

CITY OF EAU CLAIRE
URBAN DEER MANAGEMENT PLAN

By

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Eau Claire Deer Management Plan

Introduction

White-tail Deer Biology

Hunting Regulations

2014 Hunter Survey

Human Dimensions

Eau Claire Deer population Surveys

Non-lethal Management Techniques

Population Reduction Options

Recommendations

Introduction

White-tail deer are very abundant across North America and this is especially true in Wisconsin. They are recognized as a valuable natural resource for their viewing as well as for the hunting recreation they provide. Unfortunately, conflicts arise with homeowners, gardeners, landscapers, foresters, and motorists when their numbers reach a point where they start causing damage.

Because of their adaptability, they can flourish in an urban environment as well as rural. This is the case in Eau Claire, along with many other communities across Wisconsin and the nation. Eau Claire's waterways and green spaces provide travel corridors and hiding places while homeowners unintentionally provide an excellent food source with landscaping and gardens. Under these conditions, the deer population has grown to a point where the number of conflicts with many of the city's homeowners have become unacceptable.

Besides damage around homes, deer are a major cause of car accidents. There are over 1 million deer-vehicle collisions annually in the United States amounting to over 1 billion dollars in repair costs. These collisions can result in human injuries and even death.

White-tail deer are also a host for ticks that carry Lyme disease as well as other bacterial infections. There is some question as to whether reducing deer numbers will reduce the prevalence of Lyme disease but it will certainly reduce the tick abundance.

Chronic Wasting Disease (CWD) is increasing in Wisconsin and has recently been found in a deer farm in eastern Eau Claire County. There is a much greater chance of this disease spreading as deer densities increase and deer-to-deer contact becomes more common. As of now, there is no evidence of human health implications with CWD but the U.S. Centers for Disease Control advises that people do not consume meat from deer that test positive for CWD. Research continues to improve our knowledge of this disease.

White-tail deer have a tremendous positive value to society but that value diminishes as conflicts increase. Because both positive and negative values associated with deer are very high, setting management goals can be difficult.

The purpose of this Plan is to provide background information, management techniques, and population control options so the City Administration can make informed and realistic decisions on the future of white-tail deer management in Eau Claire.

White-tail Deer Biology

White-tail deer inhabit every county in Wisconsin. Populations range from over 100 deer per square mile of habitat in urban areas to less than 15 in northern Wisconsin. The lifespan of a deer in hunted areas seldom exceeds four or five years of age but may range from eight to twelve years in unhunted populations.

Deer have excellent senses and physical abilities. A combination of smell, hearing, and sight is used to monitor their surroundings and locate potential danger. When threatened, deer can attain speeds in excess of 35 mph and can jump an eight foot high obstacle.

They are extremely adaptable in both habitat and diet selection. Although they are considered a forest edge animal, they do well in large forests as well as suburban environments. Suburban areas provide high quality foods in the form of gardens, ornamental plantings, and fertilized lawns while nearby woodlands provide daytime refuge. Urban areas are often free of hunting and natural predation and that in combination with abundant food sources results in high reproductive potential and populations that can increase quickly.

The number of deer that a particular habitat can support is called the "Biological Carrying Capacity". It is expressed in "deer per square mile of habitat". Because of ample food resources, deer in suburban areas can exceed 100 deer per square mile. This results in property damage and deer-vehicle accidents. It has been documented that when populations exceed 25-30 deer per square mile complaints from landowners and motorists increase.

The number of deer that people will accept regardless of habitat conditions is called the "Social Carrying Capacity". Quite often, the social carrying capacity is much lower than the biological one. This makes managing a deer population difficult.

A deer's home range is the area that it can find all it requires of life (food, water, shelter). Deer become very familiar with their home range and tend not to leave it. Bucks may extend their range during the rut but females tend to spend their entire lives in a relatively compact area. This can be beneficial when harvesting deer in a somewhat isolated area. Once deer are removed, it may take a number of years for new deer to migrate in and increase the population.

Since predation is very limited in a suburban setting, hunting can be the primary cause of mortality if allowed. Safe hunting and other forms of population reduction will help offset the high reproductive rates and help to control an expanding deer population.

Regulations

Deer hunting is regulated by the state of Wisconsin through the Department of Natural Resources. Municipalities such as Eau Claire can regulate the discharge of weapons (guns and bows) for safety reasons but not create or eliminate hunting seasons.

The Statewide archery season begins the second Saturday in September and runs through the first weekend in January. There are rifle and muzzleloader seasons as well but don't pertain to the any hunting within the City.

Up until the passage of 2013 Wisconsin Act 71, Eau Claire had a very restrictive archery ordinance. A landowner with 7 acres or more could apply for a permit to discharge a bow for the purpose of deer hunting in the city limits. There were approximately 7 permits issued in 2013. With Act 71 in place for the 2014 season, Eau Claire and all other municipalities across Wisconsin were required to allow more liberal archery opportunities. Eau Claire took a middle-of-the-road approach and required a 50 yard distance from buildings on another persons land and required that an elevated stand be used so any arrow would be discharged towards the ground. The number of permits increased to 48.

In addition to the required DNR archery license, Eau Claire required a city permit and a \$20 fee in 2014. This enabled the city to contact the hunters and collect

valuable harvest and public attitude information. The results of this survey are in the next section.

Unfortunately, the DNR viewed this permit as an ordinance that was more restrictive than the state law and denied a Knowles-Nelson Grant.

As of this date there has been no resolution if a free city permit will be allowed. The City should work with the DNR to resolve any differences in the administration of Act 71.

The City has had a deer feeding ban ordinance for a number of years but is difficult to enforce and has been widely ignored. With the discovery of a CWD positive deer in Eastern Eau Claire County, the DNR has now prohibited feeding and baiting in all of Eau Claire County. Hopefully, this additional regulation will help reduce the amount of feeding within the city.

If the city wanted to liberalize archery hunting on private land even more, the 50 yard distance from a neighbors building could be reduced all the way to zero. Act 71 also allows for hunting on public land. This will be covered in a later section.

2014 Hunter Survey

There were 48 bow hunting permits issued in Eau Claire. The hunter's phone number was on the application allowing them to be contacted and asked a set of questions. This is the summary of those contacts:

There was hunting in or near all the major wooded areas in the city.

97% of the hunters that applied for a city permit used them.

The number of outings by individual hunters ranged from 1 to 40.

There was a 90% harvest rate compared to 33% in rural areas.

Hunters saw as many as 20 deer at one hunting trip.

Only 2 hunters experienced problems with interference with non-hunters.

100% of the hunters felt that the hunt was worthwhile.

100% plan on hunting in 2015.

Human Dimensions

Public attitudes regarding deer differ according to personal beliefs and past experiences. Some people want to see deer in their yard on a daily basis while others would prefer to have no deer around. These differing views complicate decision making and the establishment of deer management goals.

The goal of this plan is not only to address the issue of too many deer but to educate the public on the complexities of deer management. There will have to be compromise on both ends of the spectrum in order to have a working management plan. The goal is not to eliminate deer in the city but to reduce their numbers to a more acceptable level. Some damage will occur regardless of the deer density and this needs to be understood by everyone.

A 1993 Masters Thesis by UWEC student Derrik Duchesneau titled "An Investigation of Urban Deer: Human Interactions in the Eau Claire, Wisconsin Metro Area" addressed the issue of the public's attitude towards deer in the city. The opinions were wide ranging as expected but the overall response indicated that people were "tolerant of the current level of damage" and "the deer problem is low enough that the issue has not become a major problem."

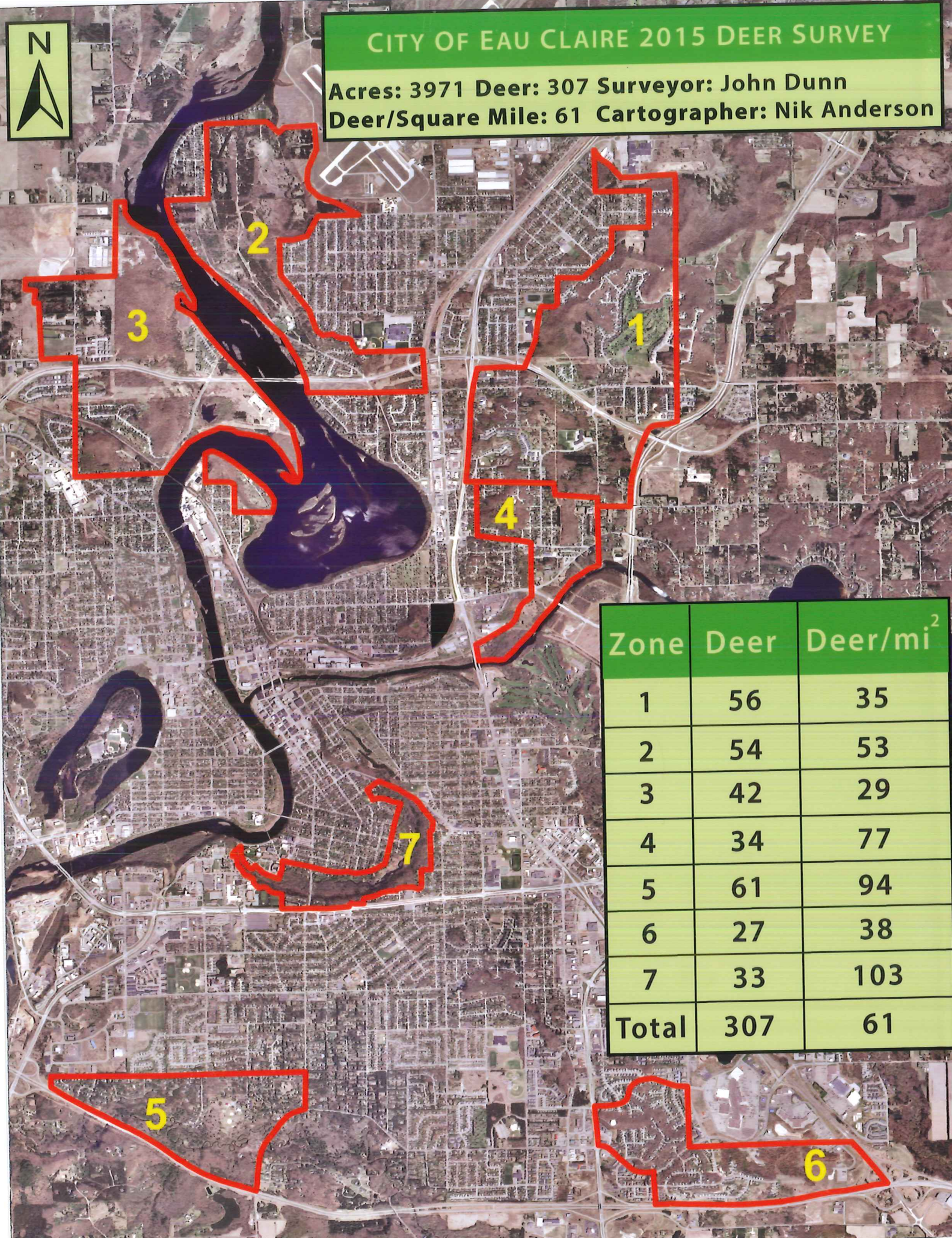
Based on helicopter surveys in 1993 and 2015, the deer herd has grown by 75%. The public attitude towards deer has shifted from tolerance to intolerance and there is a growing demand that something be done to reduce the deer damage. At the May 27, 2015 Waterways and Parks Commission meeting, 11 citizens testified in favor of continued deer population control and 1 opposed it.

HELICOPTER DEER SURVEY

	1993	2015	% change
Area 1 (Princeton Valley)	9	56	
Area 2 (City Wells)	33	54	
Area 3 (Jeffers Rd.)	22	42	
Area 4 (La Salle Hill)	52	34	
Area 5 (Grover Rd.)	59	61	
Area 6 (Oakwood Hills)	0	27	
Area 7 (Putnam Park)	0	33	
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	175	307	+75%

CITY OF EAU CLAIRE 2015 DEER SURVEY

Acres: 3971 Deer: 307 Surveyor: John Dunn
Deer/Square Mile: 61 Cartographer: Nik Anderson

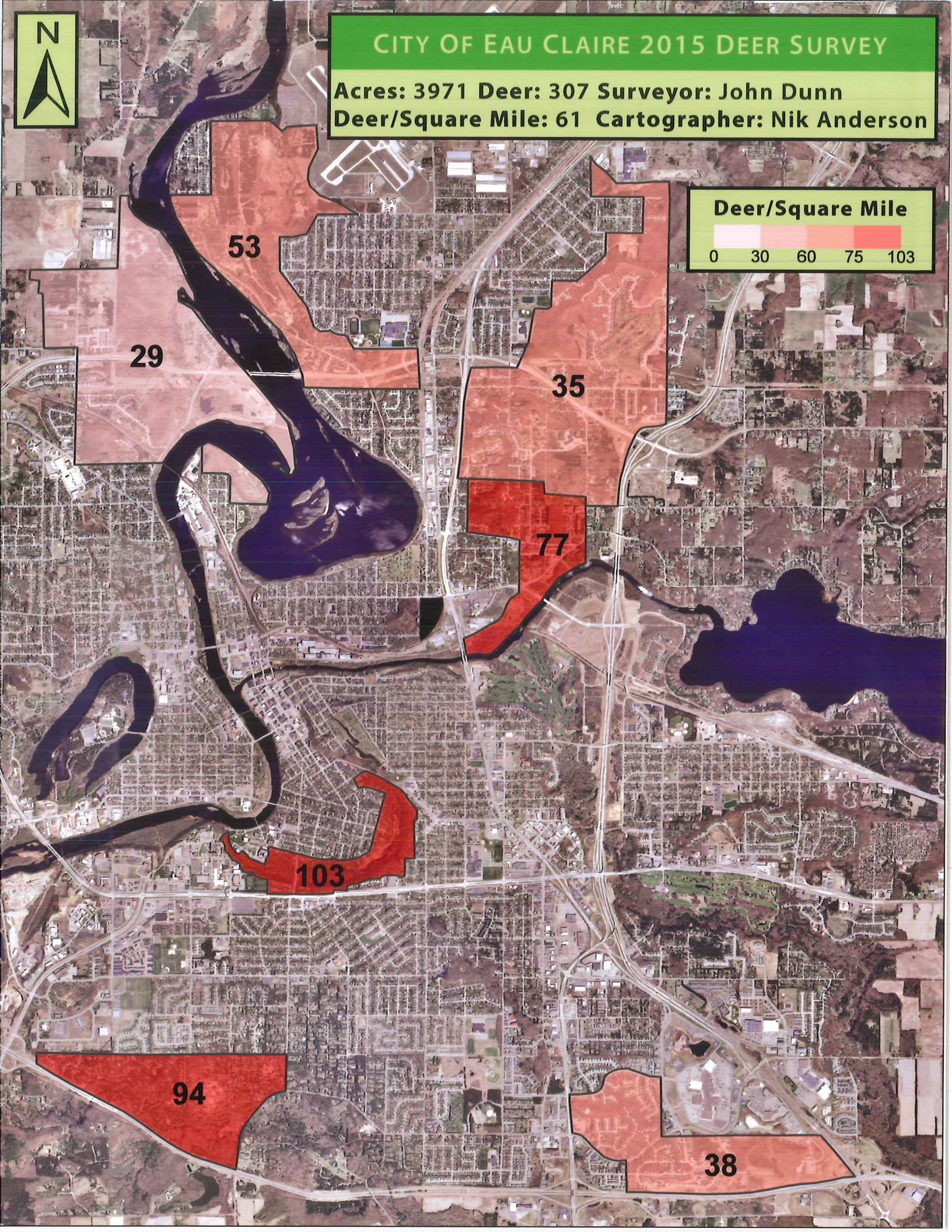


Zone	Deer	Deer/mi ²
1	56	35
2	54	53
3	42	29
4	34	77
5	61	94
6	27	38
7	33	103
Total	307	61



CITY OF EAU CLAIRE 2015 DEER SURVEY

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Eau Claire Deer Population Surveys

There are a number of ways to census a deer population but using a helicopter in the winter during snow cover conditions has proven to be one of the most accurate. Many municipalities in Southeast Wisconsin as well as the Twin Cities metro area have been using helicopters to count deer for many years. Most of these urban areas survey deer every winter that snow conditions allow in order to determine if their population control measures are working. Eau Claire was helicopter surveyed in 1993 and again in 2015.

1993 Survey

As part of his Masters Thesis, Derrik Duchesneau used a helicopter to census the deer population in Eau Claire, Altoona and portions of the surrounding Townships. Seven separate areas with large expanses of woody cover were surveyed in the Eau Claire city limits. 175 deer were counted in Eau Claire and over 200 in the areas surrounding the city. This survey provided good background information for the 2015 survey.

2015 Survey

A helicopter survey was conducted on February 26, 2015, to census the current deer population within the city. MN Helicopters Inc. from Minneapolis was contracted and John Dunn flew as the observer. Conditions were very favorable with good snow cover, light winds and sunny skies. The flight took six hours to cover city. The same 7 areas that were surveyed in 1993 were replicated in 2015. This provided a good comparison of the deer herd growth between then and now. The 2015 total count was 307 compared to 175 in 1993. This is a 75% increase. The most notable changes took place in Putnam Park and Oakwood Hills. No deer were observed in these two areas in 1993 while 33 and 27 respectively were observed in 2015. The next 3 pages illustrate the survey areas and the deer observed. Appendix A shows the 7 individual areas and where the deer were observed within those areas. Please note that many of the deer were on the edges of the woody cover and near houses where they are probably being fed or feeding on shrubbery.

It is impossible to count every deer during these surveys but using the same techniques and flying the same areas was the best way to compare changes over time. The weather conditions and ground cover, along with pilot and observer competence determine how many deer are observed in relation to the actual number present. Observation rates of 60 – 80% are typical of this type of survey. Since the actual count and not an extrapolated count was used in 1993, the same was done in 2015. What this means is that there are at least 20% more deer present than were counted.

Helicopter surveys, although not cheap, are the best way to monitor deer numbers in an urban area like Eau Claire.

Nonlethal Management Techniques

Reducing deer numbers through regulated hunting is the best way of managing a deer population but may not be acceptable or practical in some urban areas. There are a number of other techniques that have been tried across the Nation. This section will review many of these options although some are not legal in Wisconsin.

Habitat Modification

Eau Claire prides itself on the beautiful waterways and green spaces it has. If the woodland cover were to be removed, this would reduce the deer habitat and force deer to move further out into rural areas where the cover is better. This technique is not practical or acceptable and therefore not considered.

Ban on Deer Feeding

People enjoy providing food for deer and other wildlife during the winter. Supplemental feeding can enhance deer reproductive rates, encourage deer to concentrate in small areas, and make them more tolerant of people. The crowding of deer may lead to increased susceptibility to diseases like CWD.

Eau Claire has had a deer feeding ban in place for a number of years but it has been largely ignored. Because of the discovery of CWD in Eastern Eau Claire

County, the DNR has placed a feeding/baiting ban in all of the County. Hopefully, this new regulation will discourage more people from continuing their feeding activities. Public education and increased enforcement will be necessary to limit the amount of artificial deer feeding.

Some people are under the false notion that deer have to be supplementally fed in order to survive Wisconsin winters. Deer have survived winters in Wisconsin far longer than people have inhabited the state and don't require feeding.

Deer Resistant Plants

Deer are browsers and like to forage on different plants as they travel, but they do have preference for certain plant species. Some of their favorites are roses, fruits, vegetables, and ornamentals. Careful landscape plant selection may minimize damage if feeding pressure is low to moderate. Where deer densities are high, there are few plants that will escape some level of damage. There are many sources available to locate deer resistant plants by going online. The following is just a partial list that can be considered:

Aromatic herbs like garlic, chives, onion, lavender, sage, honeybush and thyme.

Catnip and spearmint, but the mint family can be invasive and needs to be kept under control.

Flowers like daffodils, chrysanthemums, oriental poppies, zinnias, and peonies.

Shrubs like chokeberry, potentillas, barbery, bottle brush, rhododendron, wild Lilac, and honeysuckle.

Native plants like black-eyed susan, purple and prairie coneflower, eastern red columbine, butterfly weed, golden dickseed, yarrows, bergamont, and spiderwort.

Trees like juniper, douglas fir, and blue spruce.

Repellents

Repellents can reduce deer damage but not totally eliminate it. Its effectiveness depends on the deer densities, available alternate forage, and the level of commitment by the landowner.

Repellents are classified as odor-based or taste-based. Odor-based repellents include products containing rotten eggs, soap, predator urine, blood meal, and other animal parts. The primary advantage of these repellents is that the deer realize the plants are treated before tasting them. Taste-based repellents such as capsaicin, hot sauce and thiram can be effective but only after the plant has been sampled and therefore damaged.

Most repellents can't be applied to edible plants but can be used on flowers and shrubs.

Human hair does not provide reliable protection in areas with moderate deer feeding pressure.

Soap bars hung from trees have been effective but labor intensive.

Trap and translocate

This was once a method used in Wisconsin. It was expensive and resulted in high mortality on over-stressed deer. Since the discovery of CWD in Wisconsin, this method has not been allowed.

Fencing

Fencing is the most reliable non-lethal method to eliminate deer damage but is expensive, unsightly and impractical in many settings. Electric fences tend to be cheaper but require a power source and there is a concern about uninformed people coming in contact with it. Woven wire fences need to be eight to nine feet high to be 100% effective. Individual trees can have tubes or fences placed around them but again this is labor intensive and unsightly.

There is an eight foot polypropylene mesh fence available that is nearly invisible and less expensive to install. It is suggested that streamers be hung from it to make it more visible to deer so they don't run into it and knock it down.

Water Sprinklers

A motion activated sprinkler is available. This has potential but has not been widely tested. If used, it should be on a timer or turned off during the day as you don't surprise the mailman or an unexpected visitor.

Fertility Control

The possibility of altering fertility in wild animals has existed since the 1980's. The National Wildlife Research Center has conducted research with immuno-contraceptives on white-tail deer at the National Zoo in Washington DC. New Jersey, Connecticut, and Maryland have also conducted research in semi-enclosed urban areas. The Humane Society of the United States runs a deer birth control program but it is experimental only.

At the present time, research has shown that it will take several years of birth control to reduce a large deer population, it is difficult to administer in a free roaming herd, and can cost up to \$1,000 per deer. Currently, no community in Wisconsin is using this method and has not been authorized by the DNR.

Population Reduction Options

Trap and Euthanize

There are a variety of traps that can be used to capture deer alive however this method is inefficient and expensive. If the deer is chemically euthanized, the meat cannot be consumed by humans. The end result is a dead deer that has been greatly stressed prior to death.

Sharpshooting

Many communities across the Nation and Wisconsin have hired sharpshooters to reduce deer numbers. Altoona employed a sharpshooting company out of southern Wisconsin in the winters of 2000, 2001, and 2002. A total of 116 deer were removed during those three removal efforts.

Typically, isolated sites are baited for several days and elevated shooting stands are erected. The site is posted with no entry markings and the removal effort takes place at dusk. There are usually one to four shooters involved. The harvested deer are removed to a designated facility where they are dressed out. In most cases the carcasses are taken to a meat locker where they are processed and the meat taken to a local food pantry for distribution to the public. Feeding and baiting is now restricted in Eau Claire County so an exemption to this regulation will be necessary. The cost of this option will most likely be in the \$150 per deer range. A potential grant from the DNR could help cover the cost of this option. This is the most effective way to remove deer in a short period of time.

Archery Hunting

Currently, there is archery hunting on private land in the City using the guidelines of 2013 Wisconsin Act 71. This will continue unless the State Legislature chooses to modify/rescind it. Act 71 was already covered in the Regulations section.

Archery hunting could be extended to public property as well. The City Wells area is a good example of a large block of city owned woodland that would lend itself to additional hunting opportunities. Either a designated area could be posted and hunting could take place within that area for an extended period of time, or a larger area of the Wells could be closed to the public and a short term hunt could take place.

Putnam Park is another location for some form of deer removal effort but approval would have to come from the UWEC Putnam Park Commission.

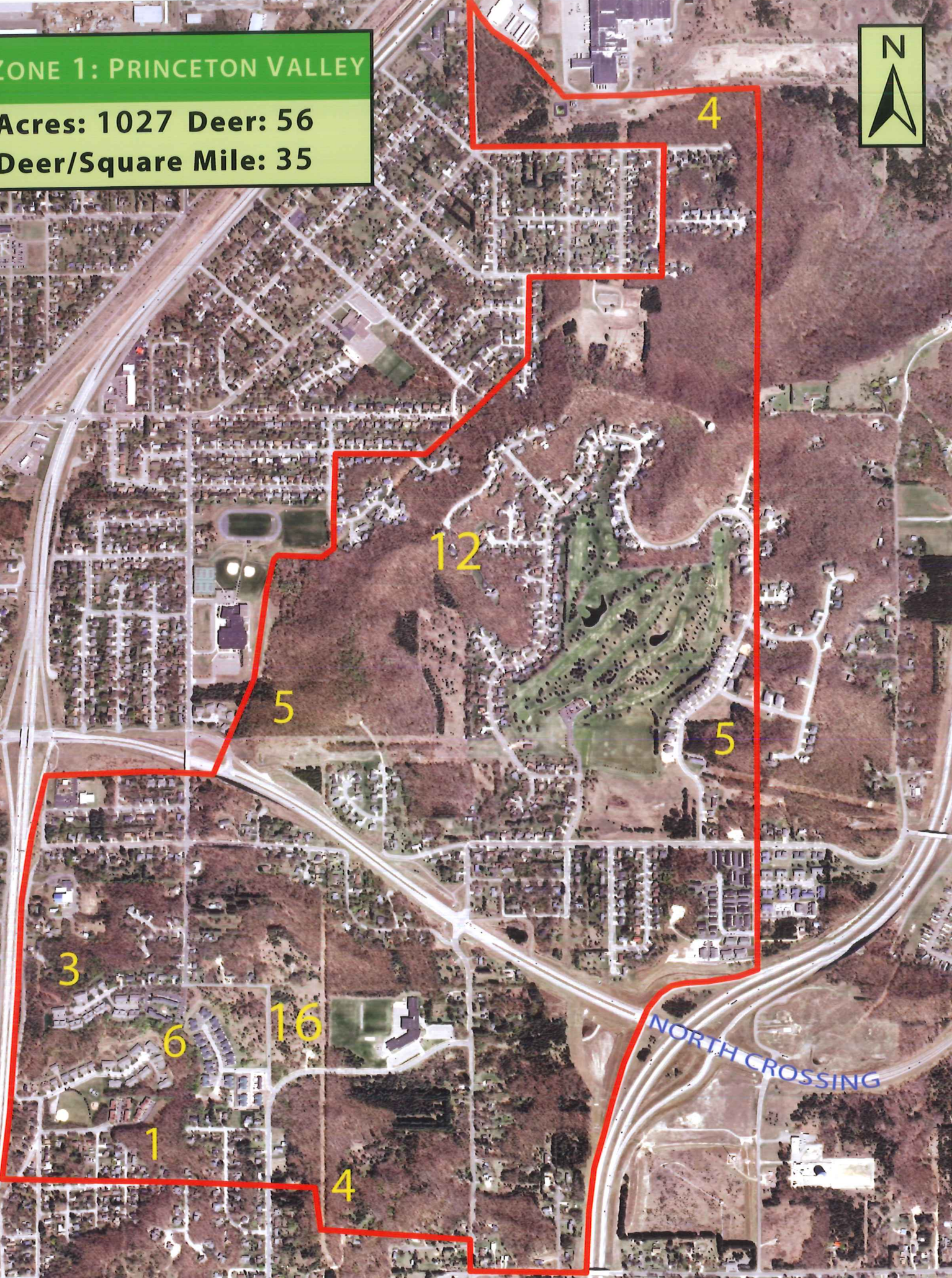
Recommendations

- 1.** The City should continue to communicate with the DNR to get clarification if a city permit will be acceptable under the guidelines of 2013 Wisconsin Act 71. This will provide the opportunity to collect detailed harvest information and hunt related issues.
- 2.** The City should continue discussions with the local DNR Wildlife Biologist about obtaining additional antlerless permits for distribution to interested archery hunters. This can potentially be accomplished through the wildlife nuisance program.
- 3.** The City should consider using the City Wells as a test site for a winter sharpshooting effort.
- 4.** The City should consider using the City Wells as a location for public archery hunting either by designating a limited area for an extended hunt or choosing a larger area for a short hunt.
- 5.** The City should contact the UWEC Putnam Park Commission about a sharpshooting effort or archery hunt in the Park.
- 6.** The City should continue discussions with the local Wildlife Biologist and County Deer Advisory Committee about creating an Eau Claire Metro Deer Management Subunit. This will be a 2-3 year process. This will provide additional antlerless permits, and create a longer hunting season. It will also provide harvest numbers but not in the detail that a City permit will.
- 7.** The City should collect information about the DNR's Deer Management Assistance Program (DMAP). This program is a cooperative effort between landowners and the DNR to develop a habitat and herd control plan. There will be additional antlerless permits available through DMAP.
- 8.** The City should apply for an Urban Wildlife Abatement and Control Grant by the December 1st deadline.
- 9.** The City should consider conducting annual or biennial helicopter surveys to evaluate herd reduction efforts. Landowner complaints and deer-vehicle collision numbers should be collected as an additional way of monitoring the herd size.
- 10.** The City should expand the deer feeding ban information effort. Hopefully, additional public education will encourage people to voluntarily discontinue feeding. If not, stricter enforcement may be necessary.

APPENDIX A

ZONE 1: PRINCETON VALLEY

**Acres: 1027 Deer: 56
Deer/Square Mile: 35**





ZONE 2: CITY WELLS

Acres: 657 Deer: 54
Deer/Square Mile: 53



ZONE 3: JEFFERS ROAD

Acres: 930 Deer: 42
Deer/Square Mile: 29

CHIPPEWA RIVER

5

4

7

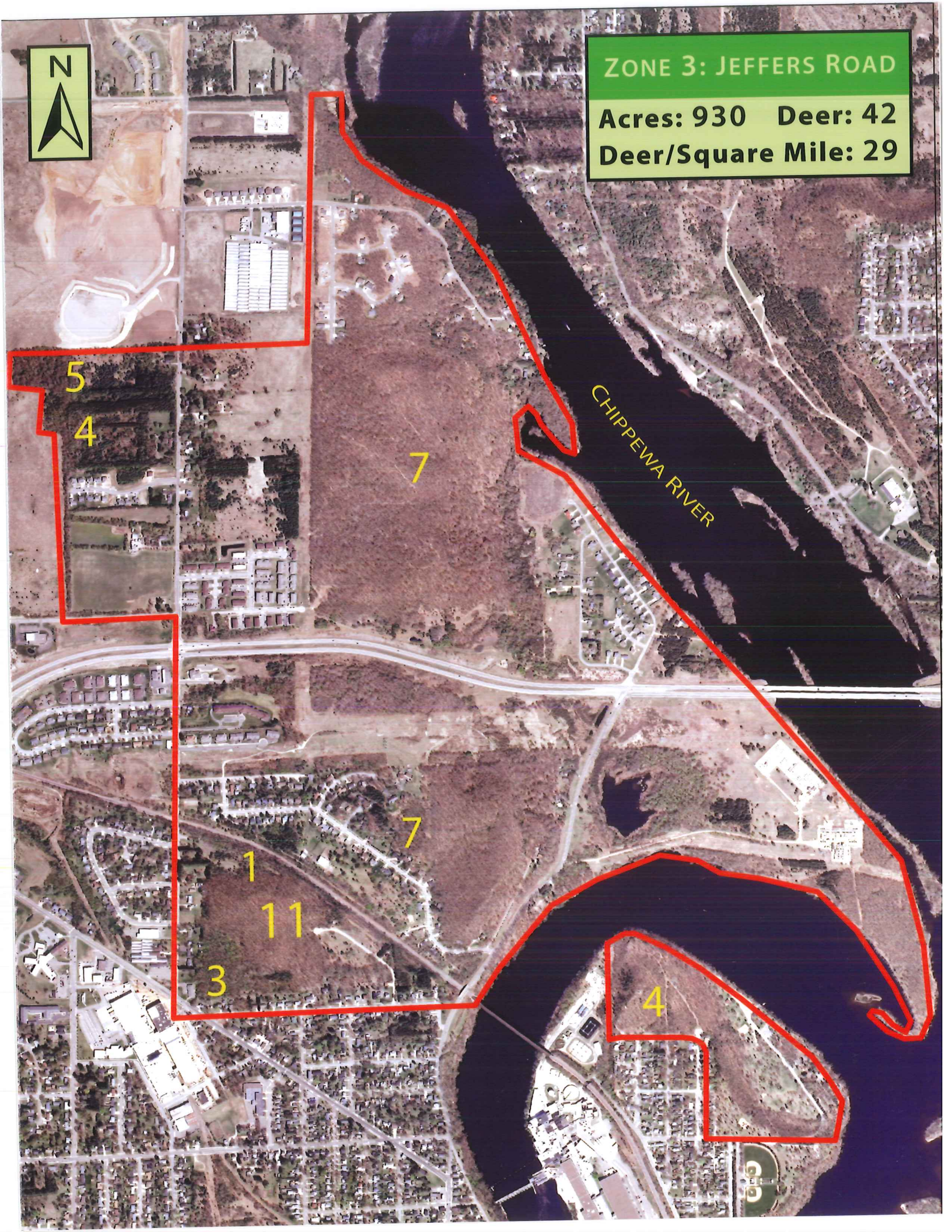
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1

11

3

4





3

5

20

6

EAU CLAIRE RIVER

ZONE 4: LaSalle

Acres: 284 Deer: 34

Deer/Square Mile: 77



ZONE 5: LOWES CREEK
Acres: 416 **Deer: 61**
Deer/Square Mile: 94



INTERSTATE 94

10

3

10

4

ZONE 6: OAKWOOD
Acres: 451 Deer: 27
Deer/Square Mile: 38

ZONE 7: PUTNAM

Acres: 206 Deer: 33

Deer/Square Mile: 103

CHIPPEWA RIVER

3

6

6

9

5

4



APPENDIX B

**CITY OF EAU CLAIRE
WATERWAYS AND PARKS COMMISSION**

May 27, 2015

Members Present: Bob Schraufnagel, Jeff Guettinger, Allyson Gommer, Joshua Miller, Tom Fiedler, Susan McLeod, Bob Von Haden

Members Absent: Diane Paulsrud, Gene Johnson, Casey Knollmaier, Rick Kayser, Andrew Werthmann

The meeting was chaired by Bob Schraufnagel and called to order at 7:00 p.m.

Minutes: The minutes of the April 22, 2015, meeting were approved as written.

Business Agenda.

A. Recommendation on Special Events.

1. **St. Patrick Parish 150th Anniversary.** The Commission reviewed the St. Patrick Parish 150th Anniversary special event to be held at and sponsored by St. Patrick's Parish on June 21st. The event will include the closure of the 300 block of Fulton Street in front of the church.

ACTION TAKEN: Tom Fiedler moved to recommend approval of the event. Jeff Guettinger seconded the motion. All votes were in favor. Motion carried.

2. **Team Hope Walk.** The Commission reviewed the Team Hope Walk special event to be held at Carson Park in the Pine Pavilion on August 22nd. The event is sponsored by the Huntington's Disease Society of America.

ACTION TAKEN: Joshua Miller moved to recommend approval of the special event. Bob Von Haden seconded the motion. All votes were in favor. Motion carried.

B. Report and Public Discussion on the Deer Management Program. John Dunn presented the deer inventory. He introduced Nik Anderson, from UWEC who assisted him with the GPS and mapping. He reported that the helicopter survey could have missed 20% of the population. He addressed questions and indicated that there were no deer counted in Putnam Park in 1993 due the type of helicopter that was used then was larger and faster. They surveyed only certain areas based on likely habitat for deer. There was a 75% increase in the population since 1993. Deer in urban areas should be 10-15 per square mile and in hunting areas 30 per square mile.

The hunter survey shows that the hunt didn't come close to keeping the herd constant or reduce it. Bow or crossbow only is allowed in the city.

Question asking if one method of deer hunting in other communities is more successful than others?

John Eslinger – 3022 Riverview Drive stated he has lost many garden and landscape plants due to deer. He hunted off his garage roof and shot three deer.

Janet Meyer – 710 Gilbert Avenue near Putnam Park stated that the deer ate all the yews in her yard.

Sharon Hildebrand – 426 Summit Avenue commented that the commercial raspberry grower produced no raspberries this year. She suggests being more aggressive by eliminating the fee for the hunting permits.

Mary Kay Walter – 1909 Walter Avenue indicated that she runs in Putnam Park and that the big buck and doe in their yard eat all her perennials. She would also like to see more aggressive reduction of herd.

Randy Hill – 811 Garden Street would like to see city hunting open to bear.

Greg Collins – 3390 Collin Road indicated that he hunts on city land and is waiting for Bullwinkle (162 lb 9 point buck). Mary Jo Cohen – 1703 Drummond (Presto) won't let people hunt on her property at Presto.

Charles Halblieb – 3208 Riverview Drive states that he walks the Wells every day and has seen 20 deer. He no longer has a garden due to deer. He would like to see the public be allowed to hunt city property.

Peter Hable – 1323 S Farwell commented that everything needs to be fenced and feels that is a quality of life issue. He said there are too many deer in Putnam Park.

Dan Skoug – 2111 Bordeaux Ct. suggests letting more people know that they can deer hunt.

Dale Miller – 2209 33rd Avenue listed several of his concerns and is aware that the deer population has no other place to go. He had tried to get a permit and the DNR stated there were none available, he found four dead deer with arrows in them this past season, and has concerns with lymes disease.

Mike Arnenson – 210 Crescent Avenue advised that he is a former DNR Parks employee at Lake Wissota. He has never been in a car accident with a deer. His suggestions include using numbers for surveys vs percentages, and he suggests we don't participate in surveys as they are skewed. He stated that the deer don't bother him and that the coyote hunt the deer in his neighborhood. The deer are being driven into the city by developments.

David Zielke – 2619 Jeanne Lane is the chair of the Eau Claire Deer Council and worked for the Eau Claire Police Department for years. He stated that there are too many deer in some parts of the city and suggests allowing archery hunting in some areas. The Eau Claire Deer Council helps set quota for urban deer hunting.

C. The 2015 Special Events List was reviewed.

D. The Directors Report was reviewed.

Bob VonHaden and Jeff Guettinger moved to adjourn at 8:55 pm.

Phil Fieber by RJD

Submitted by,
Phil Fieber