DEER MANAGEMENT IMPLEMENTATION PLAN

September 2008

DEER MANAGEMENT OPTIONS

Introduction

The deer herd in Rochester Hills has become more concentrated over the years due to several factors. As the city developed, the amount of natural habitat has diminished causing more deer to move to smaller parcels of undeveloped land and into subdivision open spaces. With a citywide ordinance banning hunting enacted in 1976, population control was left to natural causes and, unfortunately, cars. Deer have few natural predators in Rochester Hills. While coyotes will bring down a sick deer or a young fawn, there are no predators for healthy adult deer. Many residents in our community tell us we have reached a point where the number of deer has become a hazard to motorists by causing numerous deer-vehicle collisions and a nuisance to residents by causing extensive property damage.

The biological carrying capacity for deer is the number of healthy deer that can be supported by the habitat without being detrimental to or degrading that habitat. In this capacity, according to the DNR, Rochester Hills has more deer than our habitat can support. The deer are being sustained, in part, because people feed them corn, carrots, sugar beets, mineral blocks, etc., or unintentionally feed them by landscaping with plants that deer like to feed on. In addition, it is obvious to us by the regular, year-round complaints we receive at the EEC that the city has reached its cultural carrying capacity as well where many residents feel they can no longer peacefully coexist with the deer because of the problems that they cause.

Deer overpopulation results in competition for limited food resources and can alter plant species composition and abundance causing a reduction in plant diversity. These changes have a negative impact on other wildlife species, which also depend on these healthy vegetative systems for food and cover. Deer overpopulation also leads to a decline in deer herd health causing decreased body weights, lowered winter survival, increased parasitism, and increased prevalence of disease.

With the absence of natural predators and hunting, if City Council wishes to adequately address this issue, a deer management plan needs to be developed for our community. The objective of this report is to outline the various deer management options, provide the pros and cons of each, and potential recommendations for the steps the community can take to decrease our deer population.

Option #1
ALLOW NATURE TO TAKE ITS COURSE

This is a “do nothing” approach to the deer situation. Nature and the habitat would determine how many deer it can support with its vegetation and predators. Natural habitat includes available land parcels with adequate food, water, cover, and living space to ensure their healthy survival.

PROS

- There would be no additional cost to the city.
- There would be no additional city involvement for staff members.
- It satisfies the pro-deer contingent that prefers seeing the wildlife.

CONS

- It does not reduce the deer population.
- Deer-vehicle collisions will continue and could potentially increase.
- Degradation of the habitat will increase.
- Doesn’t alleviate the property damage.

Option #2
USE YARD FENCING AND REPELLANTS

Yard fencing and repellents can only address site-specific problems. Woven wire fences that are six or seven feet high are adequate deterrents for most homeowners, but may not provide complete exclusion. It should be noted that effective repellent programs require frequent applications because rapidly growing shoots quickly outgrow protection and repellents degrade rapidly due to weather.

PROS:

- Fencing and repellants are site specific and would help homeowners alleviate the deer problems on their property.
- Fences can be an effective deterrent with proper methods and/or design.
- There would be negligible city involvement and would not require a change to our ordinances.
- There would be little cost to the city to provide residents with information on fencing and repellants.
- It is an environmentally safe option – not hazardous to nature or harmful to the environment.

CONS:

- Fencing and repellents would be site specific and wouldn’t do anything citywide to reduce the deer population.

- It puts the responsibility on the homeowner to set aside time to frequently apply the costly repellants for them to be effective.
- Spray repellents can only be applied effectively during mild weather, so their value during winter months is restricted.
- Fences could cost $6 to $8 per foot to install, making them cost prohibitive for many residents.
- Many people would find the fencing to be unsightly because it would need to be a high fence, an angled fence, or a double-row fence to be effective.
- Many deed restrictions or homeowners' association restrictions prohibit residents from putting in fencing at all or fencing that is more restrictive than the city's ordinances.

Option #3

USE NON-LETHAL METHODS TO REDUCE DEER-VEHICLE ACCIDENTS

This would include roadside clearing and high fencing along roads that have been identified as areas where large numbers of deer-vehicle collisions occur; better signage warning drivers of the deer danger; and the use of reflectors or mirrored prisms that are made specifically for an artificial barrier that could potentially reduce the number of deer-vehicle collisions.

PROS:

- It could reduce the number of deer-vehicle collisions in some places.
- The landowners or agencies responsible would bear the cost of installation and maintenance.
- Current studies on newer technologies and techniques are encouraging.

CONS:

- It doesn't reduce the deer population directly.
- It would be expensive, around $7,000 - $10,000 per mile for fencing and close to $30,000 per mile for a prism system. Money would also have to be budgeted annually for labor and maintenance.
- Prisms have not been proven to be 100% effective in all situations.
- Passive deer crossing signs tend to become less effective over time as people grow accustomed to them, and eventually ignore them.
- The same is true for the deer. Once accustomed to these measures, they would have little long-term effect on containing the deer herd.

Option #4

ENACT A CITY-REGULATED FEEDING BAN

This would require the city to pass an ordinance to prevent the feeding of wild animals other than birds.

PROS:

- Limited involvement for city employees.
- May reduce property damage because deer will not be drawn to these feeders and cause damage to private property along the way.
- Could cause some reduction in the population since the deer would no longer be able to get the food from these supplemental feeding stations.
- There is a correlation on the health of the herd and the fawn birth rate based on the availability of food – less food, fewer births.

CONS:

- There would be no immediate reduction in the deer population.
- A feeding ban would be a hard ordinance to regulate and would be primarily complaint driven or self-regulated.
- It would require a change in the city's ordinance.

Option #5

TRAP AND TRANSFER / CONTRACEPTIVES

Trapping and relocating deer are complex, impractical, and prohibitively expensive operations with limited value in managing free-ranging deer. Deer are susceptible to traumatic injury during handling, and moving deer has the potential for spreading disease. Contraceptive use for fertility control of deer herds have not been approved by the FDA, are impractical to administer, and it is unknown if the target animals would be safe for human consumption. These are some of the reasons trapping and the use of contraceptives are **not allowed** by the Michigan DNR.

Option #6

SHARPSHOOTERS

A typical sharpshooting program involves the systematic culling of deer by skilled marksmen who are highly trained professionals. Although expensive (estimated at $250 - $350 per deer) relative to regulated hunting, sharpshooting programs may be useful in reducing the size of the local deer population where there is insufficient undeveloped land or interest to support traditional regulated hunting.

PROS:

- There would be an immediate reduction to the deer population.
- Venison could be donated to food banks.
- It could reduce property damage and/or deer-vehicle collisions.
- It may reduce the number of deer complaints the city receives.
- It would be easier to manage having DNR-issued permits for select areas.

CONS:

- It is an expensive option ($100,000 minimum to be effective in reducing the deer population).
- It would require significant city involvement for bidding out the process, securing the sites, and monitoring the operation.
- It would require a change in our city's ordinances that currently ban the discharge of firearms in the city.
- There could be a serious potential safety problem that might increase the city's liability and would need to be discussed with our risk management consultant.
- Because of the city's largely developed areas, only sites in a small portion of the city would be accessible for this type of operation. Deer would not be able to be shot in most of the subdivisions that are encountering deer damage problems.

Option #7
REGULATED BOW HUNTING

Regulated bow hunting has proven to be an effective deer population management tool. It is the most efficient, safe, and least expensive technique for removing deer where traditional firearm hunting cannot be utilized. Research and management experience has shown regulated hunting to be an ecologically sound, socially beneficial, and fiscally responsible method of managing deer populations.

ON PRIVATE PROPERTY

PROS:

- Would reduce the city's deer population.
- Fewer deer would reduce property damage and deer-vehicle collisions.
- There would be a behavioral change in the deer causing them to fear humans.
- Regulations are already in effect by the MDNR so city involvement would be limited.
- Individual homeowners and homeowner associations would still have some control because the safety zone is 450 feet from occupied dwellings.
- Homeowners have the option to grant or deny their permission for hunting closer to their dwelling, and homeowners associations can grant or deny permission for hunting in their commons areas.

CONS:

- It would require an ordinance moratorium on hunting for a limited trial basis and further evaluation.
- It could increase conflicts with the pro-deer contingency.
- It would increase the potential for staff to be involved with complaints, inquiries, and responses for wounded or dead deer in the yards of our

residents. This is in response to the known possibility that a deer wounded by an arrow can travel great distances before it subsides.
- Trespassing and poaching violations could likely occur.

ON CITY PROPERTY

PROS:
- It would reduce the city's deer population.
- It may reduce the number of deer-vehicle collisions.
- It could reduce the deer damage in surrounding neighborhoods.

CONS:
- There would be serious safety issues in controlling 100% of the access to selected areas allowed.
- It would pose increased liability to the city.
- Increased city staff and OCSO time would be required to secure the property when hunting is taking place.
- It would require a change in the city's ordinances and the longstanding park policies against hunting in our parks.
- The potential for violators could increase, and patrol would need to be dramatically increased to identify any violations occurring.

POTENTIAL RECOMMENDATIONS FOR COUNCIL CONSIDERATION

The following are steps the city could take to help manage the deer population in our community. There are some costs associated with each action.

1. Enact a citywide wildlife feeding ban ordinance to eliminate feeding stations for deer. This could deter deer from grazing on neighborhood vegetation on their way to these feeding stations and reduce the supplemental food supply that encourages population increases.
2. Provide an increased educational component on fencing options and repellants for homeowners to help them protect their property from deer damage. This could include packets of information, website information, programs at the EEC or at homeowner association meetings, newspaper articles, etc.
3. Make improvements to the city's signage warning motorists of deer crossing areas that could potentially reduce deer-vehicle collisions.
4. Impose a 3-year moratorium beginning October 1, 2008, on our bow-hunting ordinance and follow the MDNR guidelines **for private property only**. This could be used on a trial basis to determine its effectiveness. No hunting would be allowed on city property.
5. Continue to conduct a yearly flyover to count the deer population and evaluate the effectiveness of the programs.

6. Continue to monitor the deer-vehicle collisions in our community by using data from SEMCOG.

FUTURE CONSIDERATIONS REQUIRING FUNDING

The following considerations are more costly and would require significant budgeted funds to implement. These methods would require additional research to determine their desirability and effectiveness over time.

1. Use roadside reflectors or mirrors to deter deer.
2. Clear roadsides of vegetation to keep deer away from the roadways.
3. Install exclusionary fencing and wildlife crossings in high-risk areas.
4. Hire sharpshooters for an immediate reduction in the deer population.

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ADDITIONAL CONSIDERATION – SHARPSHOOTING

A recent proposal offering assistance from the Oakland County Sheriff's Office (OCSO) to remove deer at minimal cost to the city is being considered. A sharpshooting program, when successful, is an effective means of immediately removing deer from the population.

Safety Issues

- The number one safety issue when firearms are involved is that the maximum range of a bullet can be miles. A ricochet or accidental discharge could potentially cause damage or injury to people or property outside the target area.
- These risks are minimized by the use of trained officers from the OCSO. These risks are further minimized by the limited number of areas that have both the requisite acreage and a deer problem (see attached map).
- In Michigan, out-of-season permits are typically issued in January and February when the elimination of casual users at the sites can most easily be accomplished. It is anticipated that the sharpshooting will be done after dark using the latest technology.
- Any sharpshooting program will be developed and reviewed in conjunction with the Michigan Department of Natural Resources (DNR) Wildlife and Law Enforcement Divisions in cooperation with the OCSO.

Costs

- For this trial year, there will be no additional cost to the City of Rochester Hills from the DNR or the OCSO.
- Implementation of this plan will require additional city staff time.

Effects on Herd Reduction

When properly implemented, sharpshooting is an effective, immediate reduction to the deer population. However, to sustain this reduction, annual culling of the herd is necessary or the population will quickly rebound to previous levels.

City Commitment

- Use of city property and staff as needed to implement this program.
- Notification of residents close to the reduction zones.
- Defend program to residents and special interest groups opposed to sharpshooting.

At this time the city has requested a one-year trial program with the OCSO and will monitor it's effectiveness for future consideration.