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TO: Mayor and Council

FROM: Steven D. Powers, City Administrator

CC: Sumedh Bahl, Community Services Area Administrator

DATE: August 14, 2014

SUBJECT: Deer Management Options

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Attached please find the status report on deer management options requested by City Council Resolution No. R-14-144.

To develop a community-endorsed deer management plan, public engagement is recommended.

Proceeding with developing a community-endorsed deer management plan would cause the delay of other initiatives, specifically updating City Code Chapter 105 (Housing Code). To minimize delaying other projects, contractual facilitation and project support is recommended.

If a community-endorsed deer management plan is to proceed, City Council approval and appropriation of \$20,000 for plan development is requested.

A resolution to implement the recommendation is also attached.

## REPORT TO CITY COUNCIL REGARDING DEER MANAGEMENT

City Council directed the City Administrator to report on the status of a partnership with Washtenaw County Parks and Recreation, the University of Michigan, the Humane Society of Huron Valley and other interested parties to develop information and strategies needed for deer management. A copy of Council Resolution R-14-144 is included as Attachment 1.

### Background

Residents report deer damaging landscaping, causing vehicle accidents, and spreading diseases. Most residential concerns with deer have come from Arbor Hills and Green Road/Glazier Way areas of the city.

Deer Population: In 2013 Washtenaw County in collaboration with Livingston County performed an aerial survey. The survey did not include the City of Ann Arbor. The area closest to the City of Ann Arbor was in the vicinity of Plymouth Road/Dixboro Road. Attachment 2 has the table summarizing the results of the study.

Deer Vehicle Crashes: Number of deer vehicle collisions in Ann Arbor reported to various law enforcement agencies are in the following table. For locations of these collisions see Attachment 3. For 2014, locations are shown only for incidents reported to the City of Ann Arbor Police as data from other law enforcement agencies is not available.

	2011	2012	2013	2014
City of Ann Arbor Police*	23 (9)	21 (12)	34 (12)	(14)
MTCF** (All law enforcement agencies)	42	45	50	Data not available for 2014

\*Deer/vehicle collision reported to City of Ann Arbor Police only. Numbers in parenthesis are reported collisions from January through July of each year.

\*\* All Deer/Vehicle collision reported in City of Ann Arbor. This includes reports received by the State Police, Washtenaw County Sheriff, City of Ann Arbor Police and University of Michigan Police.

Health concern: Deer carry Lyme disease. Washtenaw County Public Health Department does not have a reported case of Lyme disease in 2014. The Michigan Department of Health is tracking Lyme disease. Attachment 4 is a Michigan Community Health Department map showing counties with known and potential risk of Lyme disease. Washtenaw County is not identified, at this time, as a county with potential risk of Lyme disease.

City Parks: City parks, including City golf courses, have not had vegetation damage by deer.

City Costs: Cost to City of disposing of deer carcasses in fiscal year 2014 was \$5,850.00.

## **Deer Management**

Per Public Act 451 of 1994, the legal authority for the management of all wildlife species and populations in Michigan resides with the Michigan Department of Natural Resources (MDNR). MDNR approval is needed prior to implementing a deer management method in Michigan. Both lethal and non-lethal methods are available for deer management. Some methods used or being considered in other states are not approved by MDNR. Various methods for deer management are summarized in Attachment 5.

## **Other Michigan Cities/Organizations' Management Practices**

To help frame potential options for the City of Ann Arbor and the partners specified in City Council's resolution, other Michigan local governments were surveyed.

City of East Lansing bans feeding deer. The city does not use other method to control the deer population.

City of Jackson and Summit Township contract with a wildlife management company to cull the deer population. They have been using this method for almost nine years. The cull is done through a rifle hunt and lasts for nine weeks beginning in the middle of January. City of Jackson have a deer population density goal of 15 deer per square mile. During the first four years of the program 80 deer each year were culled. For the past five years 50-60 deer each year have been culled. The meat is donated to local agencies. The current cost is about \$12,000. Additionally, about 150 hours of staff time per year is allocated to the deer management program.

Meridian Township: Meridian Township allowed hunting in 2011 and is continuing the program in 2014. Meridian Township's program is archery; no firearms are allowed. The township issues permits to individual hunters during the MDNR's archery season. The township works with Michigan Sportsmen against Hunger for hunters to donate the venison to local food agencies. The township pays for MDNR permits. Meridian Township has not defined a deer population density goal. In 2011, 2012 and 2013, Meridian Township bought 50 permits, 100 permits and 200 permits from MDNR. They are planning to buy 200 permits in 2014 also. The current cost of managing the program is \$16,700 which includes about 600 hours of staff time, securing permits, holding archery workshops, producing maps, etc.

Oakland County: Oakland County Parks has conducted deer hunts since 1990. The public may bow hunt during regular hunting season. Oakland County Parks establishes safety zones of 450 ft from any occupied structure and define shooting lanes. In some parks they allow muzzle loaders and shot guns and close the parks completely to the public.

## **Partnerships**

Washtenaw County Parks and Recreation is performing a study to understand impacts of deer population in County parks. They anticipate this information will be available by the end of this year. The information will be provided to the City when it is available.

The University of Michigan has expressed its interest in better management of the local deer herd impacting campus properties and indicated that its extent of participation in implementation will be subject to not only methodology chosen, but also its own internal review, comment and decision-making processes.

Humane Society of Huron Valley can make valuable contributions and should be engaged in the public process.

While partnerships with regional public land owners and the Humane Society of Huron Valley will be essential to any deer management plan, the critical entity is the MDNR. City and Washtenaw County Parks and Recreation staff met with MDNR to understand MDNR requirements and support. MDNR will assist the City by providing information, attending public meetings, and advising on a contracted or public hunt. The City will have to decide about the method of deer management within MDNR's regulatory limits.

## **Deer Management Plan**

A community-endorsed plan would define specific objectives and measures of success for deer management. Examples of objectives are to reduce damage to private property, protect public property, and reduce vehicle/deer collisions. Specificity would help guide how to accomplish the public policy goal of deer management. The plan would delineate the deer management area or areas and provide greater detail on the environmental damage caused by deer. The plan would recommend management methods and outline public safety considerations and requirements if lethal methods were recommended.

MDNR and staff responsible for deer management programs at the City of Jackson and Meridian Township strongly recommend having broad public engagement as part of developing a deer management plan. Ann Arbor staff agree that community input is needed. Both online and public meetings would be utilized to receive community input, including input from Washtenaw County Parks and Recreation and the University of Michigan. Staff estimates that six months is needed for the public engagement and that it can begin within 45 days of City Council approval to proceed. The six months is based on other cities and will include one public meeting to gather input and at least one follow up meeting to share the outline of the plan; goals and objectives of the plan would be based upon the input at the first public meeting and information gathered through other methods. The plan would include methods to accomplish the goals and objectives. If the plan recommends lethal methods, and City Council agrees with the plan, a cull could occur in Fall 2015. Plan components would include ordinance

changes required to implement the plan's recommendations while maintaining compliance with MDNR regulations and state law, such as allowing the discharge of firearms within the city.

### **Cost estimate for Ann Arbor**

Estimated staff time to develop a plan is 160 hours. Contractual public engagement and support to develop a management plan is \$20,000.

Non-lethal deer management methods, such as an ordinance prohibiting the feeding of deer, would have minimal cost for the City of Ann Arbor.

Lethal deer management within the City would have administrative costs and, depending on the method, implementation cost depends upon the number of deer to be harvested, cost of harvesting and processing, permitting cost, communication, and staff time for managing the program. Estimated cost to harvest 40-50 deer for the City of Ann Arbor is \$25,000 - \$27,000 per year including City staffing cost, in the amount of \$14,000, to administer the program.

### **Bibliography**

1. MDNR Guidelines for Deer Management on Urban and Suburban Levels in Michigan by Ed Langenau, Edmund J Tucker, Timothy Payne and Earnest N. Kafeas, 1993
2. Michigan Deer Management Plan, Wildlife Division Report No 3512, May 6, 2010
3. Urban Deer Technical Guide by Indiana Division of Fish and Wildlife
4. Charter Township of Meridian – 2013 Deer Management Plan
5. [www.wc4eb.org](http://www.wc4eb.org)
6. [www.deerfriendly.com](http://www.deerfriendly.com)
7. Washtenaw County Health
8. State of Michigan Department of Community Health
9. [www.michigantrafficcrashfacts.org](http://www.michigantrafficcrashfacts.org)

ATTACHMENT 1



City of Ann Arbor

301 E. Huron St.  
Ann Arbor, MI 48104  
<http://a2gov.legistar.com/Calendar.aspx>

Legislation Details (With Text)

File Number: 14-0714

File ID: 14-0714

Type: Resolution

Status: Passed

Version: 1

Reference:

Controlling Body: City Council

\* Requester: City Council

File Created Date : 05/05/2014

\* File Name: 5/5/14 - Deer Management Options

Final Action: 05/05/2014

Title: Resolution Directing City Administrator to Evaluate Deer Management Options for Council Consideration

Notes:

Agenda Date: 05/05/2014

Agenda Number: DC-2

Sponsors: Lumm, Briere, Kailasapathy and Petersen

Enactment Date: 05/05/2014

Attachments:

Enactment Number: R-14-144

Drafter/Contact: Jacqueline Beaudry

Hearing Date:

\* Admin/Mgr:

Effective Date:

History of Legislative File

Version:	Acting Body:	Date:	Action:	Sent To:	Due Date:	Return Date:	Result:
1	City Council	05/05/2014	Approved				Pass

Text of Legislative File 14-0714

Resolution Directing City Administrator to Evaluate Deer Management Options for Council Consideration

Whereas, Deer populations are elevated and increasing, with the Washtenaw County Parks and Recreation Commission estimating that the deer population in Washtenaw County has been steadily increasing over the last 15 years;

Whereas, The City Natural Area Preservation Program participated in an aerial deer survey of the Marshall Nature Area in northeast Ann Arbor in the winter of 2013 which indicated a deer density of 76 per square mile for that specific area;

Whereas, Scientific studies indicate deer densities of 15 - 20 per square mile or less are considered a more optimal level for public health (e.g., tick population), safety (e.g., traffic collisions) and landscape management purposes;

Whereas, Ann Arbor residents have requested the City's assistance with deer management and have provided helpful information about deer numbers, travel patterns, and landscape damage, providing an increasing sense of urgency for the City to explore and propose options to address public health, traffic safety and landscape destruction;

Whereas, Deer management options are costly and often elicit strong emotions, requiring the presentation of accurate, unbiased information based on sound science regarding effectiveness as well as strategies/solutions that are accompanied by a high level of community acceptance and support;

Whereas, Land use in the City and County provides plentiful food and habitat for the deer, requiring a regional approach to deer management; and

Whereas, The City Administrator is authorized, under City Ordinance 9:53, to approve and permit the control and management of wildlife that causes property damage or creates a nuisance or health hazard, and the permitting for such actions must be coordinated with and issued by the Michigan Department of Natural Resources;

Resolved, That the City partner with the Washtenaw County Parks and Recreation Department and Commission, the University of Michigan, the Humane Society of Huron Valley and other interested parties to develop information and strategies needed for deer management, including conducting deer counts; researching damage caused by deer to wildlife, native vegetation, and forest regeneration; and obtaining assistance from the Michigan Department of Natural Resources Wildlife Division;

Resolved, That the City Administrator shall report to City Council by July 31, 2014 on the status of the partnership, including budget and timelines; and

Resolved, That the desired outcome from the partnership is a community-endorsed deer management plan.

Sponsored by Councilmembers Lumm, Briere, Kailasapathy and Petersen

## ATTACHMENT2

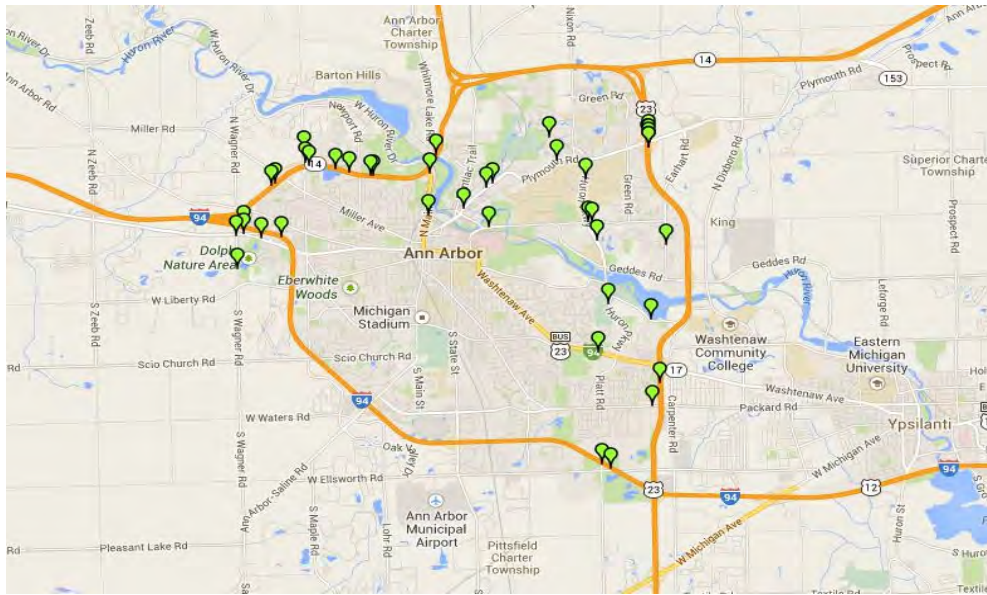
<b>2013 AERIAL DEER SURVEY RESULTS - PRELIMINARY</b>					
Day	Park	Acreage	Sq. miles (acres/640)	2013 Deer Count	2013 Densities (rounded-up)
9-Feb-13	Addison Oaks - East	354	0.553125	18	33
9-Feb-13	Addison Oaks - Main	1140	1.78125	40	23
9-Feb-13	Groveland Oaks	361	0.5640625	0	0
9-Feb-13	Highland Oaks	298	0.465625	5	11
9-Feb-13	Independence Oaks	1094	1.709375	33	20
9-Feb-13	Lyon Oaks	1041	1.6265625	57	36
9-Feb-13	Orion Oaks	913	1.4265625	22	16
9-Feb-13	Rose Oaks	639	0.9984375	4	4
9-Feb-13	Upland Hills	103	0.1609375	0	0
9-Feb-13	Upper Bushman	187	0.2921875	11	38
9-Feb-13	Waterford Oaks	185	0.2890625	6	21
9-Feb-13	SPG TWP - Shiwassee Basin Preserve	539.6	0.843125	20	24
9-Feb-13	SPG TWP - River Run Preserve	72	0.1125	4	36
9-Feb-13	Rochester 1	309	0.4828125	27	56
9-Feb-13	Rochester 2	120	0.1875	14	75
9-Feb-13	Rochester 3	134	0.209375	9	43
9-Feb-13	Rochester 4	140	0.21875	0	0
9-Feb-13	Rochester 5	160	0.25	28	112
9-Feb-13	Rochester 6 - Bloomer	210	0.328125	28	85
9-Feb-13	Rochester 7	111	0.1734375	16	92
9-Feb-13	Rochester 8	215	0.3359375	5	15
9-Feb-13	Rochester 9	236	0.36875	20	54
9-Feb-13	Rochester 10	93	0.1453125	23	158
9-Feb-13	Hess-Hathaway/Vacant School/OCC	405	0.6328125	8	13
9-Feb-13	WASH - Horner	100	0.15625	13	83
9-Feb-13	WASH - Leonard Preserve	237	0.3703125	28	76
9-Feb-13	WASH - Marshall	84	0.13125	10	76
9-Feb-13	WASH - Raymond	35	0.0546875	0	0
9-Feb-13	WASH - Unnamed	5	0.0078125	0	0
9-Feb-13	WASH - Vistas	54	0.084375	5	59
9-Feb-13	U of M - Mathei	360.4	0.563125	3	6
9-Feb-13	U of M - Rodrick	384.4	0.600625	10	17
<b>TOTALS =</b>		<b>10319.4</b>		<b>467</b>	

*The 2013 Oakland County Parks Aerial Deer Survey was conducted on February 9, 2013 during 4-6" snow-cover conditions at an average altitude of 400 feet and 25-35 knots, over 7.7 hours of flight time. A total of eight Oakland County parks were surveyed (see attached survey results). In addition, Washtenaw County Parks, the University of Michigan, and the communities of Rochester, Springfield, and Waterford, partnered with OCPD to have key parcels within their jurisdictions surveyed. Michigan Natural Feature Inventory (MNFI) Biologists recommend deer densities of 15-20 deer per sq. mi. to promote the ecological health and function of natural communities.*

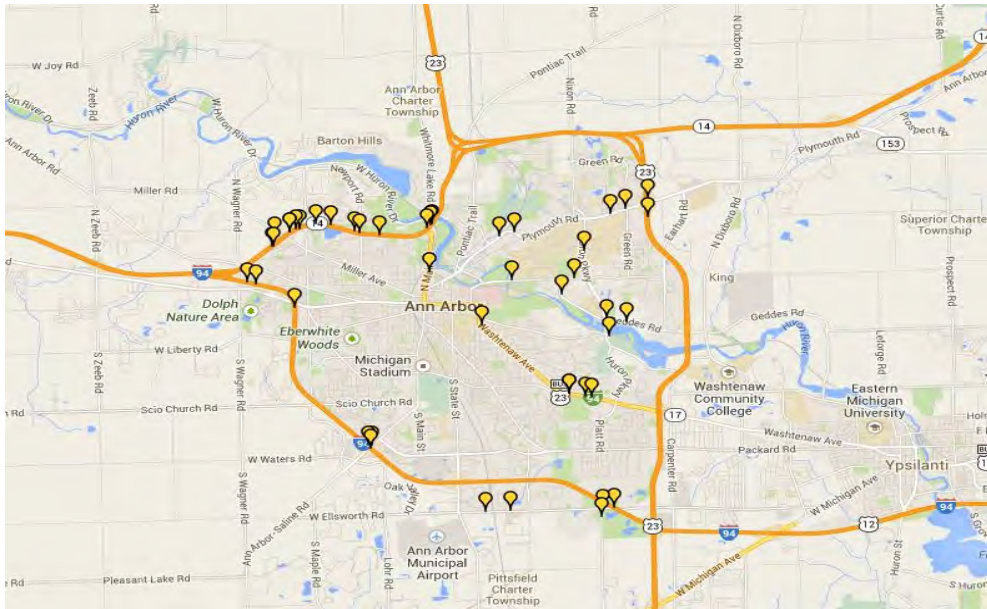


# ATTACHMENT 3

## Vehicle Deer Crash Locations



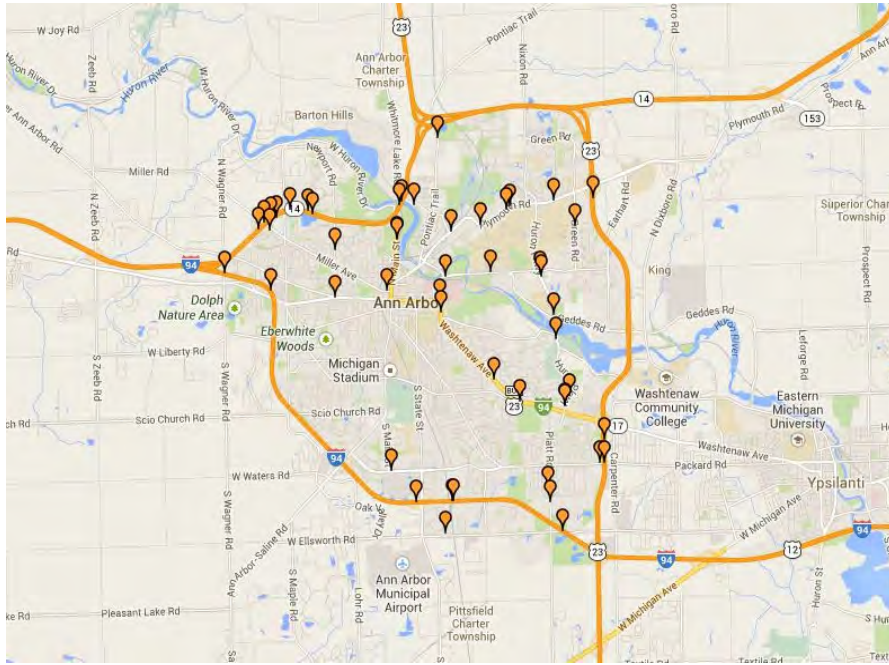
Deer Vehicle Crashes in 2011



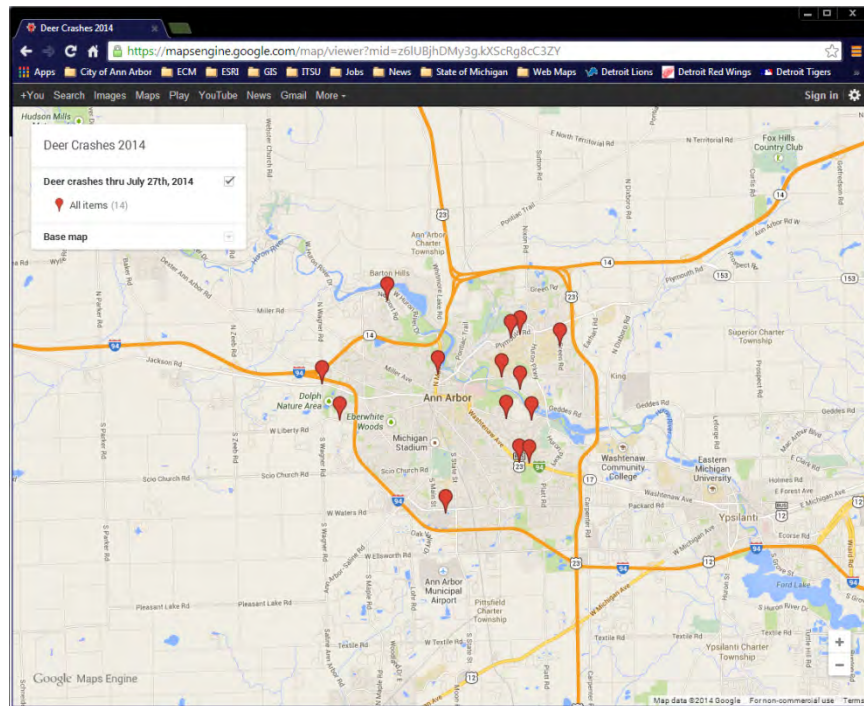
Deer Vehicle Crashes in 2012

# ATTACHMENT 3

## Vehicle Deer Crash Locations



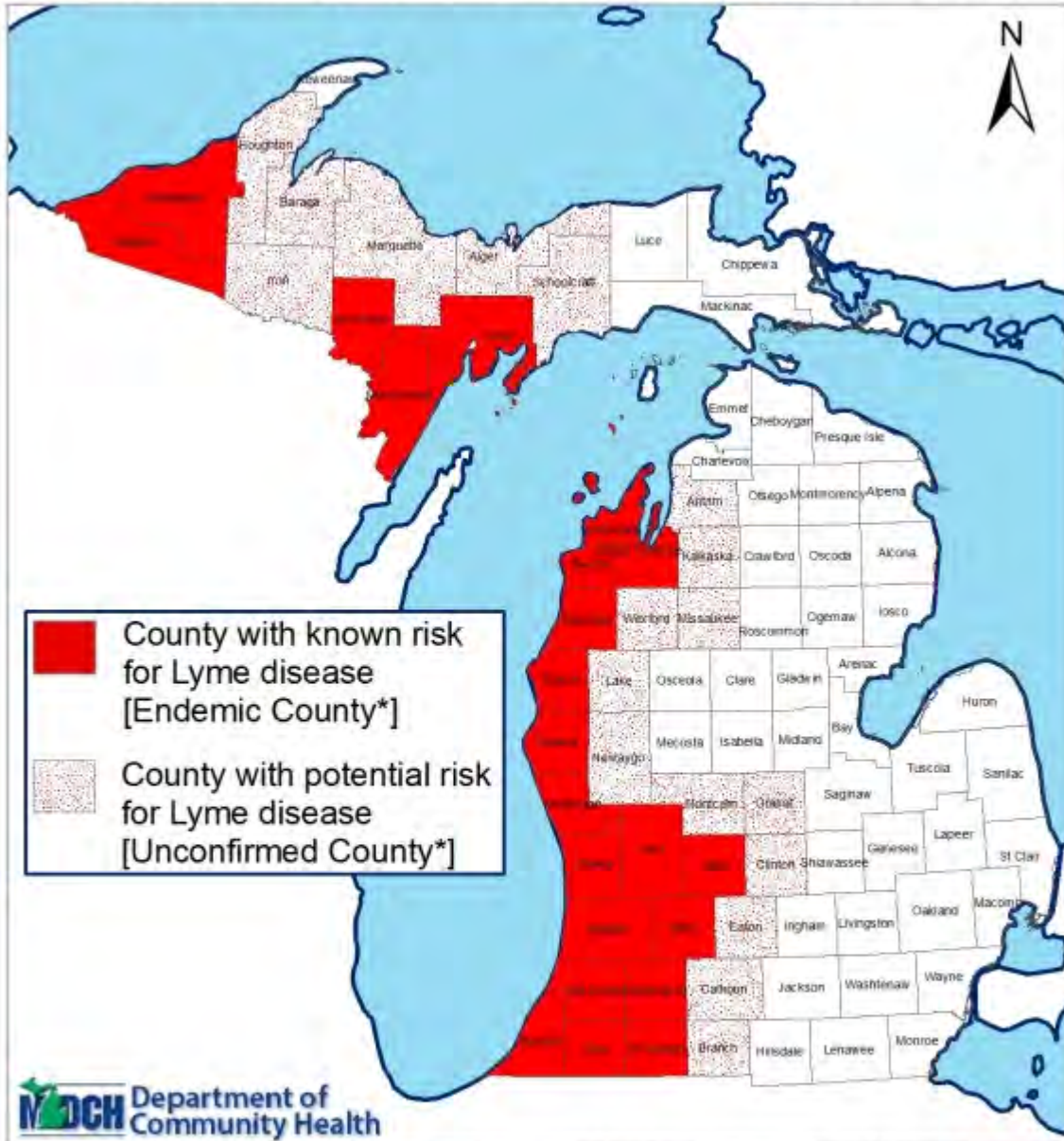
Deer Vehicle Crashes in 2013



Deer Vehicle Crashes (Jan –July 2014)

ATTACHMENT 4

# Michigan Lyme Disease Risk Map: 2014



\* Lyme disease risk in this map is based on known, field confirmed populations of infected blacklegged ticks, or laboratory confirmed human cases.

- a) Counties labeled "endemic" are counties where infected tick populations have been confirmed - and/or -  
Two or more laboratory confirmed human cases have been identified with local exposure.
- b) Counties labeled "unconfirmed" are counties bordering endemic counties, but which do not meet the above criteria for "endemic" counties.

MDCH Zoonotic Disease and Special Projects Section, Revised April, 2014

## ATTACHMENT 5

### Deer Management Methods

Method	Does it address deer population immediately	Does it require maintenance	Is it allowed in Michigan (MDNR)	Estimated Cost/deer	Comments
Fencing (10 ft min ht)	No	Yes	Yes	Varies	<b>City ordinance does not allow 10 ft high fences in residential areas.</b> ZBA variance will be required. Suitable for small areas; Restricts access of deer to problem area
Repellants	No	Yes	Yes	Varies	
Plant deer resistant landscape	No	Yes	Yes	Varies	-
Ban on deer feeding	No	-	Yes		
Fertility Control	No	Yes	No	\$300-\$500	Not highly effective at controlling population in free ranging animals
Sterilization	No	Yes	No	\$1,000-\$1,500	Not highly effective at controlling population in free ranging animals
Trap & Relocate	Yes	Yes	No	>\$1,000	Removes problem deer from immediate area of conflict; Stressful to deer
Trap & Euthanize	Yes	Yes	Yes	\$400-\$500	Reduction of deer population; Opportunity for venison donation; Stressful to deer; Requires access and participation

					by property owners; Requires trained specialists
Hunting	Yes	Yes	Yes		Opportunity for venison donation; Difficult in communities with dense housing; Requires access and participation by property owners; <b>City ordinance does not allow hunting and firearms; State law does not allow hunting or discharging a firearm within 450 feet of an occupied building (known as "Safety Zone"), but with the written permission of the property owner hunting and firearm can be discharged within a Safety Zone</b>
Sharpshooting	Yes	Yes	Yes	\$150-\$250	Rapid reduction of deer population; Opportunity for venison donation; Requires access and participation by property owners; Requires trained specialists; <b>City ordinance</b>

					<p><b>does not allow hunting and firearms; State law does not allow hunting or discharging a firearm within 450 feet of an occupied building (known as "Safety Zone"), but with the written permission of the property owner hunting and firearm can be discharged within a Safety Zone</b></p>
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