075	(1,425)	43.0%	1,454	(379)
Parking Fees	44,665	44,665	28,684	(15,981)	64.2%	24,581	4,103
Snow Tube Rental	4,000	4,000	244	(3,756)	6.1%	1,602	(1,358)
Day Camp	15,000	10,000	12,711	2,711	127.1%	6,202	6,509
Rev trf in F101	311,427	319,172	155,713	(163,459)	48.8%	77,337	78,376
Total Revenue	461,892	469,637	238,338	(231,299)	50.7%	156,983	81,355
Expenditures							
Personnel Services	393,126	399,204	160,036	239,168	40.1%	245,231	(85,195)
Controllable Expenses	58,766	60,433	27,837	32,596	46.1%	32,632	(4,795)
Non-Controllable Expenses	10,000	10,000	4,688	5,312	46.9%	5,727	(1,039)
Total Expenses	461,892	469,637	192,561	277,076	41.0%	283,590	(91,029)
Net Cost Burchfield Park	0	0	45,777	(45,777)		(126,607)	172,384
Lake Lansing Parks							
Revenue							
Shelter Fees	20,550	20,550	18,250	(2,300)	88.8%	17,005	1,245
Boat Rental	7,500	7,500	3,365	(4,135)	44.9%	3,335	30
Boat Launch Fees	17,000	17,000	8,130	(8,870)	47.8%	11,295	(3,165)
Food Concessions	13,650	13,650	8,858	(4,792)	64.9%	7,719	1,139
LL House	9,600	9,600	5,600	(4,000)	58.3%	4,800	800
Parking Fees	84,335	84,335	41,005	(43,330)	48.6%	43,383	(2,378)
Inflateable Rental	1,000	1,000	690	(310)	69.0%	225	465
Rev trf in F101	305,747	328,690	152,873	(175,817)	46.5%	69,614	83,259
Total Revenue	459,382	482,325	238,771	(243,554)	49.5%	157,376	81,395
Expenditures							
Personnel Services	374,047	392,323	204,833	187,490	52.2%	141,798	63,035
Controllable Expenses	72,335	74,002	34,612	39,390	46.8%	28,976	5,636
Non-Controllable Expenses	13,000	16,000	5,273	10,727	33.0%	7,093	(1,820)
Total Expenses	459,382	482,325	244,718	237,607	50.7%	177,867	66,851
Net Cost Lake Lansing Parks	0	0	(5,947)	5,947		(20,491)	14,544
Hawk Island Park							
Revenue							
Shelter Fees	30,150	30,150	24,496	(5,654)	81.2%	21,462	3,034
Boat Rental Fees	13,000	13,000	4,998	(8,002)	38.4%	3,522	1,476
Food Concessions	29,000	29,000	15,084	(13,916)	52.0%	13,846	1,238
Parking Fees	176,000	173,000	107,691	(65,309)	62.2%	96,872	10,819
Snow Hill Tubing Fees	50,000	50,000	31,529	(18,471)	63.1%	40,841	(9,312)
Dog Park Revenue	10,000	10,000	6,971	(3,029)	69.7%	5,829	1,142
Rev trf in F101	308,607	321,119	154,304	(166,815)	48.1%	74,578	79,726
Total Revenue	616,757	626,269	345,073	(281,196)	55.1%	256,950	88,123
Expenditures							
Personnel Services	470,492	484,338	234,672	249,666	48.5%	184,441	50,231
Controllable Expenses	97,471	99,137	42,319	56,818	42.7%	27,068	15,251
Non-Controllable Expenses	48,794	45,794	21,565	24,229	47.1%	11,501	10,064
Total Expenses	616,757	629,269	298,556	330,713	47.4%	223,010	75,546
Net Cost Hawk Island Park	0	(3,000)	46,517	(49,517)		33,940	12,577
Grand Total Revenue	2,278,379	2,279,379	1,198,782		52.6%	1,175,060	23,722
Grand Total Expenses	2,278,379	2,279,379	1,064,720		46.7%	950,285	114,435
Net Change in Fund Balance	0	0	134,062			224,775	(90,713)
Fund Balance, Beginning of Fiscal Year 2017 ¹			414,441 ²				
Projected Fund Balance End of Year			548,503				

¹ The 208 fund is closed for 2016. \$92,148 was added to the 208 fund balance.

² \$15,000 of the fund balance is designated for CIP projects.

CAPITAL IMPROVEMENT & PROJECTS/EQUIPMENT

Status Report as of June 30, 2017

Item	Original Budget	2017 Adjusted Budget	Encumbrance	2017 Actual Cost	Balance	Status *	Staff Notes
245 FUND							
Disc Golf Store Inventory- BUR (2016) 245-75299-726010	3,598				3,598		Consider other Use Carry to 2017
Cross Country Ski Equip.- BUR (2016) 245-75299-726010	4,000				4,000		Getting Quotes Carry to 2017
Shoreline Stabilization- LL Boat Launch 245-75299-743000 (2016)	13,197			4,029	9,168	In Progress	Carry to 2017
Reforestation - LLS 245-75299-976000 (2015)	1,575				1,575	Complete	Carry Forward 2016
Security Cameras & Alarms- All Parks 245-75299-976000 (2016)	15,000	12,500		4,379	8,121		Carry to 2017
Path Repair-HI(2015) Parking Lot(2017) 245-75299-974000	10,000	53,485		3,048	50,437	In Progress	Transferred millage approved funds to the 245 fund.
Master Plan (2015) 208-75200-967000-86000	1,403			1,403	0	Complete	
<i>Total</i>	48,773	65,985	0	12,859	76,899		
228 Trails & Parks Millage Fund							
McNamara Accessible Launch 228-75999-976000 (2016)	151,200				151,200	Grant Awarded	\$45,360 Match or \$75,600 Match MNRTF or LWCF Grant Carry to 2017
Overlook Shelter Roof/Restrooms 245-75299-976000 (2016)	159,500				159,500	Passport Grant Awarded	\$20K 2016 CIP, \$94,500 Millage, \$45K Passport / Carry to 2017
Magic Carpet - Hawk 228-75999-978000 (2016)	16,860			4,089	12,771	In Progress	Carry to 2017
Service Boat Trailer & Motor - Burch 228-75999-978000-7P01	16,000				16,000		Requires PO
Pump House Building - HI 228-75999-976000-7P02	25,000		6,387		18,613		PO Issued
Parking Lot Repairs - HI 228-75999-974000-7P03	50,000	-40,985		9,015	0		Funds transferred to HI Path Repair Project Line
Stone Chip Road - Burch 228-75999-974000-7P05 (2017)	10,000				10,000		
Restroom Refurbishment - HI 228-75999-976000-7P07	15,000			7,974	7,026		
Grills & Tables - All Parks 228-75999-734000-7P08	10,000			9,573	427	Complete	
Beach & Volleyball Sand - All Parks 228-75999-974000-7P09	6,500		6,105		395	Complete	
Trail Signage/Wayfinding - Burch 228-75999-974000-7P10	10,000				10,000		Requires PO
<i>Total</i>	470,060	-40,985	12,492	30,651	385,932		

CAPITAL IMPROVEMENT & PROJECTS/EQUIPMENT

Status Report as of June 30, 2017

Item	Original Budget	2017 Adjusted Budget	Encumbrance	2017 Actual Cost	Balance	Status *	Staff Notes
<i>Combined List of Roof Projects - Requires RFP & Contract</i>							
Band Shell Roof - LL 228-75999-976000 (2016) (millage)	8,000	(8,000)			0	Canceled	RFP costs exceeded budget. Requesting again in 2018 budget.
Rental House Roof - LL 228-75999-976000 (2016) (millage)	14,500	(14,500)			0	Canceled	Status to be Determined
Roof White Restroom - LLN (2015) 245-75299-931000	1,836	(1,836)			0	Complete	
Roof Picnic Area Restroom - LLS (2015) 245-75500-931000	8,000	(8,000)			0	Complete	
Beach Roof House- HI (2016) 245-75299-976000	20,000	15,255			35,255	Need BOC Approval	
Maintenance Building Roof- HI 245-75299-976000 (2016)	20,000	(20,000)				Canceled	RFP costs exceeded budget. Requesting again in 2018 budget.
228-75999-976000-7P04 (2017) (millage)	20,000	37,429			57,429	Need BOC Approval	
<i>Total</i>	92,336	348	0	0	92,684		

ADA Road Funds Burchfield & Lake Lansing - Passport Grant Application - Due 4/1/17

Gravel/Road Maintenance - LLS (2015) 208-75200-974000	7,000			0	7,000	On Hold	Carry Forward 2016 Carry forward to 2017
Gravel/Road Maintenance - BUR (2015) 208-75200-974000	7,000				7,000	On Hold	Carry Forward 2016 Carry forward to 2017
Road Millings - LLN & Bur 228-75299-974000 (2016) (millage)	20,000				20,000	On Hold	Carry to 2017
228-75999-974000-7P06 (2017) (millage)	30,000				30,000	On Hold	<u>In the 2017 Budget</u>
	64,000				64,000		

2017 Capital Improvement

Golf Carts 664-80000-978000	13,500			13,300	200	Complete	
Dump Truck - LL 664-80000-978010-C7350	40,000				40,000		2017 order date passed. Order January 2018.
Blower - LL & Burch 664-75299-978000	8,000				8,000		Requires PO
Boat Wash Station - LL 245-75299-974000	5,000				5,000		
Pedal Boats - All Parks 245-75299-735100	8,000		7,704		296	Complete	
	74,500				53,496		

TRAILS AND PARKS MILLAGE

Multiple Year Summary

2015-2017

6/30/2017

REVENUE

FY 2015 actual	\$3,353,305
FY 2016 actual	\$3,488,275
FY 2017 YTD	\$3,438,671
TOTAL TO DATE:	\$10,280,251

2015-17 EXPENSES & PREPAID EXPENSES

2015-16 Expenses Consolidated	\$172,823
Property Tax Refunds	\$4
Parks Projects/Equipment (BOC Res 16-198)	\$312,484
Parks Equipment - encumbered (BOC Res 16-198)	\$3,099
Asphalt Round (BOC Res 16-257)	\$197,216
Signage (BOC Res 16-258)	\$4,996
Bridge Round (BOC Res 16-328)	\$1,178,954
Parks Police & Supplies (BOC Res 16-444) 2017	\$23,375
Parks Capital Improvement (BOC Res 16-444) 2017	\$73,934
Spicer/Millage Consultant (BOC Res 16-524) 2017	\$27,394
2017 Millage Funds (BOC Res 17-109)	\$411,746
TOTAL EXPENSES:	\$2,406,025

BALANCE AFTER EXPENSES & PREPAID EXPENSES **\$7,874,226**

BOARD OF COMMISSIONER RESOLUTIONS - Balances

Resolution 16-198 Parks CIP FY 2016 (balance)	\$228,863
Resolution 16-257 Asphalt (balance)	\$591,647
Resolution 16-258 Signage (balance)	\$5,004
Resolution 16-328 Bridges (balance)	\$3,557,918
Resolution 16-444 Parks Police & Supplies - 2017 (balance)	\$27,375
Resolution 16-444 Parks 2017 CIP (balance)	\$118,566
Resolution 16-524 Spicer/Millage Consultant-2017 (balance)	\$67,812
Resolution 16-524 Spicer/Millage Consultant-2018 (balance)	\$97,641
Resolution 17-106 Parks Passport Grant Match - ADA Burchfield	\$175,700
Resolution 17-107 Parks MNRTF Grant Match - ADA Lake Lan North	\$80,400
2017 Millage Funds (BOC Res 17-109)	\$2,581,059

BOARD OF COMMISSIONER FUNDING TOTAL (balance) **\$7,531,986**

BALANCE AFTER EXPENSES and DESIGNATED FUNDS **\$342,241**

AGENDA ITEM #9

From: John Hesse [<mailto:hessej@msu.edu>]

Sent: Friday, July 14, 2017 4:01 PM

To: Mogyoros, Eric <EMogyoros@ingham.org>; Decker, Sarah <SDecker@ingham.org>; Wilcox, Cynthia <CWilcox@ingham.org>; Fraser, Karen <KFraser@ingham.org>; Wallace, Nicole <NWallace@ingham.org>; Morgan, Timothy <TMorgan@ingham.org>; Emens, Coe <CEmens@ingham.org>; Collins, Brian <BCollins@ingham.org>; Witte, Patrick <PWitte@ingham.org>; Gehl, Jeff <JGehl@ingham.org>; Buckley, Timothy <TBuckley@ingham.org>

Subject: Invitation, Thank You Luncheon, August 2nd

Dear Ingham County Parks Staff,

The Bill Earl Program was very successful again, with a lot of the credit to all the work you did collectively and individually. You each played a significant role in making this year great for the kids. Thank you so very much. To thank you in a more personal way, I want to invite all of you to a pizza luncheon at your office in Mason on August 2nd at noon.

In addition to plenty of pizza and drinks, my wife will likely cook up something sweet for us all. I've pulled out a wonderful set of my favorite pictures from this year's workshops again and will project those for you on the big screen. Seeing the kids' happy faces reminds us why this program is so important. Please take the time to read some of the attached feedback we received from parents and grandparents this year. It is easy to tell that we're touching many young people's lives through this program. We had 211 kids participate in the May workshops and 62 at the follow-up outings. Of course parents and other family members attended as well.

The program didn't just happen at the three Saturday morning workshops in May or the three follow-up events in June. It began way back on January 18th when Nicole Wallace met with representatives from the Big Lesson Program, the Fenner Nature Center and me and agreed (with Tim Morgan's approval) to a much larger role for Ingham County Parks in 2017. And then Tim Morgan and Nicole participated in the January and February Planning Committee meetings which laid the rest of the groundwork for the program. Among the added responsibilities of the Parks office this year was the handling of the pre-registration confirmation process for the first time, not an easy task (although Nicole seems to make everything go smoothly)! This included responding to a lot of questions from families, timely reminders to reduce the number of "no-shows", and sending invitations for the follow-up events in June, and much more. In the meantime, office staff did their usual amazing preparation of name tags for youth and volunteers, copying of thousands of pages of documents, preparation of mailing packets for kids prior to each event, and keeping Tim and I in the loop on everything. And, I'm simplifying things for sake of brevity.

Hawk Island Staff did their amazing work again as usual, safely carrying over supplies from 2016, preparing the shop for the big work day on April 26^h with Mason County High School seniors where we efficiently loaded all of the tackle boxes and put rods/reels together. On days of the workshops in May, all of the tables at the Bath House and Cabana were in the proper places and wiped down, supplies moved from the shop to the Bath House and Boat Rental facilities, and the grounds in perfect condition! Coe even did his best to adjust the level of the lake so kids could access the fishing docks and walkways. Staff were always on-site super early to expedite set-up before the kids arrived. Wow, what a smooth operation. This didn't just happen. Coe and Brian met on April 24th with Tim Morgan (along with retired Director Willis Bennett) and myself to walk through everything ahead of time.

Then some of you even gave of your time as volunteers during one or more of the workshops. Thank you, Tim Morgan and Tim Buckley!

This year to expedite a more efficient and thorough set-up process for future workshops, Tim Morgan photographed the placement of everything once it was all in place to supplement the check-list that I had prepared. Copies of his pictures are on-file along with the check-list. A great idea Tim!

Although I didn't get to attend all of the events this year due to health reasons, I understand that the Lake Lansing Park preparations were all in place beautifully as well for the June 13th follow-up outing. Much Thanks Pat and his staff!

The Friends of Ingham County Parks once again donated \$350 to pay for printing of the wonderful photos each week and Karen Fraser helped coordinate handling of donations to the program that came directly into the Parks office. Thanks very much to the Friends organization and to Karen!

I know there are so many many things that the Parks program does beyond what I've mentioned that are critical to making this youth fishing program a success. I thank all of you for what you do.

I hope to see most of you for lunch on August 2nd!

John Hesse
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Bill Earl Feedback Comments, 2017

Feedback, and How would you change the program?

My son and I had a wonderful experience. Watching his excitement when he caught his first fish, and then caught two more was great. All the volunteers were very friendly, helpful and patient. Getting a pole and tackle box was a big bonus. I can't think of any way to improve this program.

This was our fifth year participating and as always it was a great experience for my daughters. Everyone is so friendly and helpful and they make it fun and educational.

It's a good time! I've brought 8-10 year olds to it over 2 years and it is good. The circle hooks, and bobber stops are kind of dumb. Give them a spring bobber and normal Aberdeen or bait holder hook.

This was our child's second year participating. The volunteers were very helpful as always and their expertise was much appreciated. The event is well organized and a lot of fun, relaxing but fun atmosphere.

Had a great time, just wish there were more fish in the lake biting that day although it was chilly.

This was my son's first experience and it was very enjoyable. We were not expecting to receive a fishing rod or tackle box and he was so excited! He's 8 years old!

It was great! Keep it up!

This was a great experience, a well-organized event that was an enjoyable afternoon for our whole family. We are very thankful for the time and effort that all of the volunteers put into this. We will definitely be back & I will encourage our family and friends with children to come too! Thank you all so much for a great day!

What an amazing day! We learned so much and had such a good time. We love our new tackle boxes and fishing rods and are planning to go fishing again soon.

This was an amazing event! I have not stopped talking about it. We went fishing the next day and have been back out twice since. The volunteers were very helpful and the program had great flow, kids were engaged every moment.

This was fantastic. So well done, I cannot think of anything that would improve it. Thanks so much to all who made this happen.

This was an absolutely wonderful experience and I am thrilled that my boys were able to participate. The instruction was wonderful, the pole and tackle were amazing and the opportunity to put it all to use was fantastic! My boys were full of smiles and excited. We actually were able to attend because of cancellations (we were on the waitlist) so we are extremely grateful for the opportunity :)

The kids had fun and that's important.

This was a very well organized event. My daughter had a blast and I think this will be the pathway to her fishing as a hobby. Thank you to all of the volunteers that donated their time and provided tips and tricks to help her learn the fishing sport. Receiving the pictures in the mail was a nice touch as well.

My daughter had an absolute blast at the event. She appreciated how it was set up to get her tackle box and photos at the beginning. I liked that there were so many volunteers to help out with all the activities, and the fishing itself as it had been a long time since I was fishing.

My grandsons and I love your event. I started out with just the oldest about 6 years ago and have added his two brothers as they became old enough. We all enjoyed the event every year.

This was a very well organized, educational, and fun event. The volunteers were great--patient and informative. My twins boys both commented more than once how much fun it was. We look forward to the June events. So many photos taken! Thanks.

This was a wonderful event. It was well organized and planned. My kids (ages 9 & 11) learned more about fishing and enjoyed the activities prior to fishing. I think it gave them more confidence in their ability to fish.

We had a great experience. My son loved having one on one time with me.

My son (12 years old) had an amazing time. And it was really helpful for my husband as well. In the past fishing has been a frustrating experience because we didn't know how to help him and he ended up with tangled lines. Now, he's more confident to fish on his own and my husband isn't as afraid to help him. The fishing rod, tackle box, water and snacks were an amazing added bonus. So generous! The volunteers were really nice -what a big group to help out- amazing! A big thank you to everyone involved!

The kids are very happy

This was an amazing event. It was well organized and staffed with well-informed volunteers. It definitely taught us newbies enough to be able to go out fishing on our own.

Look forward to this event for three years now - exciting event.

We had one repeat child and a new fisher at the event. Both boys had a lot of fun and look forward to more fishing with their grandfathers mainly.

This was my first year taking my nephew to the event and I was impressed with the engagement that the volunteers had with the children and the educational aspects that were available. I am grateful to for this event and the amount of encouragement the volunteers provided for my nephew since this was his first fishing experience. The volunteers really made this event special. I hope you continue to have a successful event in the future since this is such a great program for the Lansing area.

We absolutely loved this event. I cannot wait to register my son when he is older. Lily cannot wait for the follow up event. She learned so much and could not wait to share everything she learned with her little brother.

I have fished off and on most of my life. After being married, we have a blended family of 8 in our home. I always wanted to teach them, but didn't have the funds for it, or the patience to be honest. I was soooo thankful for your program and the AWESOME volunteers who helped teach 4 of my children!

Volunteers were very helpful, especially once we got out on the lake.

We learned a lot and we are grateful for each workstation you had set up for us to learn. The interesting fact that I took away from the event was that an MSU professor was able to use a pheromone to track and get rid of Sea Lamprey in the Michigan lakes.

It was wonderful. I will promote this program to others.

It was a very fun day spent with my son and my father. Three generations together and my son's first fishing trip. Thank you.

We had a wonderful experience. I was impressed with how smoothly it ran, and the really nice poles and tackle boxes my kids received. It was a perfect day.

Absolutely loved it!

Previously, my boys fished for half an hour then gave up and spent 2 days catching seaweed. They will now be fisherman with knowledge of what to do :)

We learned so much! We were complete novices. The kids and I had never fished before. Never even touched a fishing rod. After the program, the kids begged me to take them fishing again and we've gone twice already.

My 12 year old grandson received some instruction on bass fishing. It was interesting and he is going to teach me now.

What did you learn?

I/we learned how to properly tie a hook on to a line. That was very nice and helpful!

My 9 year old learned to tie a hook. I learned my son had to take a 12lb carp home to mommy. I learned Filipino mommy cleans carp, but didn't like the meat. Or the 3lb of eggs.

Specific instructions on using different types of bait and their functions.

Learned about invasive fish species

Using different lures

That this class was funded by donors.

How to tie a hook properly.

Putting the hook on the line and information about limits on fish

How to tie a proper knot

Some of the rules/regulations regarding fishing

The different kinds of lures that can be used, and why.

Cinch knot, about the eels, fishing seasons, and fish size requirements

I did not know how to properly tie a hook on a line.

My son overcame his fear of baiting a hook

My son learned with more confidence all parts -how to tie the book and bait and cast.

How to tie the knot for a hook

Ethics about fishing

The size, number of fish and dates for which you are allowed to keep caught fish. We never do keep them but it was interesting to hear about.

Did not know how to tie a proper knot, or underhand cast correctly.

That my kids really enjoyed fishing.

How to hold your fishing pole when putting a worm on the hook.

The bug display was very interesting for me and my son.

I learned more about fishing rules, and how to tie a fisherman's knot.

From: John Hesse [<mailto:hessej@msu.edu>]

Sent: Saturday, July 8, 2017 7:59 PM

To: hessej@msu.edu

Cc: Wallace, Nicole <NWallace@ingham.org>; Winterstein, Scott <winterst@anr.msu.edu>; Reasoner, Sharon <reasoner@anr.msu.edu>

Subject: Bill Earl Program, 2017, Summary Report

Dear Volunteers,

Now that the seventh annual Dr. Bill Earl Youth Fishing Program has been completed, I want to take this opportunity to thank each of you again for giving of your time, skills, and enthusiasm in making this year so perfect for the kids. You were all INCREDIBLE!!

By final count, a total of 211 youth participated in the 2017 program. This was almost identical to the number of kids served last year, which was a new record, and we have a long waiting list for 2018. A brief summary of this year's program is attached, including some photos and feedback from parents. I think you'll enjoy seeing these. Your commitment to the kids made everything go smoothly.

We are proud to have worked in partnership with the MSU Department of Fisheries and Wildlife, MSU Project F.I.S.H., Bob Perrin Trout Unlimited Chapter, the Red Cedar Fly Fishers, MDNR Fisheries and Law Divisions, Ingham County Parks, Friends of Ingham County Parks, Clinton County Parks and Green Space, Retired and Senior Volunteer Program, Fenner Nature Center, BIG Lesson Programs, and the MSU Federal Credit Union.

On behalf of Fishin' Michigan, the organizing committee, and all of the partnering organizations who collaborated to develop the program, thank you for serving as a volunteer. I hope you will consider helping the youth again in 2018.

With Warm Regards,

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Dr. Bill Earl Youth Program Summary, 2017

Seems like we always have at least one cold Saturday workshop in May each year and 2017 was no exception. Nevertheless, we still had a total of 211 kids participate, which is near the record number we had in 2016. Holding all of the workshops at Hawk Island, our most popular venue in previous years continues to work well for us. And, the kids caught lots of fish and had a great time! Additionally many families discovered a park to which they'll return.

Our follow-up outings on Tuesday evenings in June, this year at Meridian Township Historic Village Pond, Lake Lansing Park, and Motz Park, all worked out well also. This year, **62** kids (along with their parents and sometimes grandparents and siblings too!) returned for these outings. This was by far our largest number of kids coming to the June follow-up outings. It was great seeing how the kids had improved their skills and their level of excitement for the sport. Kids and parents alike enjoyed learning to fillet fish they caught and knowing how good fresh-caught fish taste.

What makes this youth fishing program so special is the large number of trained and enthusiastic volunteers, this year averaging an amazing **47** volunteers for each workshop in May and **14** for the smaller groups in June, that's a volunteer for every 1.6 participating youth!

Pictures like these below offer just a glimpse of the kids enjoying their experience. These memories and the skills they learned will last for their lifetimes.



A survey of families who participated this year has been conducted. The dominant theme of the

feedback from parents/grandparents/guardians was the program's overall organization and the caring help their children received from the volunteers. Some of the many comments I've received include:

"My son and I had a wonderful experience. Watching his excitement when he caught his first fish, and then caught two more was great. All the volunteers were very friendly, helpful and patient."

Getting a pole and tackle box was a big bonus. I can't think of any way to improve this program."

"This was our child's second year participating. The volunteers were very helpful as always and their expertise was much appreciated. The event is well organized and a lot of fun, relaxing but fun atmosphere."

"My daughter had a blast and I think this will be the pathway to her fishing as a hobby. Thank you to all of the volunteers that donated their time and provided tips and tricks to help her learn the fishing sport. Receiving the pictures in the mail was a nice touch as well."

"This was a great experience, a well-organized event that was an enjoyable afternoon for our whole family. We are very thankful for the time and effort that all of the volunteers put into this. We will definitely be back & I will encourage our family and friends with children to come too! Thank you all so much for a great day!"

"An amazing event! I have not stopped talking about it. We went fishing the next day and have been back out twice since. The volunteers were very helpful and the program had great flow, kids were engaged every moment."

"We absolutely loved this event. I cannot wait to register my son when he is older. Lily learned so much and wanted to share everything she learned with her little brother. She can't wait for the follow up outings."

Unfortunately there isn't space for photos of all volunteers in action but, the following pictures illustrate the commitment that is so obvious from our volunteers:



Another successful year!! Thank you Volunteers!!