

**EAST GOSHEN TOWNSHIP  
DEER MANAGEMENT COMMISSION  
MEETING MINUTES  
APRIL 16, 2007**

The East Goshen Township Deer Management Commission held their regularly scheduled meeting on Monday, April 16, 2007 at 7 PM at the East Goshen Township Building. In attendance were: Chair, Jim McRee, and members Steven DiAntonio, Maria O'Hara, Ellen Sinclair, Susan Vanasse, Walter Wujcik, and Albert Zuccarello. Also in attendance were Don McConathy (Board of Supervisors) and Jack Yahraes (Municipal Authority).

**1. CALL TO ORDER & PLEDGE OF ALLEGIANCE**

The Chairman Jim McRee called the meeting to order at 7:08pm and led those present in the Pledge of Allegiance.

**2. CHAIRMAN'S REPORT:**

**1. Thermal Overhead Deer Count**

Jim reported that aerial deer count was conducted on 3/25-26/07 from 11pm – 2:30pm. The 3-4 hour snapshot revealed 296 deer in the township. Red dots represent the deer, blue dots represent livestock and grey dots are unconfirmed deer (14 additional). The survey included an overlap of 1000 feet (300 yards) beyond the township line. There were 142 deer found on the north/south/east borders. The western edge of the township was not included in the count because of bad weather. Jim said a pdf file will be available on the website.

The report will be used as a tool to determine the estimated density of deer in the township at any given time. The township is roughly 10 sq. miles so the density is approximately 30 deer per sq. mile. Jim said the committee has discussed target deer populations of 4-13 deer per sq. mile, so it is clear that the numbers are much greater than they should be. Maria said the deer count wasn't as high as she anticipated. Jim said the report does not show the daytime deer picture, when they usually cluster and bed down.

Jim explained that according to a 1995 count was 152 deer. Based on these numbers and projected growth, the deer population could have grown to 600-800 deer. Ridley Creek State Park has 37 deer per sq. mile and Valley Forge has 55. Bob Hudson said residents need to remember that spring births of 2-3 foes per doe will drastically increase the herd in the next few months.

***Public Comment:***

*Elizabeth Anderson* – questioned how they determined the number of deer per square mile. Jim explained that Stockton, the company that performed the survey, recorded the heat signatures of the deer. Heat signatures are unique for each creature (ie. Humans/dogs are warmer than deer). They use a minimal methodology, meaning that if they are unsure if it is a deer, they do not count it and will fall into the “unconfirmed” category. Jim also explained that during the PA Game Commission Deer Forum on 2/9/07 approximate numbers of deer per square mile that a landscape could support were estimated at 5 deer per sq. mile for dense urban woodland and 20 deer per sq. mile for rural farmland. Therefore it was estimated that 4-13 deer could be supported in a suburban landscape.

Jim reviewed the progress of the commission to date for new residents in attendance. Jim stated that a small deer hunt was conducted 2 years ago. One year ago, more advertising was done and residents raised concerns about safety so the BOS postponed further hunting until they obtained more concrete information to back up their actions. The BOS approved the deer count and formed the DMC to determine the extent of the deer problem, if any, and make recommendations to the BOS. At a cost of \$18,000, the deer count was done to determine the approximate density of the deer population. The DMC has also looked into property loss and damage. Al said according to State Farm Insurance there were 19,000 collisions reported in PA last year. Between the Game Commission and PennDot, there were about 1800 deer picked up in Chester/Delaware County last year in one month. Al said getting a breakdown specifically for Chester County or East Goshen Township is nearly impossible and would be very costly.

Elizabeth Anderson reported that there were only 2 accidents reported to the East Goshen Police Dept. so far this year (one in January and one in March). Jim pointed out that most people don't make reports to the police unless someone is injured and that's why the numbers from State Farm are good. Ms. Anderson said "reflectors" have been found to reduce accidents by up to 90% and offered to share the information with the commission.

Jim also said the DMC has looked at property damage and foliage destruction as well as lyme disease. Chester County is the #1 reporter of lyme disease in the country. Although the ticks come from the white-footed mouse, deer are the #1 carrier, carrying up to 1000 ticks. Mark said 75% of the township staff has some form of lyme disease

***Public Comment:***

*Marsha Gordon* – reported that the American Lyme Disease Association says that killing deer is not the answer to the lyme disease problem. She stated that a tree service called pyrethium in which treated cotton balls that attract the mice will actually kill off the ticks where they come from. Jim said they are open to exploring different approaches but they are interested in protecting the residents. They have looked into 4-Poster Feeders, which are found to be 90% effective.

Al said that although he likes the cotton ball idea, we need to recognize the significant problem that deer present. He said lyme disease in PA is an epidemic – Chester County is #1 in the world! Dr. Glenn Burkland of the Contagious Disease Council estimates that 8% of the Chester County population has been diagnosed with lyme disease and he is concerned about the children.

Ms. Anderson submitted research conducted by Sara Perkins of Penn State that found that lyme disease is actually increasing even in "deer free areas." The problem is habitat degradation and fewer natural predators (foxes and owls) resulting in "hot spots." Mice are the real problem. Ms. Gordon agrees that deer are the buffer between the ticks and humans.

**2. Review of Minutes**

The minutes of the February 21<sup>st</sup> and March 19<sup>th</sup> meetings will be reviewed and approved at the May meeting.

**3. Deer Count Report**

Mark Gordon, the Township Zoning Officer, worked with the company on the survey and used an overhead projector to review the results and breakdown of the township. The township boundaries appear in blue; red dots represent deer.

- Greenhill/352 – Rossmore open space; nearby property owners allow hunting.
- Open space south of Villa Maria – some hunting allowed.
- Upton Circle area – open space to the north; property owners allow hunting.
- South of Greenhill Rd. & E. Boot Rd./Hershey’s Mill – not many deer found.
- Goshen Corporate Park/Grand Oak – 8-10 deer found. The green grass is a natural attraction for the deer this time of year.
- Hick’s Farm
- Clocktower open space – about 30 deer found.
- Bowtree – about 6 deer found.
- Rocky Hill – Grey’s Estate here with 10 residential lots. There is a conservation easement with Willistown Trust (100 acres) that allows hunting (select archery and sharp-shooting). About 55 deer found.
- Will Penn Farms (southeast part of township) – about 15-20 deer found.
- Williams Ways – about 20 deer within 3-4 blocks.
- Manley Road – heavily forested, some active archery hunting takes place.
- Park Ave (by fire company) – large group found.
- Reservoir Road – not many seen
- Supplee – fairly dense.

All streams appear in blue and much of the township open space falls within floodplains. These are natural corridors for deer to travel/congregate.

The president of the company flew during the survey and said there were many deer seen. The pilot does a lot of government work and came from Greensboro, VA. The equipment is patented. Mark explained that the camera operator during the flight registers the “hits” and they do a 2<sup>nd</sup> fly-over to reconfirm.

Mark reported that the PA Game Commission recommends 20 deer per sq. mile for the whole state. They are in the process of implementing a 3-year suburban management plan. East Goshen is 90% developed. What’s left is mostly commercial property. The Price’s 70-acre property is the largest parcel left in the township; hunting does take place there. The BOS and Planning Commission are very open-space friendly and conservative. The township owns 500 acres of open space. When development began in the late 19060’s a strong zoning ordinance was written and followed. Mark said there are actually a million more trees in the township than there were 50 years ago.

### **3. PRESENTATIONS:**

#### **A. Tim Smail, President, PA Forestry & Wildlife Consultants**

Mr. Smail is a certified wildlife biologist and conservationist. For 35 years he worked for the U.S. Dept. of Agriculture. For three years he worked in Europe/England studying how to establish forests after thousands of years of destruction from war, which left them without a seed source, plus growing deer populations. Human management was necessary to maintain and they looked at the situation both biologically and socially. After coming back to America, he realized that PA has a similar problem. He explained that PA has always been the largest producer of hardwood lumber in the U.S. without ever having to plant a tree. But today, we can’t reproduce

the forests due in a large part to the excess number of deer. Determining if this is a problem in East Goshen is a question of habitat.

When you look at the human dimension of wildlife management you realize it's not a deer problem, it's a people problem. He searched for 15 years to find an organization for cultural change and found the Quality Deer Management Association and was highly impressed. He believes they are the top deer researchers and management company in the U.S. and is working to build their reputation and programs in PA. There are 4000 members in PA, 13 local branches and 1<sup>st</sup> state chapter. Mr. Smail does about 80 programs around the state a year, mostly free.

#### History of Deer/Human Interaction in PA

- Tribal Ecological Balance – probably have more today than in history.
- European Colonization
- Uncontrolled Exploitation & Habitat Destruction – in the 1900's the state was 70% agriculture, today 60% of the state is in forestry.
- Near Extermination of white tail deer in 1900's because of uncontrolled market hunting and no regulation. Perception of deer as scarce resource led to traditional deer management – form of sport hunting that is managed. People continued to harvest deer but only bucks because we want to protect the doe. For the past 100 years, these laws have engrained the social acceptance of the trophy buck to save the reproductive doe.
- Perception Change – Authority (faster) vs. Education (slower but better).
- 1970-80's came the Recovery & Rise in Deer Related problems because of habitat changes.

#### Evolution of Urban-Suburban Deer Management

- Anti-hunting sentiment rises naturally because of various philosophies.
- Led to early nuisance phase
- Reach stalemate with hunters.
- Late Nuisance phase – result from lack of control of the deer population
- Today form local forums
- Evolution of State agencies – opposition, implement, adapt

#### Deer Damage Control Options – Natural, Prevent Damage, Remove the cause – if deer

- Natural Controls – climate (PA does not have severe enough winters to result in natural deer deaths), predators/prey, and disease (tuberculosis not in PA). Hunting not socially acceptable.
- Prevent Damage – all work better with lower deer densities
- Fence – not effective and high maintenance expense.
- Tubex - \$8-10/tree total cost
- Repellents – time consuming, need to reapply and keep updating.
- Non-preferred species – plant trees/shrubs that the deer don't like but like most animals they will eventually adapt.

#### Remove Cause of Damage

- Contraception – not proven effective and expensive; could take 5-7 years to see actual results and not natural.
- Trap & Release – expensive and high mortality rate.
- Sharp shooting – effective; used in Fairmont Park but very expensive

- Crop Damage Permits – time consuming for farmers.
- Hunting – basically free (hunters pay for permits for privilege to hunt) but requires management (not sport hunting).

#### Deer Management Population Control –

- There is no sure fire program that can work in one shot. Controlling deer is not a simply solution and requires continual follow-up.
- Low cost and practical
- PA Game Commission is made up of 8 people appointed by the Governor, who meet 4x's per year; they have the right to protect any warm-blooded animal in PA.
- Municipalities Educate and facilitate.
- Hunters – manage and coordinate

#### Knowledge

- Everyone should be aware of the PA Act 586 – Land for Recreation, Limited Liability of Owner: *“an owner owes no duty of care to keep the premises safe for entry or use by others for recreational purposes, or to give any warning, of a dangerous condition, use structure or activity (all allowed free recreational use of land protected from liability), on such premises to persons entering for such purposes other than willful and malicious failure to warn against.”* No lawsuit has ever succeeded up until last year when an Allentown landowner was found liable for 10%.
- Landowners can require hunters to carry insurance – very inexpensive and covers the hunter and landowner.
- Digest of Hunting Laws – available to public and landowners should be familiar with it.
- QDMA – is a hunter based hunting program. Check out website for more information.

The survey showed the location of deer at that given moment in time but the “home range” of deer is 1 – 1.5 sq. miles so looking at the deer need the township lines, they clearly travel across townships. People need to evaluate all the activity within 1-1.5 sq. miles of their property to understand the problem.

#### DQMA Program Development

- Look at habitat, home range, and age distribution, sex ratios and spatial distributions of deer populations to establish healthy herd. The five counties surrounding Philadelphia fall into a special regulation area but see many more does than bucks. It should be 1:1 male/female.
- Under the old system, 90-95% of all antlered deer were being killed statewide, annually. Bucks can reproduce at 6 months old but do not mature until 5 years. It is unhealthy for young bucks to be running a society. New antler restrictions are helping to restore the 1:1 ratio.
- Habitat – space, cover, food, water, breeding, fawning. When deer populations become too dense, they suffer social stress and disease.
- Deer Movement – 1 sq. mile (irregular). Does tend to follow streams, bucks follow mountain ranges.
- Deer Dispersion – tend to cluster as seen in the aerial survey.
- Mr. Smail said a management plan needs to be developed that works for both the hunters and the landowners. Things to consider:
  - How many hunters in a specific area are allowed to be effective

- Where and when hunting will be allowed (can always be more restrictive than the Game Commission allows).
- Establish how many deer expect to harvest. The number of deer is a real issue but the “effects” of the deer is the real issue.
- ID system – where hunters park and how identify what hunters are part of the program.
- Establish check stations where hunters sign in, report on deer (determine age, weight and ultimate health of herd).
- Tree stands – most required for safety as hunters need to shoot down towards the ground but the most danger is to the hunter if faulty tree stands are used).
- Scouting – need to survey land prior to the start of the program.
- Doe only hunting – can establish how many does need to be harvested before bucks with antlers. It has never been less than 23% Antlerless “button” bucks but could be as high as 33%. There is a way to tell the difference between a button buck and a doe.

*Additional Considerations*

- All hunters attend yearly meetings with township residents – good to physically see who is involved.
- Establish workdays with landowners (ie. Hunters work for the township for free) – good way to get to know each other and establish trust. Hunters self monitor – check in deer. Can use cameras to make sure this is done.
- QDMA wants everyone to know what’s going on; it should be a cooperative experience for both sides.
- Invite private landowners to use check stations as well and adopt management programs to help meet township goals.

**Recommendations**

- Kennett Township Deer Mgt. Program was established after residents meet and determined that deer management was their #4 concern. A committee was formed and the problem identified. Private land management programs have been started. Mr. Smail would recommend talking to Kennett Twp about their program as well as the National Land Trusts, the most effective conservancy program in the area; has strict rules and guidelines for hunters and the program. They use both hunting permits plus parking permits, hunters need to check-in (supplied a map indicating where hunting is allowed). They have been very pleased with the results without assigning specific areas. They are successful because they enforce the rules.
- Review survey conducted during the Chester County Deer Mgt. Forum on 2/9/07.
- Review the Guide to Deer Mgt. In Developed Areas of PA available on the PA Game Commission’s website.
- Contact East Bradford Township about their deer management program.

***Public Comment:***

*Marsha Gordon* – in a true predator/prey management program, the sick, old or young are usually chosen. How can a hunter simulate this process? Mr. Smail said most hunters never thought about it but they can be taught to field judge the age, sex and health of a deer though characteristics and body condition. He admitted that a cultural change within the hunting community would stimulate a natural predator/prey relationship. The 3-point antler restriction has helped to protect 50% more bucks, but they still want more. Ultimately they want 5-yr. old bucks running a healthier deer

population and protecting the young deer and promoting good genetics. The tradeoff is greater rubs and tree damage.

*Mike Malachek (Bowtree)* - asked why Mr. Smail was here and he said to provide an educational resource to the township/residents. Jim stated that Mr. Smail was not a hired consultant.

*Sue Burnhart* – asked what else QDMA does. Mr. Smail explained that QDMA is a non-profit member of the Wildlife Foundation that helped PA conduct the largest whitetail research project ever done, but they primarily focus on establishing deer and hunting management programs. Ms. Burnhart is concerned about the close community and believes it's too dangerous to hunt. Mr. Smail said there are "safe zones" and that hunting is in the top 3% of all recreational activities from a safety standpoint, despite the negative perceptions of firearms, etc. Ms. Burnhart maintains that one accident is too many and Mr. Smail said she is entitled to her opinion but ultimately the majority rules and we will be seeing more managed hunting programs in the future. Al pointed out that archery hunting is fairly safe. Mr. Smail said an accident where a non-hunting person has been shot is almost non-existent. Archery has a 20-yard range.

*Mr. Malachek* asked if this was the plan for the township open space and Jim said that their charter is to give recommendations to the BOS for a management program. The DMC has settled on hunting. They are looking at the open spaces and working with private owners on developing a program. Mr. Malachek said that if there were 153 deer in 1995 and there are now 300 deer in 2007, it would appear that private hunting is managing the problem. Jim agreed that private hunting does help but there are a number of social complaints that can't be ignored.

*Jim Benoit, QDMA* – agreed that hunting on private land is good but residents need to remember that hunting season just ended and the spring births could easily see 300 additional deer in the township by June. Kevin Doyle (Thorncroft Drive) found it hard to believe that the deer population was doubling every year and questioned where there are going if this is the case. Al pointed out that car accidents are a major contributor. Jim said they have drawn certain conclusions and cannot pinpoint the exact population growth. Mark pointed out that the DMC has been considering options over the past few months and they are lucky private land owners allow hunting. But of the 500 township acres, only about 200 are hunt able and they don't want to become Valley Forge. Mr. Doyle said they should gather information from the private landowners for comparison. Mark said he has seen the evidence of hunting over the past 10 years and has spoken directly with landowners. They want to encourage private landowners to work with the township, voluntarily join the program and use check stations is possible but they would not be required to do so.

Ms. Anderson like the presentation but her research shows just the opposite and that the management needs to be continually maintained. She asked if the DMC was open to hearing counter opinions.

Mr. Doyle asked if any member of the DMC was a member of QDMA. Steve is the only one. Mr. Malachek pointed out that the February 21<sup>st</sup> meeting minutes state that no one on the DMC was a member of the QDMA and Steve said that at the time, his membership was pending so they are accurate. Steve said this presentation and their meetings are designed to educate the residents before they make a recommendation to the BOS on June 19<sup>th</sup>. Joe said the BOS is looking to make a decision by September.

*Bob Hudson* – said that if the township moves forward with a deer management program, private landowners will look to them when there is a problem and adapt the working program for use on their land. Ms. Burnhart did not believe the numbers from the deer count established a problem.

Mr. Doyle said controlled hunters are okay but he has seen illegal hunters in the area that backs up to Thorncroft and they are the real problem. Mark said an established program could help because the registered hunters will self-police. John Hall asked if the township can pass more restrictive rules than the state allows and Mr. Smail said yes but only on public land.

Mr. Doyle asked what township areas they have considered for hunting. Mark said they would consider Clocktower, Grand Oak, Supplee Valley and may look to partner with the Grey's Estate. Mr. Smail said anyone involved in the program would need to be qualified and identified. Maria asked whom Grey's Estate uses but Mark wasn't sure but he said they use an organized group vs. landowners who usually allow individuals, friends and family. It would be nice to have a referral system that the township could give these landowners. Kathryn Yahraes said the Grey's Estate allows hunting with guns. Mark can look into what numbers are available from the Grey's program. A township program would only be archery, as the ordinance does not allow for firearms on township property.

## **B. Lyme Disease**

Jim said the presentation by Doug Fearn from the Lyme Disease Assoc. of Southeastern PA would not take place tonight but Tim Smail discussed lyme disease as it related to mice vs. deer. He said the ticks don't actually transmit the lyme disease to their offspring but the eggs are affected during the larva stage. During the 2<sup>nd</sup> stage of life, nymph is when lyme disease is transmitted to humans. The problem is that the ticks are just so small that they are hard to detect. Adult ticks carry a number of different diseases. Pyrethium is effective but you need to saturate the area and it's difficult to maintain in large areas. The 4-Poster disrupts the cycle at the other end and was developed by the USDA but you won't find a wildlife biologist who supports artificially feeding because it goes against animal instincts. He agreed that it is a difficult situation without an easy solution. Al is more worried about the spread of lyme disease than the threat of arrow accidents. Mr. Smail is unaware of research done by Sara Perkins of Penn State. Ms. Anderson gave her research information and contact information to DMC member Ellen.

Jim stated that between now and June 19<sup>th</sup>, the DMC will establish the problem, review their options and draw a conclusion. They are considering education, lyme disease and a deer management program. Mr. Doyle asked how big they feel the problem is and Jim said an exact number hasn't been determined but it is definitely less than 30 deer per sq. mile. They are working on a range of 4-13 or 5-20 deer per sq. mile. Mark said numerous wildlife biologist agree that it doesn't matter what the number is but what the habitat can handle. Jim said they know the program implementation will need to be continually managed and re-evaluated.

### **Public Comment:**

Ms. Burnhart asked how the first hunt could have resulted from a petition signed by just 60 residents. Mark said there are 17,000+ residents in East Goshen but those 60 residents raised questions to the BOS and they were able to identify hot spots and problems, including Grand Oak. A pilot program was approved and those residents were very happy with the results. Ms. Burnhart said she talked to residents and they were not happy and scared for the children. Mr. Doyle asked how many deer they got in the hunt. Mark reported that 1200 deer were harvested

from Grand Oak, Wentworth S/D and the Supplee Valley. There were no complaints about safety or hunter behavior two years ago.

Mr. Doyle asked what the economical impact of a deer management program would be and Mark said none because the hunting groups don't charge a fee. Even if they can just maintain the deer count or bring it down a little, it will be successful. The trouble with inbreeding and the rise of disease within the township is growing. Al asked if anyone had gotten in an accident and although Ms. Burnhart was in a deer related accident, she would still rather live with the deer vs. the hunters.

Mr. Malachek asked what the goal was, how they will measure success and how they will make adjustments to improve the program as it goes along. Jim said they goal is to reduce damage, lyme disease and accidents. Mr. Smail said they would need to decide how to measure success – could be by pure numbers (thermal count or similar method would need to be continually repeated) or based on complaints. Mark said as a staff member you are always going to have complaints but when an entire neighborhood is asking for help, there is a real issue. Bob Hudson said there was a lot of good information from all sides shared tonight but it will take several years of an established program before you determine the level of success.

#### **4. SUMMARY**

Members agree that it is unnecessary to walk the Grand Oak open space. Jim said they need to finish collecting and reviewing information so they can draft a recommendation for consideration at their next meeting. Jim said they could include something in their recommendation that a township staff member run the program. Mark said that most likely he would oversee any program but it's important to find a group who will do most of the legwork. Mark is not a QDMA member.

Joe said it is clear that there is a huge education issue and is doubtful that the BOS will be in a position to run a program this year. Susan recommended have multiple means of communication with residents as public meetings aren't enough. Mr. Smail said QDMA does have a municipal education program coming out this summer as well as a program on DVD that could be linked to a website or made available on a local cable TV program. They also have photocopied material. Joe said he would like to see a summary of information that could be sent to a large number of people. The BOS would also like to hold a large public meeting, such as at the high school. They would like to see people in favor of the program attend as well. Four years ago, Mr. Smail said they did a countywide education program complete with reference materials from all sides. A copy of the Connecticut Deer Mgt. Report was distributed to all DMC members.

Members agree to meet on Monday, April 30<sup>th</sup>. The BOS has no preference on format for the recommendation. Joe suggested structuring a multi-step program that started in one section of the township and could be phased in over the 10 years. This process could help build township support. Bob Hudson said perception seems like the biggest issue.

#### **Report on Supplee Open Space Walk**

Steve said that they found evidence of illegal activity on the Supplee/Rockland & Lockwood public lands – a lot of lumber and dissemination of the ground (paintballs). Parents who are opposed to the hunting have kids creating problems in these areas. Mark said the township is left to clean it up. Also these public areas often back up to industrial areas and make for easy dumping grounds.

#### **5. ADJOURNMENT**

Jim made a motion to adjourn. Steve seconded the motion. There was no further discussion or public comment. The motion carried unanimously. The meeting adjourned at 11pm.

Respectfully submitted by: \_\_\_\_\_  
*Tracie Hill, Recording Secretary*