Memorandum
Joint City of Bloomington-Monroe County Deer Task Force
26 September 2011, 5:30 PM
Council Chambers (#115)
City Hall, 401 N. Morton St.

Present: Task Force Members: Keith Clay, Stefano Fiorini, Bob Foyut, Judith Granbois, Josh Griffin (IDNR), Sarah Hayes, Iris Kiesling, Thomas Moore, Laurie Ringquist and Dave Rollo.
Staff: Stacy Jane Rhoads
Public: Dave Parkhurst, Mike Litwin and WTIU

I. Welcome: Rollo welcomed all to the eleventh meeting of the Task Force.

II. Approval of Minutes: August 18, 2011. No changes.

III. Public Comment: None

IV. Report from Task Force Members: Keith Clay mentioned that the H-T ran the story about deer impact at the Griffy Nature Preserve. He said that he is sorry that the newspaper did not make mention that the article was endorsed by the Task Force. Foyut said that the H-T later made the correction.

- Granbois mentioned that the article was excellent.

V. Management Matrix
At its last meeting, the group decided that a pragmatic way to start discussing recommendations is to first filter, and come to agreement, on filtering each of the common management strategies through the lenses of the Task Force's criteria. Ringquist sent out a template that lists each commonly-discussed deer management strategy. Each Task Force member was asked to assign each strategy a numeric ranking for its: effectiveness, humaneness, legality, safety, major pros and major cons. Ranking ranged from 0-4, with 4 being the highest score. So far, five Task Force members have submitted their rankings to Rhoads. Rhoads compiled all ranking and comments. With five rankings in, the group discussed the matrix as follows. Those who have not submitted rankings yet are encouraged to submit rankings by the next meeting.

Management Strategy	Description	Cost	Effectiveness							Humaneness							Legality							Safety							Major Pros	Major Cons
Member Ranking			1	2	3	4	5		AV	1	2	3	4	5		AV	1	2	3	4	5		AV	1	2	3	4	5		AV		
Feeding Ban	Ordinance changes to prohibit supplemental feeding	No cost to impose; some cost to enforce and fines for those who violate.	2	1	2	1	1		1.4	4	4	4	4	4		4	4	ord change	4	4	4		4	4	4	4	4	4		4	1-easy to implement; 2-humane, low cost; 5-non-controversial	1- easy to ignore; 2-probably little practical effect on deer population; 3-how enforced?; 5-enforcement difficulty; deer will shift to other areas
Fencing	Recommendations for effective deer fencing; possible ordinance changes to allow more/taller fences	Cost paid by individual property owners who choose to install.	3	3	2 to 4, depending on height	3	3		3	4	4	4	4	4		4	4	ord change	4, if ord can be changed	4	4		4	3	4		4	4		3.75	1- works pretty well; 2-humane, no cost to government; 5 - proven effective	1- not all can afford; not good for large areas; 2-protects individual property, but moves the problem somewhere else; 3- cost to homeowner; 5 - moves deer to other areas; unsightly

Management Strategy	Description	Cost	Effectiveness							Humaneness							Legality							Safety							Major Pros	Major Cons
Deterrents & Repellents	Recommendations for use of lights, sprinklers, noisemakers and chemical repellants	Cost paid by individual property owners who choose to utilize.	2	3	2 to 3	2	1		2.1	3	4	4	4	4		3.8	4	4		4	4		4	3	4		4	4		3.75	1- non-lethal; 2- humane, no cost to government; 5- non-lethal	1-costs money and must be repeated often; 2- protects individual property, but moves the problem somewhere else; 3- must be reapplied, rotated; losses effectiveness; cost to homeowner; 5- routes deer to other yards
Trap & Relocate (not approved by IDNR)	Deer are trapped in problem areas and released elsewhere.	$400/deer	3	1		1	0		1.3	1	0		1	0		0.5	4	0		1	1		1.5	2	3		2	1		2	1- it works; 2- none	1- expensive and major effort; low humane; 2- not humane or effective, expensive, no place to relocate; 3 - cost; no suitable sites for relation; IDNR doe not approve, so why include this as an option?; 5- just moves problem somewhere else

Management Strategy	Description	Cost	Effectiveness							Humaneness							Legality							Safety							Major Pros	Major Cons
Trap & Euthanize	Deer are trapped in problem areas and euthanized at the site of the trap.	$300/deer	3	2		3	3		2.2	1	2	1	1	1		1.2	4			2	0		2	2	3		2	0		1.4	1- nearly 100% effective; 2- can be used closer to homes than other methods; 5- reduces herd	1- miss many deer; cruel; 2- concerns about humaneness, cost and effectiveness 3- cost; stress to deer; 5- traumatic for deer
Reintroduction of Predators (not approved by IDNR)	Reintroduce predator species such as wolves	??	4	0		2	3		2.3	2	4		4	1		2.75		0		1	0		0.33	3	1		2	0		1.2	1- has worked for a million years; 2- lets nature take its course; 5- would achieve population "balance"	1- public opposition; 2- no control over safety and effectiveness; 3- IDNR does not approve; why include?; 5- danger for humans
Contraception	Deer are injected with or allowed to eat a fertility control product.	$600-$800/deer	2	1	1	1	2		1.4	3	4	1	4	4		3.2	4			4	1		3	3	4		3or4	2		3.125	1- compromise; 2- humaneness; 5- may reduce conception	1- hard to implement; not real effective; 2- costly and not very effective; 3 - questionable approval by IDNR, depending on agent; introduction of possibly harmful effects into food chain; low effectiveness when untreated deer can migrate into treatment area; cost;

																																stress on deer; 5- difficult to effectively dose; unsafe
Sterilization	Deer are trapped and sterilized via a surgical procedure.	$800-$1,000/deer	3	1		1	4		2.3	2	2	1	3	1		1.8	4			4	2		3.33	3	3		2	2		2.5	1- no need for re-treatment; 2- none; 5- halts conception	1- have to trap and operate; 2- costly and not very effective, concerns about humaneness; 3- prohibitive cost; 5- prohibitive cost, trauma to deer
Sharpshooting	Deer are lured with bait to a specific area deemed safe and removed by professional sharpshooters with either firearms or bows.	$200-$350/deer	3	3	4	4	4		3.6	3	3	4	2	4		3.2	4		4	3	3		3.5	3	3	4	3	3		3.2	1- quick & painless; can be effective, relatively safe and humane; 2- can be effective, relatively safe and humane; 3- no cost to public; meat could be donated to food pantries, etc.	1- reluctance to engage in mass slaughter; 2- expensive and time consuming; 3- access for hunters may be limited; 5- must by done by experts; costly

Management Strategy	Description	Cost	Effectiveness							Humaneness							Legality							Safety							Major Pros	Major Cons
Regulated Hunting	Deer are removed from the population by recreational hunters in accordance with IDNR regulations. Includes hunting with firearms and/or bows.	Cost for license paid by individual hunters.	3	2	4	2	3		2.8	2	3	3	1	3		2.4	4	4	4	4	3		3.8	3	3	2	3	3		2.8	1- extension of accepted activity; 2- relatively safe and humane; 5 - could be effective if hunter participate	1- small fraction killed; doesn't work in urban areas; 2- not very effective at impacting urban deer population with current hunting regulations; 5 - requires care in places such as Griffy; not practical in residential areas

Management Strategy	Description	Cost	Effectiveness							Humaneness							Legality							Safety							Major Pros	Major Cons
Managed Hunt	Deer are removed from the population by recreational hunters in accordance with IDNR regulations but run by a "hunt master" with specific guidelines such as targeted locations, a specific number of deer to be harvested, etc. Includes hunting with firearms and/or bows.	Cost for license paid by individual hunters.	3	3		3	4		3.3	2	3		1	3		2.25	4			4	3		3.667	3	3		2	4		2.4	1- Like IDNR park hunts; 2- relatively safe and humane; could be effective if targeted; 5- safer than regulated hunting	1-less effective in urban areas; 2- May need to be organized for multiple locations and repeated more than one time; not effective in residential areas; 5- not effective in residential areas. s.

Discussion of Matrix to Date

Rollo suggested that the group start by addressing those management strategies the group would like to eliminate.

1. <u>Reintroduction of Predators</u>:
Effectiveness: 2.3; Humaneness: 2.75; Legality: .33 and Safety 1.2.

Clay said he would like to state a minority opinion. He thinks that the reintroduction of predators is the only long-term solution. Coyotes are already present and mountain lions are already showing up in some counties.

Griffin said that to control the deer herd with mountain lions, the population of mountain lions would have to be so high, it would present safety issues for humans. Mountain lions would target people on walking paths, trails, etc. There are theories that the lions will eventually follow the population of deer here, but, if that is true, it would take decades and decades for the cats to make any difference in the size of the deer herd. This has to do with the biology of large cats. When lions are old enough to be on their own, the dominant males push the young cats out, so young males disperse. All the mountain lions east of their range recently, are young cats.

Griffin said that even if we did have mountain lions in the area, which we do not, it would be decades and decades.

Clay said that his point as a biologist is that we are living in a disrupted ecosystem. When looking at a system in balance, predators are a key part of that balance.

Griffin said that coyotes will take fawns, but coyotes are generalists. They will eat what is easiest. A big part of their diet is domestic animals.
► Rollo asked if group felt that this was not worthy of further consideration. The group indicated assent. Rollo said that if someone feels like they need a voice vote on these, speak up.

TRAP & RELOCATE
Effectiveness: 1.3; Humaneness: .5; Legality: 1.5 and Safety 2.

Rollo said that the capture myopathy kills most of the deer.

Griffin said there is no place to take the deer.

Foyut said that there may be danger to people too; it could become a deer rodeo situation.

Griffin said that deer that deer which are trapped and relocated tend to migrate back into urban areas and people's yards, so there are safety and danger issues involved.

Granbois asked if IDNR receives any requests for deer – "please send me your deer." Griffin said that he received one request many years ago; otherwise, he has not received these requests.

► Rollo asked if group felt that this was not worthy of further consideration. The group indicated assent. No opposition.

TRAP & EUTHANIZE
Effectiveness: 2.2; Humaneness: 1.2; Legality: 2 and Safety 1.4.

Rollo commented that the group average on humaneness is a little higher here.

Ringquist said that for her, it depends on timing. If deer are trapped for a long time, it is less humane in her perspective. If a deer is trapped for a short amount of time and then immediately and humanely killed, then that brings the humane score up for her.

Fiorini asked about the safety score – does that refer to the safety to humans or to deer? Are deer moved or are they killed in the cage. Griffin responded that they usually killed in the cage. Griffin responded that the process is generally safe for the general public. There may be hazards to people trapping the deer.

Moore asked if IDNR would approve trap and euthanize. Griffin said that IDNR will allow trap and euthanize.

► Rollo asked if group felt that this was not worthy of further consideration. The group indicated assent. No opposition.

FEEDING BAN
Effectiveness: 1.4; Humaneness: 4; Legality: 4 and Safety 4.

- Griffin said more of an education tool.
- Clay asked what about businesses that sell salt blocks. Clay said need to educate vendors. Can we limit sale?
- Rollo said likely not.
- Rhoads said better to educate the public and reduce demand. It's not just salt block, but deer will eat bird seed, plants, etc.
- Griffin said that a feeding ban could help reduce diseases. Not the best solution, but should not be taken off the table.
- Fiorini said a feeding ban might be effective for reducing the density of deer in certain areas.
- Fiorini said there should be qualifiers next to the score, to better describe the score.
- Rollo asked for feedback on the enforcement hardship.
- Ringquist said that it would most likely be complaint-driven. It would be easier to enforce if the ordinance was written with enough specificity to be clear on what constitutes deer feeding.
- Ringquist also suggested that lot size might make a difference. If someone has 100-acre lot, then who cares, but if someone lives on a small lot, it could create problems for neighbors, so perhaps it could be tied to lot size. This would help address the nuisance concern in urban areas.
- Thomas does not agree with the high legality score because of the enforcement concerns. However, because of its educational value, he would still consider it a possible strategy.

► Rollo asked if people were in general agreement about keeping this recommendation in play. Group indicated assent.

FENCING
Effectiveness: 3; Humaneness: 4; Legality: 4 and Safety 3.75.

- Kiesling asked if electric fences are included in this discussion? Moore and Rollo said that they were not considering fences as part of their individual analyses.
- Foyut said if properly done, an electric fence could be safe.
- Granbois said that the electrified peanut butter fence is very effective. It is a conditioning tool: the deer tastes the peanut butter, get a slight shock and are encouraged not to return.
- Griffin agreed, said the AC solar chargers don't have as much power.
- Foyut said that those that are commercially available and operate on a pulse. His neighbor has one; it is smaller fence to keep raccoons out of his garden. It is not that bad. There are some fences designed for cattle. - - those are a lot stronger. He said any allowance for electric fences would have to be very clear on what is/is not allowed. Most fences would not harm a child, but he would not want children to touch them and suffer the trauma. For that reason, he can see why they may not be a good idea within the City limits.
- Griffin said that AC pulses allow you to let go. He advised that if the group wants to pursue this, they should consult with an electrician.
- Ringquist said that it might make sense where the electric fence is located – on boundary/edge of property v. around tomato plants.
- Kiesling expressed that she has aesthetic and social concerns about encouraging everyone in the community to install tall fences. She doesn't want the community to become a community of fences. One nice thing about Bloomington is its beauty. Fences also walls people off from each other and encourages further isolation, not connection.
- Rollo said that in a neighborhood wherein not everyone has a fence, the fence will just push the problem into your neighbor's yard.
- Foyut said in the bigger scheme of things, this is not going to do anything to control the population. Initially, he rated it a "3," but that was based on the perspective of the person installing it. Now, thinking about the effectiveness of the strategy overall, he would lower his score.

- Granbois said that while fencing does not stem population growth, it is a tool and cannot hurt.
- Rollo invited Parkhurst to add to the discussion. Parkhurst said that an 8' fence did not work for his neighbor.
- Fiorini said when making a recommendation for fencing in the front yard, the group should make clear that fencing might shape the movement of deer.
- Moore said the Task Force should be clear about the type of fencing it would endorse.
- The group asked Rhoads to explore if electric fences are allowed in other communities.
- Ringquist asked if the Task Force is going to be making general recommendations to the Council or if the Task Force is expected to come up with specific proposed language.
- Rollo said, the more specific, the better.

► Rollo asked if people were in general agreement about keeping this strategy in play. It is effective for individual property owners, but not for a general strategy. Group indicated assent.

DETERRENTS & REPELLENTS
Effectiveness: 2.1; Humaneness: 3.8; Legality: 4 and Safety 3.75

- Clay said that this one really is something that residents can already do to mitigate deer damage, unlike the other management strategies being discussed. Deterrents and repellents don't require a law change or a special permit.
-Fiorini would like to echo Smith's earlier point that use of backyards (the "get outside" idea) can also deter deer.
► Agreed to keep suggestions for deterrents and repellents in play as suggestions for individual property owners.

CONTRACEPTION
Effectiveness: 1.4; Humaneness: 3.2; Legality: 3 and Safety 3.125

- Griffin said cost just applies to the cost of trapping the deer and administering the dose. It does not include the cost of marking the deer, moving them, etc.
- Foyut said that humaneness really depends on how the contraceptive is administered. If the deer is trapped and administer through injection, that would be different than seeding the area.
-Griffin said that contraception is administered by single-hand injection. There are contraceptive chemicals that could be consumed by the deer, but there are legal issues involved with that. There is no way to keep non-target animals, including pets and children, from consuming the chemical.
- Rhoads asked if the population would have to be closed to make this effective. Griffin replied, "yes."
- Fiorini said that if the urban deer do not travel far and have a smaller home range, they could be considered "closed." Griffin said that in part that may be true. However, when you are administering a drug regulated by the EPA, you must guarantee that the population is closed. There are bioaccumulative concerns associated with open populations.
- Ringquist said we do not have a closed population in Bloomington.
- Foyut asked if the biggest concern is that some deer might be consumed by humans? Griffin said it could be due to hunters eating a dosed deer. A dosed deer could also be hit by a car and consumed by a coyote or another animal. That animal could then be eaten by another animal; hence, concern about bioaccumulation. The bioaccumulative effects of contraception are not fully known.

- Fiorini said that his point is that if the deer population is concentrated in certain areas, then maybe certain areas could use this. Then, after 5 or so years, the population would decrease.
- Griffin said that if conduct the effort on a small population of deer, the bioaccumulative effect is lessened. However, if a deer wanders away and is eaten by something else, there are environmental concerns.

Rejected because of efficacy, concerns with bioaccumulation, cost
Rollo asked what people think about this recommendation. Ringquist said this population is not closed; Moore added it is not effective; Granbois said it is costly

► Rollo asked if group felt that this was not worthy of further consideration. The group indicated assent. Group agreed that this is not a practical management solution.

STERILIZATION
Effectiveness: 2.3; Humaneness: 1.8; Legality: 3.33 and Safety 2.5.

-Kiesling suggested that this management option be eliminated from further consideration.
- Foyut said he would be less likely to recommend sterilization than contraception.
-Rhoads said Ithaca, NY is engaging in sterilization in urban core, regulated hunting on the fringe and a control area beyond that.
-Foyut asked if capture myopathy ensues when deer are sterilized?
-Griffin said Stewart would know.
► Rollo asked if group felt that this was not worthy of further consideration. The group indicated assent. Group said would even be less likely to recommend sterilization than contraception.

VI. SURVEY– Rollo asked Rhoads to update the group on the status of the survey. Rhoads said that she met with Moore and Fiorini to discuss which survey responses should be mapped. Rhoads replied that she is working with GIS to create a database of survey response and then plot responses. Rollo said that the Task Force should soon have a map of the survey "hot spots.

VII. DIVING LABOR
Rollo said that it might be a good idea to move things along if some Task Force members started to assume some duties when it comes to issues of management in urban environments, deer-vehicle collision recommendations and deer-resistant plants. If someone is interested in helping, e-mail Rhoads.

VIII. REVISED HUMANE STATEMENT

At the last meeting, the group discussed a possible humane policy statement. Based on feedback from the feedback from the Task Force, Ringquist revised the statement. The group reviewed the following statement:

Humane Deer Management Position Statement

As stated by the World Organization for Animal Health and the American Veterinary Medical Association (AVMA), animal welfare means how an animal is coping with the conditions in which it lives. An animal is in a good state of welfare, as indicated by scientific evidence, if it is healthy, comfortable, well nourished, safe, able to express innate behavior, and if it is not suffering from unpleasant states such as pain, fear and distress. Further, conservation and management of animal populations should be humane, socially responsible and scientifically prudent, including humane handling and humane slaughter.

The AVMA states that euthanasia is the act of inducing humane death in an animal with an emphasis on making the death as painless and distress free as possible. Euthanasia techniques should result in rapid loss of consciousness followed by cardiac or respiratory arrest and the ultimate loss of brain function. In addition, the technique should minimize distress and anxiety experienced by the animal prior to loss of consciousness. The specific method to be used should be determined based on a number of factors including location of the animal to be euthanized, safety aspects, whether the animal is captive or free-roaming, whether the animal is intended for human consumption and the experience of personnel performing the euthanasia.

The joint City of Bloomington/Monroe County Deer Task Force endorses these statements.

The Task Force intends that priority be given to non-lethal mitigation strategies and that lethal means be employed when a determination is made that a problem exists that is unlikely to be solved using non-lethal means. Further the Task Force recommends lethal management methods be employed where necessary to alleviate suffering, protect human life, to prevent damage to the rest of the ecosystem or for the overall health of the deer population. If lethal means must be utilized, the most humane methods should be employed, as prescribed by the AVMA Guidelines on Euthanasia.

- Ringquist said that after the last meeting, went back to review the AVMA guidelines on euthanasia and there was a statement in there from World Organization for Animal Health. Tried to define animal welfare in general – 1st paragraph. AVMA do lay out what is/is not humane. Took parts from both of those statements. The first two paragraphs. The rest is a edit of what had discussed previously.

- Clay asked if euthanasia and lethal are the same thing. Ringquist replied that euthanasia is lethal.

-Granbois looking at definition of animal welfare and seems like talking about domestic animals. Ringquist said that deer should also be well nourished, able to express innate behavior and not suffer from pain, fear and distress.

- Granbois said that that does not sound like wildlife.

- Foyut said that “welfare” is something that humans would regulate. What happens in nature is outside of moral considerations – it just “is.” You cannot judge a mountain lion for being immoral because it does not understand morality. This term “welfare” is referring to human behavior.
- Hayes animal welfare statement is used in farming too – it is not limited to companion animals.
- Rollo thanked Ringquist, Hayes and Foyut for working on this.
- Moore said the Statement was great and he has no changes.
- Clay said fourth line from bottom says “where necessary to alleviate suffering” talking about the animals and not the gardeners.
- Griffin said that Bloomington deer are not at carrying capacity.
- Hayes said that if deer were at carrying capacity, then some of the suffering concerns would come into play.
- Griffin asked about the line that read, “priority given to non-lethal strategies, but lethal means be employed when a determination is made” -- what would be the determination?
- Ringquist says that it really up to the conversations of the group. The previous version used language about data; however, if the survey reveals a certain pattern and that if the group comes to a determination that a feeding ban, for example, will not take care of the problem, then that’s a determination of the group.

►Rollo asked for a vote: Moore moved that the Statement be adopted. Via voice vote, all present indicated “aye.” None opposed.

IX. OTHER
-Rhoads asked those present who have not completed the matrix to do so by the end of the week.
-Parkhurst asked if you could dart the deer and then euthanize it? Griffin said that the meat could not be consumed.
- Clay asked if the Task Force should post the survey results on the web? He said that people are complaining and that the survey might satisfy them.
- Rollo said he is in favor of having a really careful report and doing our due diligence. In the future, people will look back and look at the quality of the report.
- Granbois said she thinks it’s a good thing that the group is taking its time. While the report will not make everyone happy, it is good that the group is being careful with its deliberations.
- Foyut said that the survey responses suggest that some people think there is a simple fix.

X. NEXT MEETING: Tuesday, 18 October 2011. Rollo said that at the next meeting, the group will discuss regulated hunting, managed hunts and sharphooting.

XI. ADJOURNMENT: 7:15pm