

# Charter Township of Meridian



## - 2013 - Deer Management Plan - *DRAFT*





# **DEER MANAGEMENT PLAN**

## **Meridian Charter Township**

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## **DEER MANAGEMENT PLAN MERIDIAN CHARTER TOWNSHIP**

### **I. INTRODUCTION**

#### **A. Community Description & Location**

Meridian Charter Township is located in Central Michigan, on the northern edge of Ingham County. As of the 2010 census, the township had a population of 39,688. Meridian Township is the local government unit that includes the unincorporated communities and census-designated places of Haslett and Okemos. The Township takes its name from the fact that the Michigan Meridian, the prime north-south survey line, runs along the eastern edge of the township. It is from this line that all townships were surveyed and measured.

Meridian Township originally encompassed 36 square miles with boundaries of Coleman Road on the north, Jolly Road on the south, College/Abbott Roads on the west and Meridian Road on the east. Over the years, due to annexations by East Lansing and a 425 agreement with the City of Lansing, the western boundary has changed and the Township now encompasses 31.7 square miles. Michigan State University borders the Township on the southwest side. Michigan's State Capital, Lansing, is located eight miles to the west of Meridian Township.

#### **B. General Description of Potential Deer Management Areas**

##### **1. Government-Owned Property**

###### **a. Meridian Township-Owned Property**

Potential deer management areas may include select parks, land preserves, or other township-owned properties that are not specifically designated as a parks or land preserves.

### **b. Ingham County-Owned Property**

Ingham County Parks owns and manages two regional parks in the north-east portion of the township: Lake Lansing North and South Parks.

In addition, Ingham County owns 100 acres of property on the east side of Dobie Road, south of Hatch Road that may be suitable for future managed harvests.

**2013 Update:** Ingham County Parks has requested to work cooperatively with Meridian Township to place hunters in Lake Lansing Park North. Meridian Township will provide deer management within Ingham County Park during the regular bow season (October 1, 2013 through January 1, 2014) with the assistance and guidance of Ingham County Parks staff. Hunters will be qualified and managed utilizing Meridian Township's Deer Management Program regulations.

### **c. Michigan State University (MSU)**

The University owns a 107-acre area designated as the Dobie Reserve, located on the west side of Dobie Road and the north side of the Red Cedar River. MSU also owns large farms within the south-west portion of the township.

**2013 Update:** MSU does **not** wish to participate in the deer management program at this time, nor will they place their own Pest Management employees at the Dobie Reserve.

## **2. Private Property**

The township contains numerous private parcels of land that are greater than five acres in size that may be suitable for hunting. In addition, it may be possible to manage deer on several smaller private properties that have suitable hunting property that collectively comprise five acres or more. Meridian Township is able to provide antlerless deer permits to properties that are directly adjacent to one of the township-owned properties that have been designated for hunting.

**2013 Update:** Meridian Township staff and volunteers will send letters to private homeowners and businesses encouraging them to hunt their property or to make their property available to Meridian Township qualified hunters.

Meridian Township staff or volunteers will follow up with a personal phone call to the land owners.

### **3. Commercial Properties, Cemeteries, & Golf Courses**

#### **Participating Properties:**

- a. Indian Hills Golf Course:** Indian Hills Golf Course regularly hunts their property and will continue to do so in 2013.
- b. Meridian Sun Golf Course:** Meridian Sun Golf Course regularly hunts their property and will continue to do so in 2013.
- c. Eastlawn Cemetery, Bennett Road:** We are in the process of working with Eastlawn for approval to place hunters on their property.

#### **Non-Participating Properties:**

- e. Delta Dental, Okemos Road:** Delta Dental does not wish to participate in the managed deer harvest at this time.
- c. College Fields Golf Course:** College Fields Golf Course does not wish to participate in the managed deer harvest at this time.

## **II. PURPOSE**

### **A. Reasons for the Development of a Deer Management Plan**

- 1. The Township has documented numerous complaints of white-tailed deer (*Odocoileus virginianus*) damage from township residents.
- 3. Response to complaints of damage to personal property (landscaping).
- 4. Increased deer/vehicle accidents within the township.
- 5. Increase of deer/human contact.
- 6. Deer roaming into densely populated residential neighborhoods.
  - In urbanized areas, remnant natural areas exist as fragmented landscape.
  - Deer may become highly concentrated in remaining habitat islands.
- 2. There is evidence of damage to the park and land preserve's ecosystems by deer over-browsing, as noted by local biologists.
  - Recognizing that parks and land preserves support ecosystem services, protect water quality and provide wildlife habitat.

- Recognizing that preferred native forage plants (oak, cedar, trillium, bloodroot, and trout lily) may require up to 10 years to regenerate.
- Recognizing that deer may facilitate the introduction and spread of invasive species through preferential forage on native plant species and serving as dispersal conduits along game trails.
- There is a high density of game trails throughout parks and land preserves and in residential neighborhood's common natural areas.
- Parks and land preserves serve as a protected area for plants and animal species.
- Impacts on native plant communities have cascading effects on associated wildlife species.

### **III. GOALS OF DEER MANAGEMENT PROGRAM**

#### **A. Natural Resources Management Philosophy**

Land management utilizes an ecosystem approach to ensuring the health and function of park and land preserve's natural communities. Management methods may include the control of deer densities, removal of invasive species, application of prescribed burns, and reintroduction of native plants.

#### **B. MDNR Deer Management Philosophy**

The MDNR supports deer management in urban/suburban areas to help address:

1. Damage to ecosystems
2. High vehicle-deer crash incidence rate
3. Damage to residential landscaping and gardens
4. Public Act 451 of 1994: The wildlife and their habitats of the state are valuable public natural resources held in trust by the state and the state has a duty as trustee to manage its wildlife and their habitats effectively for the use and enjoyment of present and future residents and for the protection of the environment.
5. Natural Resources Commission Policy #2007: The Department's goal is to manage the deer herd using management practices based on scientific research to:
  - a. Maintain healthy animals and keep the deer population within limits dictated by the carrying capacity of the range
  - b. Limit effects on native plant communities, agricultural, horticultural, and silvicultural crops and public safety.

## IV. DEER POPULATION INFORMATION

### A. Michigan Deer Population - Statewide Trends

According to the MDNR, in the absence of predators, unmanaged herds readily increase to abundant levels which can result in:

1. Increased propensity for disease
2. Poor individual health of deer
3. High incidence of roadside mortality (vehicle-deer collision)

### B. Deer Population Goal

Michigan Department of Natural Resources (MDNR) and Michigan Natural Features Inventory (MNFI) suggest that minimizing impacts to natural communities and associated wildlife may require managing herds at less than 15-20 deer per square mile.

### C. Deer Productivity

According to the MDNR, it is possible that deer productivity may increase as population is reduced. Deer management clearly needs to be a multi-year effort. It is our hope that private landowners and adjacent communities will help address the over-population issues as well.

### D. Deer Population Evaluation

It is difficult to obtain exact numbers of the deer herd population in uncontained settings. Options for establishing population include:

1. Utilization of helicopter surveys to attempt to develop base line population information. The downside to utilizing helicopters is that it can be costly.
2. Local biologists have stated that it is unnecessary to take the measure of conducting a helicopter survey, and that the damage to vegetation, incidents of deer/vehicle accidents, and simple observations provide direct evidence and measures of the impacts of deer populations intended to be managed.
3. Trail cameras and observation are another possibility for gathering informal numbers on the deer population.
4. Informal "herd count" data is reported from township residents and hunters.

### E. Deer Population Study

In 2013, Chad Blass, a PhD candidate at MSU began a study of *The Social and Spatial Structure of White-tailed Deer in Suburban and Urban Landscapes*. This study focused on an area within the township that is approximately four square miles in size and is generally located south of Hamilton Road, west of Dobie Road, east of Jolly Road, and north of Kinawa Road. Their research



involved collecting deer pellets and conducting DNA testing to determine the site fidelity of herds of deer. To date, no studies have documented the social structure of deer in suburban environments or the area they occupy; so this will be the first study of its kind in Michigan. The objective is to quantify the area occupied by a herd or family of deer. The implication is that the study results will aid deer managers in developing control strategies tailored to the desires of local neighborhoods. Mr. Blass is proposing to expand his studies to a larger area within the township during the early fall of 2013 and winter of 2014.

## **V. MONITORING AND EVALUATION OF BROWSED VEGETATION**

Measures may be taken to evaluate improvements in the composition and structure of native plant communities.

### **A. Deer Enclosures**

Deer enclosures are fenced areas that exclude deer. They are generally 10-12' in height and should be approximately 10' x 20' in size. The enclosures may be constructed in:

1. Harris Nature Center, located in Meridian Riverfront Park
2. Davis-Foster Land Preserve
3. Nancy Moore Park
4. Lake Lansing North (Ingham County Park)

### **B. Observations of Composition and Structure of Native Plant Communities**

The deer enclosures will allow for direct comparison in areas that are open for deer browsing versus areas that are enclosed with fencing ("enclosures"). Notable signs may include visible regeneration of oak, white pine, and cedar, increased diversity of spring ephemeral wildflowers, and a reduction in the under story browse line. In addition, these highly visible enclosures may include educational signage stating their purpose. The enclosures will be placed on township properties that have a high number of visitors for the purpose of providing public education on the issue.

**2013 Update:** Deer enclosures and educational signage were constructed within Lake Lansing North County Park in 2012 (within the 120-acre area that is covered by a Meridian Land Preservation Conservation Easement). Data has been collected to document the area that is open to deer browsing and the area that is fenced off to deer browsing. The evidence of over browsing is already obvious after just one year.

## **VI. ALTERNATIVES TO HUNTING**

### **A. Fencing**

1. Prohibits landscape connectivity and wildlife movement. Fences should be a minimum of ten feet in height.

### **B. Translocation or Trapping**

1. Wildlife Division of MDNR will not allow removal of live deer. Deer may not be converted to private ownership.
2. Deer may be trapped and euthanized. Affordability depends upon source of labor, extent of local involvement.

### **C. Deer Immunocontraception (Birth Control)**

1. Wildlife Division has not allowed treatment. No approved treatment method is currently available in Michigan at this time.
2. Feasibility and affordability are limited.
3. Efficacy and side effects vary by treatment method.
4. Annual applications are generally required to maximize effectiveness.

### **D. Surgical Sterilization of Deer**

1. Wildlife Division of the DNR does not allow sterilization.
2. Feasibility and affordability are limited. Capture and nearby facilities or mobile surgical procedures are required.

### **E. Landscape Alternatives**

1. Meridian Garden Club - brochure about deer-resistant plants
2. Harris Nature Center and Meridian Township website – educational information about deer-resistant plants
3. Managing roadside vegetation to improve visibility
  - a. Ingham County Road Commission
4. Modify driver behavior - signs and reflectors

### **F. Roadside Management Options**

1. Clear road edges of vegetation
2. Increase signage at deer crossings
3. Install reflectors at deer crossings

## **VII. GENERAL FEATURES OF 2013 MANAGED HUNT**

1. Initiate highly managed hunts on Township property.
2. Encourage private homeowners to hunt or allow hunting on their property. Follow up letters with a personal phone call.

3. Hunt will be conducted during the regular hunting season (bow and firearm seasons, October 1 through January 1) and also during the early antlerless season, if available (September 21 and 22).
4. The primary focus is antlerless deer, but antlered deer may be harvested per the Township's "Earn-a-Buck" program.
5. Township properties are open to the general public on hunt days. The township may consider closing designated properties on certain days to increase the effectiveness of the harvest.
6. Hunting properties are posted to alert visitors that a hunt is in progress.
7. Adjacent property owners are notified of upcoming hunt via mailings and press releases are sent to the local news sources.
8. Humane treatment of deer.
9. Donation of the majority of the venison to the hungry.

## **VIII. GENERAL MANAGED HUNT PROCEDURE & PROCESSING**

### **A. Rules and Regulations**

All hunting will be per State of Michigan laws and per Meridian Township Deer Harvest Regulations.

### **B. Safety**

Top priority of a managed hunt will be to protect the safety of hunters, neighboring residences, and the general public.

### **C. Dates and Times**

A managed hunt will be held during the early antlerless season (September 21 and 22, 2013 and during the regular bow and firearm seasons (October 1, 2013 through January 1, 2014).

### **D. Archery Hunting**

1. The Meridian Township program is **ALL** archery. **No** firearms are allowed on township properties.
2. Generally speaking, there is greater public acceptance for bow hunting because of the noise and the concern for errant shots.

### **E. Firearm Hunting**

There will be no firearm hunting during the 2013 regular season managed harvest.

### **F. Establishment of Deer Blinds, Routes and Tracking**

1. MDNR safety zone regulations will be observed
  - a. One hunter is housed per blind per hunt date.
  - b. Hunters must remain within 50 feet of the blind or stand while hunting.
  - c. It is expected that bow hunters will only take shots within their level of proficiency in accordance with hunter's ethics, which dictate that a shot is only taken when capable of effectuating a quick and humane harvest. Hunters using a compound bow should limit

their shots to a maximum of 40 yards and those using a crossbow should limit their shots to a maximum of 50 yards.

- d. The following items will be included on aerial photos that will be provided to the hunters:
  - 1. Property boundary lines
  - 2. Neighborhood notification extent
  - 3. 450 ft safety zone around occupied dwellings
  - 4. Blind locations
  - 5. Park or preserve trails
- e. No hunting occurs within 450 feet of an occupied dwelling.
- f. Written permission to hunt or retrieve deer on private property.
- g. Baiting is allowable per MDNR regulations.

**G. Hunter Selection**

Hunters are volunteers and are selected on a first-come-first-served basis. All hunters must be township residents, possess a valid hunting license, be 18 years of age or older. Hunters are subjected to a background check and are required to sign a waiver and a release. Preference is given to hunters who have participated in the previous managed hunts and who live nearby the designated hunting areas. All participating hunters must attend a mandatory orientation and safety instruction session (Deer Archery Workshop) at the Demmer Center, Michigan State University

**H. General Public Notification**

The public will be sufficiently notified of the upcoming deer harvest program via press releases that will be published in the local newspaper or on news media, letters mailed to adjacent residences, posted signs, social media, and the township website.

**I. Neighborhood notification**

- 1. Notification to neighbors adjacent to the township boundary
- 2. Address and other contact information is obtained from the latest parcel information layer available to staff.
- 3. In instances where notification involves a portion of a subdivision, an effort is made to include the full extent of the street that contains parcels following into the adjacency category.
- 4. Neighbors will receive notification letters 21 days prior to the first scheduled managed hunt date.

**J. Radio communication with hunters**

1. Radios will not be provided to hunters during the 2013 regular hunting season.

**K. Township Police and MDNR Conservation Officer support**

1. Meridian Township Public Safety and MDNR Conservation Officers may be present on-site during the harvest and will be available for support to hunters or concerned citizens.
2. Hunters are required to call in to report to the Meridian Township Police Cadet desk each time they enter or exit a site during the harvest.
3. Hunters are required to call in to the Meridian Township Police Cadet desk if they are tracking a deer after dark.

**L. Deer Management Assistance Program (DMAP's)**

Meridian Township has received approval from the MDNR to conduct a managed deer harvest through the Deer Management Assistance Program. This allows the township to purchase a large number of permits. In 2013, the township will request permission to purchase 200 permits.

**Chapter V Special Permit Regulations:**

**5.80 Deer management assistance (DMAP) hunting permits; definitions, criteria for issuance, validity of permits, application procedures, restrictions and requirements; unlawful acts.**

Sec. 5.80 (1) The terms in this section shall have the meaning described to them in this section.

(a) "Permit" means a deer management assistance (DMA) permit.

(b) "Permittee" means a person who has applied for and been authorized to purchase deer management assistance permits by the department.

(c) "Authorized designee" means one person who has been designated by the landowner and approved by the department, to act on behalf of the landowner to apply for and implement the provisions of deer management assistance permits. The department reserves the right to deny a person, including the permittee, the authority to personally implement the provisions of a permit if such authority would conflict with a court order, administrative rule, or law.

(2) Permits may be issued statewide to owners or authorized designee of land located in areas where current antlerless harvest methods are insufficient to achieve department deer management objectives or where one of the following conditions exist:

(a) The department has documented that the property owner has significant agricultural or horticultural crop damage caused by deer.

- (b) The department has documented that a serious disease outbreak is a threat to the deer herd, livestock, or human health.
- (c) The department has documented a significant safety hazard from deer.
- (d) Current antlerless regulations are insufficient to achieve landowner deer management objectives.
- (3) DMA permits are valid only during an open season for the taking of deer as established by this order and only upon the land for which issued and adjacent private property with permission of the landowner.
- (4) DMA permits are valid only for the taking of an antlerless deer. A person less than 12 years of age shall not hunt deer with a firearm. A person hunting under the authority of a DMA permit shall carry the unused permit and shall exhibit the unused permit upon the request of a law enforcement officer.
- (5) A person, or authorized designee, owning land within a qualifying area as determined by the department, may apply for DMA permits by filing an agreement with the wildlife management unit supervisor. This agreement will include an estimate of desired antlerless harvest and numbers of hunters needed to meet the desired harvest objective. This agreement, once approved, shall be signed by both the permittee and wildlife management unit supervisor. The number of DMA permits will be determined by the wildlife management unit supervisor. A minimum of 5 DMA permits shall be issued per permittee. Failure to comply with these and other rules will make the permittee ineligible to participate in the DMA permit program for a period of one year.
- (6) The permittee shall not purchase more DMA permits than approved by the department.
- (7) These DMA permits shall be subsequently issued by the permittee. The permittee shall issue the DMA permits only to a person who purchased a bow and arrow deer, firearm deer, combination deer, or antlerless deer hunting license for the current hunting seasons. A person shall not accept, carry afield, use or attempt to use a DMA permit unless they had purchased a bow and arrow deer, firearm deer, combination deer, or antlerless deer license for the current hunting seasons. A permittee shall not sell a DMA permit. Permittees shall inform hunters about rules pertaining to the use of DMA permits.
- (8) Once issued by the permittee, a person issued a DMA permit shall not sell, lend, or allow another person to use or attempt to use the person's DMA permit. Unused permits may be reissued to hunters only by the permittee.
- (9) The provisions of section 3.103 shall apply to a permit and kill tag issued under this section. In addition, unless otherwise provided in this section, a person issued a DMA permit shall comply with all

rules and regulations for the taking of deer for the season in which they are hunting.

(10) Permittees shall report by January 15 to the wildlife management unit supervisor the name and address of all hunters and the number of deer harvested under the authority of DMA permits.

(11) Deer taken under the authority of a DMA permit shall not be included in the season limit as defined in section 3.101(8) of this order. The daily limit and season limit shall be 1 deer per DMA permit.

History: Am. 15, 1998, Eff. Sep 10, 1998; Am. 6, 2001, Eff. Jun 1, 2001; Am. 10, 2002, Eff. Jul 15, 2002; Am. 8, 2003, Eff. Jun 7, 2003; Am. 18, 2005, Eff. Sep 9, 2005; Am. 16, 2006, Eff. Aug 11, 2006.

## **IX. ON-GOING DEER MANAGEMENT**

### **A. Continued deer management on a multi-year basis**

1. The first deer harvest (2011) was a pilot program on a small scale, utilizing seven properties for hunting areas. In 2012, the program involved 18 properties. It is our intention to continue to hold managed hunts on a greater scale during years 2013+.
2. Continue to promote hunting on private properties.
3. It may be possibly hold a special extended harvest in January or February, as permitted by the MDNR. A special hunt was held in January and February of 2012 and two deer were harvested during this time.

## **X. PERSONAL LIABILITY**

- A. The hunters are required to sign a release of liability form for participation in a deer management program.

## **XI. PUBLICITY**

- A. Public Opinion Survey
1. Survey was conducted in 2012 through the township website, [www.meridian.mi.us](http://www.meridian.mi.us) or a paper copy was mailed to residents upon request. The survey received almost 900 responses.
- B. Letter to residents with greater than five acres of property
1. Promotion of private hunting, within MDNR regulations and season.
- C. Township property notification signs with hunt dates and times.
- D. Township meetings

1. The deer management plan will be discussed at the Township Board meetings, generally held on the second and fourth Tuesdays of each month
- E. Social Media
- F. Newspaper
- G. Local Television

## **XII. COSTS AND BENEFITS**

### **COSTS**

- A. Printing/postage
- B. Neighborhood and volunteer notification
- C. Park signage
- D. MDNR Licenses
- E. Supporting equipment
- F. Staff time

= TOTAL MANAGED HUNTS COST

### **BENEFITS**

- A. Donated meat= (\_\_\_lbs)
- B. Improved herd health = intrinsic value
- C. Habitat benefits = intrinsic value
- D. Reduced deer/vehicle collisions = public safety, lower insurance rates

## **XIII. TECHNICAL CONSULTANTS, OTHER EXPERT SUPPORT, ENDORSEMENT & OVERSIGHT.**

### **A. Michigan Department of Natural Resources**

1. Chad Fedewa, DNR, Wildlife Biologist, Rose Lake Field Office, 517-795-3280 (office)
2. Brent Rudolph, DNR, 517-641-4903 x 257

### **B. Michigan Natural Features Inventory**

1. Steve Thomas, [stevet4@sbcglobal.net](mailto:stevet4@sbcglobal.net)



- C. Michigan Sportsmen Against Hunger**
  - 1. Neal Easterbrook, 248-585-1415
- D. Safari Club International – Lansing Chapter**
  - 1. Jim Leonard, [JRLeonard54@gmail.com](mailto:JRLeonard54@gmail.com)
- E. Meridian Garden Club**
  - 1. Jean Goetz, President, [jeangoetz88@yahoo.com](mailto:jeangoetz88@yahoo.com)
- F. Clinton/Ionia branch of the QDMA (Quality Deer Management Area) and Stoney Creek Habitat Specialists**
  - 1. Chad Thelen, [chad@stoneycreekoutdoors.net](mailto:chad@stoneycreekoutdoors.net)
- G. Ingham County Parks**
  - 1. Willis Bennett, Director, [pk\\_bennett@ingham.org](mailto:pk_bennett@ingham.org)
  - 2. Pat Witte, Lake Lansing Manager, [pk\\_witte@ingham.org](mailto:pk_witte@ingham.org)
  - 3. Nick Sanchez, Seasonal Grounds Staff, [pk\\_sanchez@ingham.org](mailto:pk_sanchez@ingham.org) (Nick is also a part-time Assistant Naturalist employed by Meridian Township)

#### **XIV. SUMMARY**

Meridian Township's Deer Management Plan strives to focus on an ecosystems approach by creating co-existence among wildlife, citizens and our natural communities in a safe, humane and practical manner.

This deer management plan recognizes that the use and enjoyment of deer by residents is highly variable. Selection of deer management methods requires consideration of general concepts and location-specific deer dynamics.



## Meridian Charter Township – Deer Management Plan

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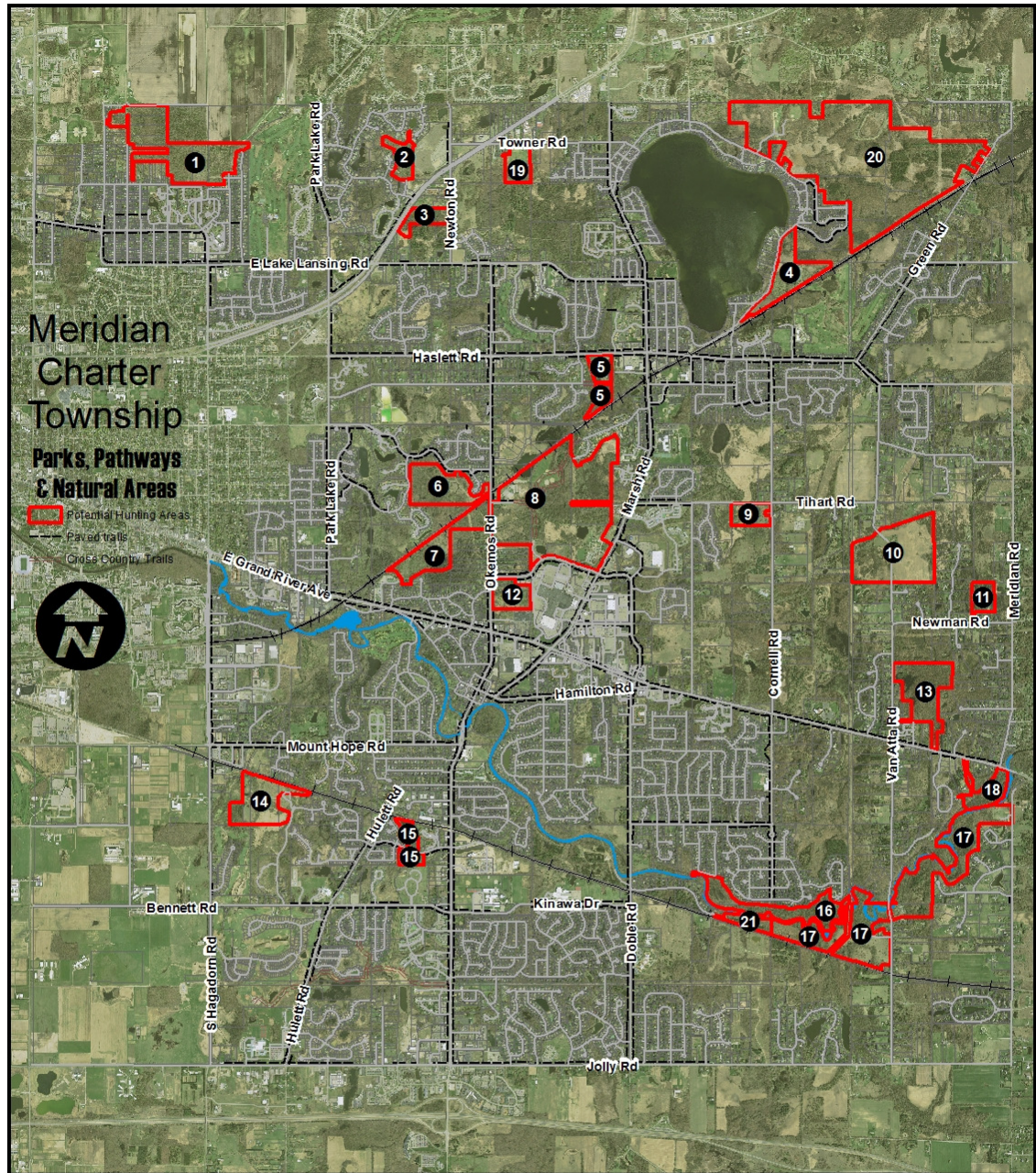
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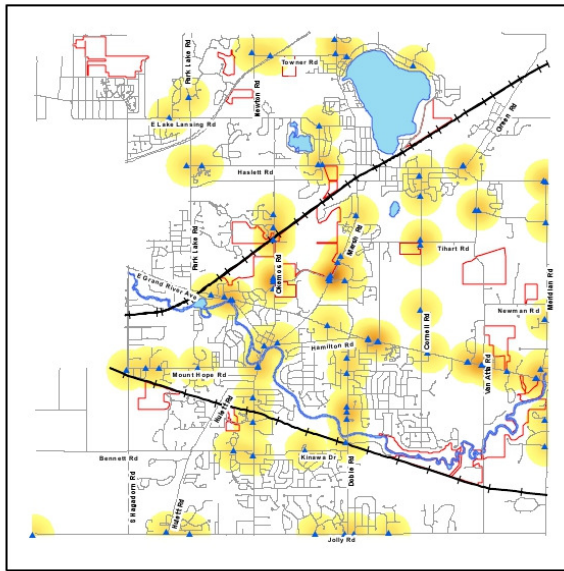




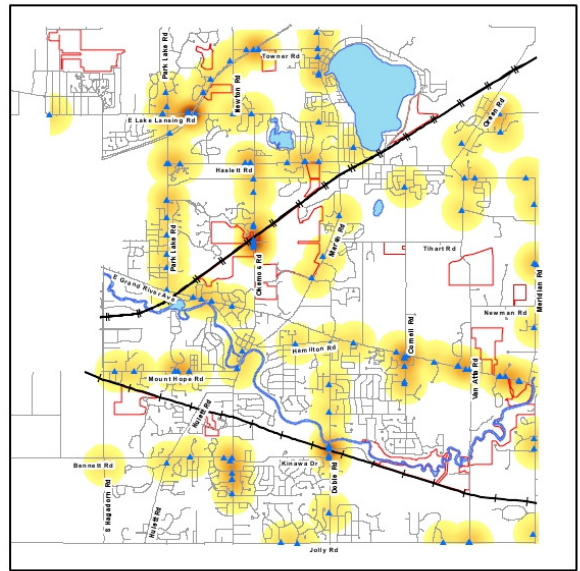
Area Name	Acreage	Area Name	Acreage
1 Northwest Land Preserve	125	11 Foster/Crouse Land Preserve	18
2 Northridge Land Preserve	25	12 Central Park Drive/Okemos Road (SE Corner)	28.5
3 Forest Grove Land Preserve	25	13 Ted black Woods Park	74
4 Meridian Transfer Station Property	50.6	14 Southwest Meridian 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 Tihart/Cornell Wetland Land Preserve	21	19 Towner Road Park	22
10 Davis/Foster Land Preserve	109	20 Lake Lansing Park North	360
		21 Red Cedar Glen Preserve	14

## Meridian Township 2013 Proposed Deer Management Areas

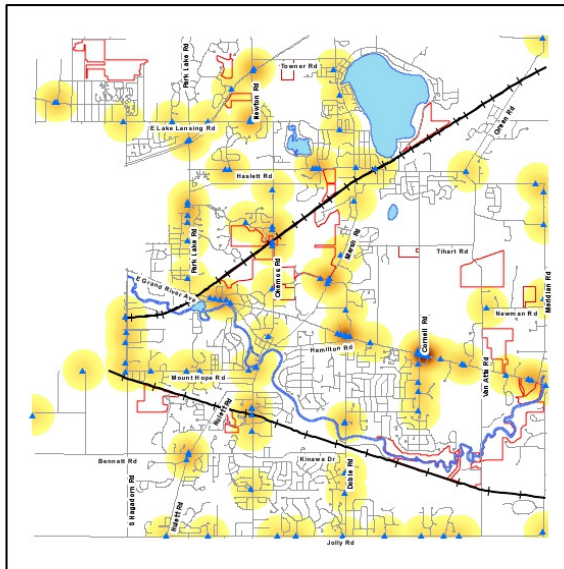




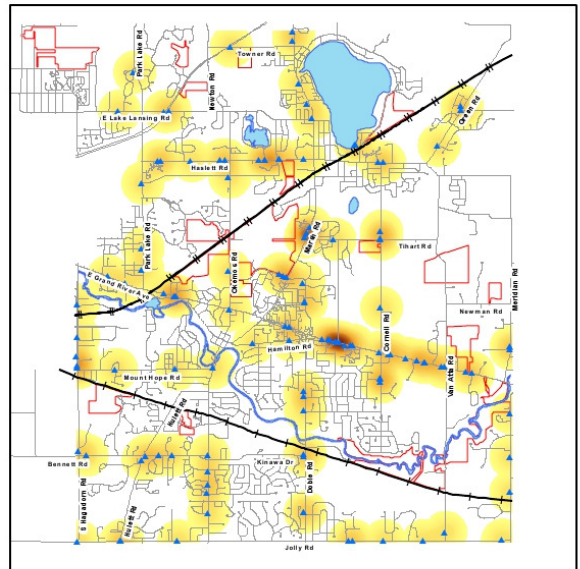
2008  
89 Collisions



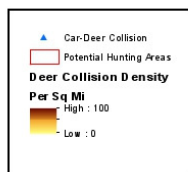
2009  
129 Collisions



2010  
125 Collisions

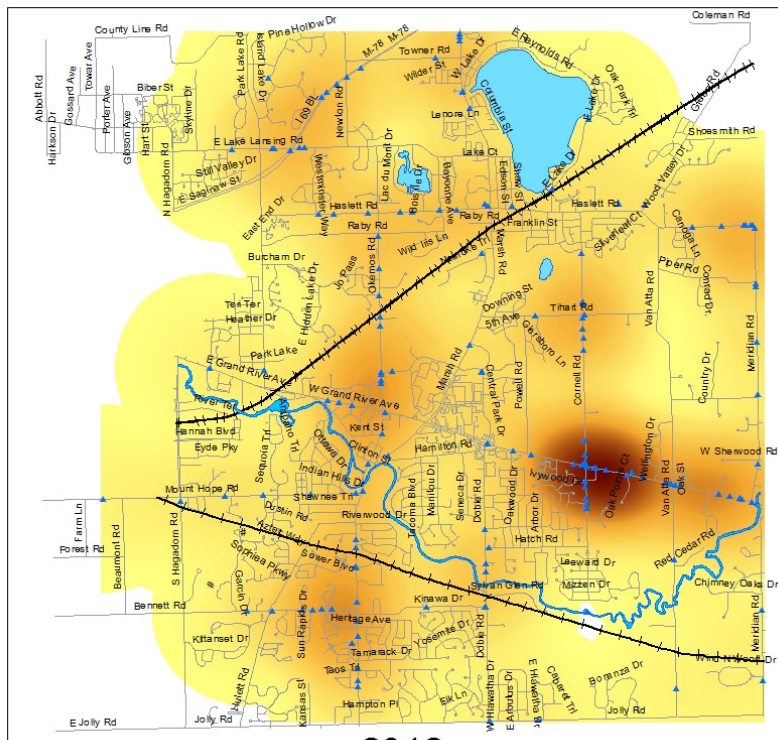


2011  
115 Collisions



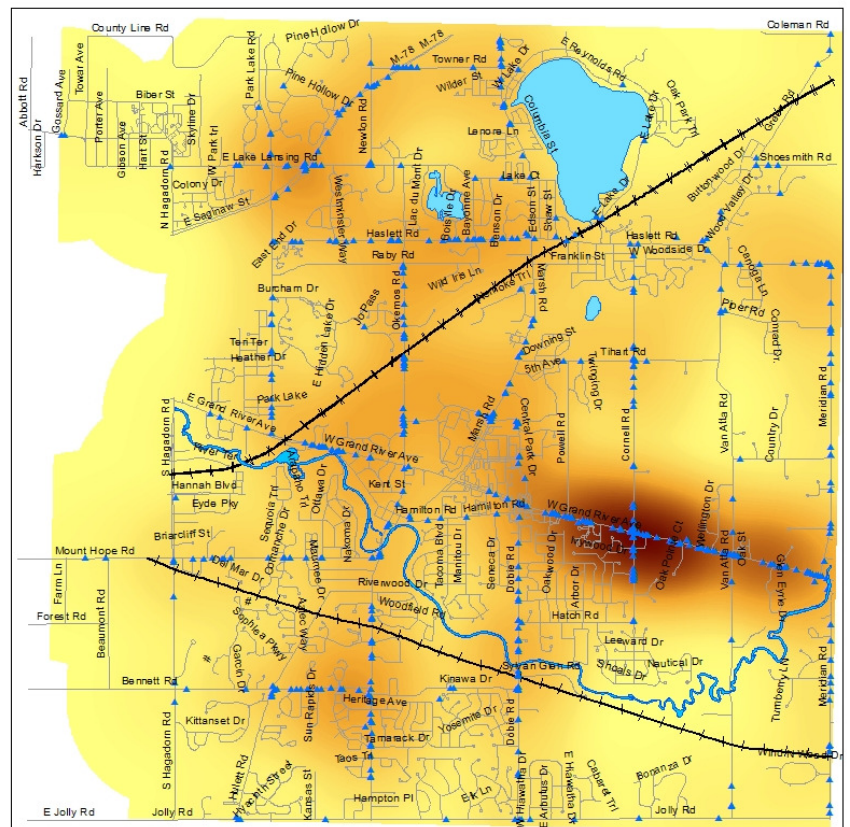
# Meridian Township Car/Deer Collisions





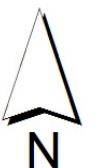
2012  
148 Collisions

▲ Car-Deer Collisions  
**Deer Collision Density**

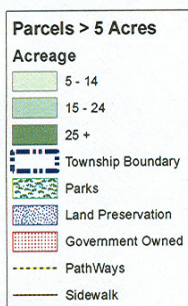
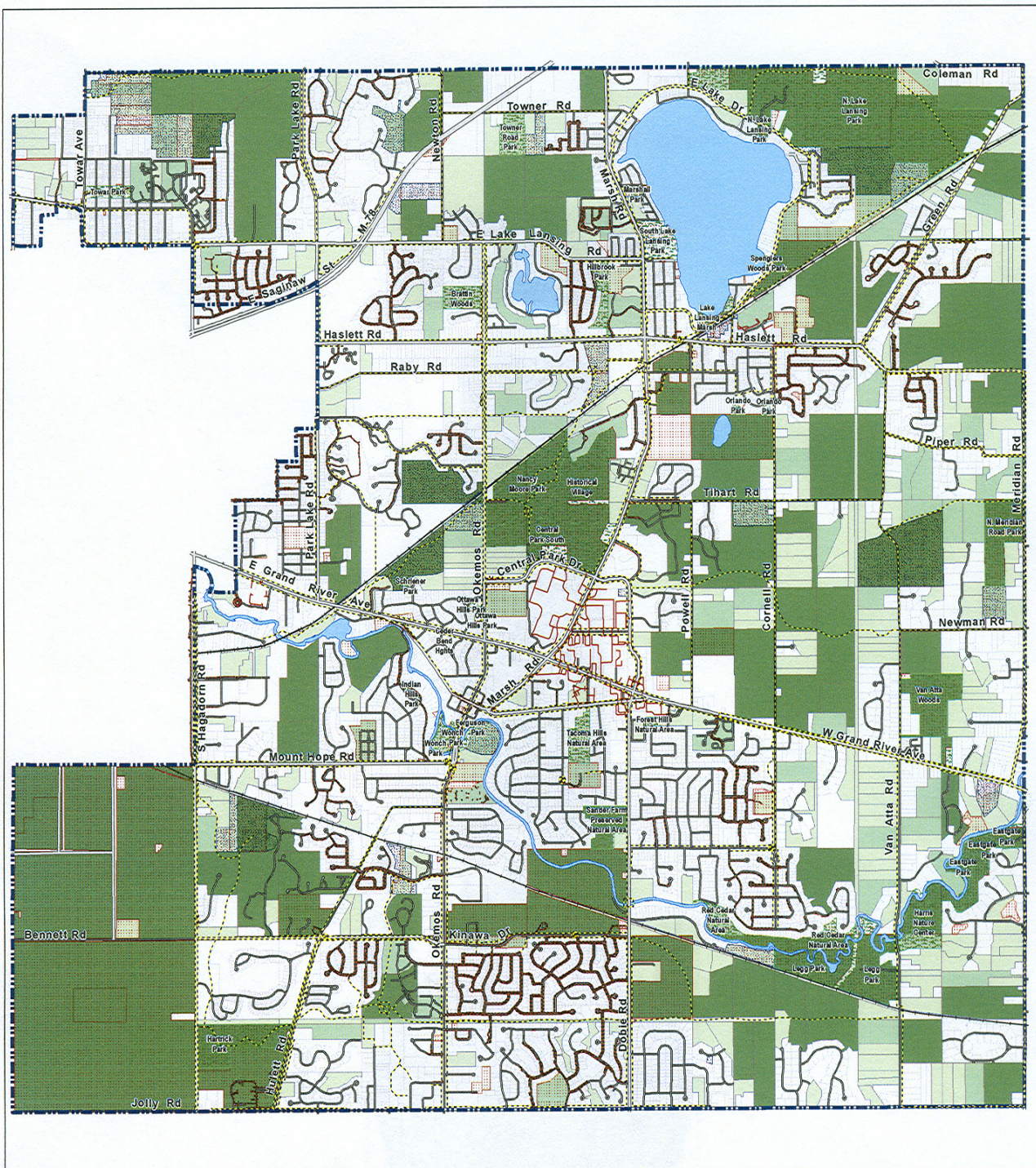


2008-2012  
619 Collisions

▲ Car-Deer Collisions  
**Deer Collision Density**







# **Deer Management Analysis** **Properties in Meridian Township > 5 Acres**

