

TOWNSHIP OF LOWER MAKEFIELD
BOARD OF SUPERVISORS
MINUTES – MARCH 18, 2009

The regular meeting of the Board of Supervisors of the Township of Lower Makefield was held in the Municipal Building on March 18, 2009. Chairman Maloney called the meeting to order at 7:30 p.m. Ms. Appelton called the roll.

Those present:

Board of Supervisors: Matt Maloney, Chairman
 Ron Smith, Vice Chairman
 Teri Appelton, Secretary
 Pete Stainthorpe, Treasurer
 Greg Caiola, Supervisor

Others: Terry Fedorchak, Township Manager
 David Truelove, Township Solicitor (left meeting in
 progress)
 Vince Magyar, Township Solicitor (joined meeting in
 progress)
 James Majewski, Township Engineer
 Kenneth Coluzzi, Chief of Police

Mr. Maloney acknowledged the presence of Boy Scouts from Troop 30 who recently worked on a project installing labels on the storm drains throughout the Township reminding that the storm drains in the Township drain to the creeks and eventually the water is consumed by the residents. He also thanked Mr. Majewski for leading up this effort.

Mr. Majewski reminded residents that the Township is sponsoring a hazardous waste/computer collection program run by the County which will be held at the Lower Makefield Corporate Center South Campus in May. Mr. Maloney noted latex paint does not need to be taken to this collection site, and once dried out can be put out with the regular trash.

Mr. Maloney noted that the Board met in Executive Session for approximately one hour prior to the public meeting discussing litigation and personnel matters.

PUBLIC COMMENT

Ms. Sue Herman stated she is present on behalf of the Citizens Traffic Commission regarding the intersection improvements at Stoopville and Washington Crossing Roads and she read their letter dated 3/18/09 in this regard (attached to the Minutes).

Ms. Herman stated given the history of this intersection, the CTC feels it would be prudent for Lower Makefield to do an independent and swift evaluation of whether a traffic signal is warranted with the spur and without the spur and to confirm the exact location of the spur in relation to the Lower Makefield/Upper Makefield boundary. Mr. Maloney stated Lower Makefield still retains authority over any final designs from a land use perspective. Mr. Fedorchak agreed and stated he was planning on putting this item on the April 1 Agenda for a complete discussion and stated he will continue to work with the CTC on this. Ms. Herman stated with the recent funding of the Stoopville project, there is an extremely tight timeline; and she feels decisions will be made very quickly on this intersection. Mr. Maloney stated the Township still has authority over this matter. Ms. Herman stated if this spur is located solely in Upper Makefield, she feels they have the authority. Mr. Maloney stated the reconfiguration of the intersection will require Lower Makefield approval, and Mr. Fedorchak agreed. Mr. Fedorchak stated he recently had a discussion with Larry Gilmore that even if the spur is reintroduced, the traffic signal will still be warranted at that intersection. He stated the Board of Supervisors will have to approve the intersection configuration at 532 and Stoopville as well as the traffic signal at Highland and 532.

Ms. Herman asked Mr. Majewski where the spur is located, and Mr. Majewski stated it is located partly in Lower Makefield and partly in Upper Makefield. Ms. Herman asked if Lower Makefield has say over whether or not the spur is acceptable and safe; and Mr. Maloney stated to the extent that they need Lower Makefield's approval, he feels they would have a say. Mr. Fedorchak stated PennDOT has not yet weighed in on the re-introduction of the spur.

Ms. Virginia Torbert stated at this point all they have is the opinion of Upper Makefield's engineer who previously advised Mr. Fedorchak that there was doubt that they could get the warrants for the intersection; and now he is telling Mr. Fedorchak that he is certain they could get the warrants with the intersection with the spur. She stated they do not know that PennDOT will issue the warrants if the spur is put back. Mr. Fedorchak stated what he indicated to him when asked the question was that he was not sure, and Mr. Fedorchak asked him to go back and check and get back to the Township with a more definitive answer and the answer was that a traffic signal would be warranted. Ms. Torbert asked if he did any volume counts to determine if this would be the case, and Mr. Fedorchak stated they already have that information. Ms. Herman asked if the Township's engineer will be given this information to review, and Mr. Fedorchak stated he did not ask for this but he could do so. Mr. Fedorchak stated Upper Makefield and Newtown and their engineers have been very forthcoming with information and data on this project. He agreed to ask for this information.

Ms. Torbert asked if a formal meeting has been set up between Upper Makefield, Newtown, and Lower Makefield to discuss the re-introduction of the spur into the Plan. She stated the Courier Times article indicated that they were on a very tight timeframe

and all they needed at this point was sign off from Lower Makefield as it had been agreed to by two of the three Townships. Mr. Fedorchak stated he could contact the Township Managers about this. He stated it seems that they have complied with the conditions that the CTC established Monday night.

Mr. Chris Lanberger, 110 Eton Road, stated Black Rock Road is open and the culvert has been completed and they are closer to having a safe bikepath to the Canal. He thanked Mr. Majewski and Mr. Fedorchak for setting up a meeting with TPD where they reviewed the design for the path. Mr. Lanberger stated he feels they have come up with a better solution for which they can submit a preliminary design by April. He stated they will need to authorize TPD to complete that design up to Westover which they can do within their current Agreement which will then include the most dangerous part of the path on the curve up at Westover. Mr. Lanberger stated there is one piece of asphalt which was not paved across the culvert itself, and he felt the most expeditious way to handle this was to discuss this with DCR to see how they could get this paved.

Mr. Scott Burgess, 15 Glen Drive, thanked the Board of Supervisors for getting the Black Rock Road project done. He stated he discussed with Mr. Fedorchak that on Monday morning there was a line of approximately six trucks between Ivy Lane and the Canal and you could not get around them except by going into the left hand lane; and with cars coming down the hill, this was very dangerous. He stated he feels the trucks have been taking away the dredging material. Mr. Burgess stated there have been some problems with trucks going too fast in the area and asked that the Police have a presence there. Mr. Burgess stated because of the all the trucks that have been on Black Rock Road over the past six months, Black Rock Road will be in need of repair from the Canal to River Road.

Mr. Burgess stated he received an e-mail that the New York City DEP has informed the U.S. Geologic Survey that it will be withdrawing its financial support for twenty-two stream gauges in the watersheds that contribute to the City's water supply. The cost to operate and maintain each of these gauges is \$17,000 per year. The list includes at least six gauges that are used by the National Weather Service for flood forecasting and flood modeling; and some of the gauges on the list are included in the new flood analysis model that the Corps of Engineers, U.S.G.S., and N.W.S. are preparing for the DRBC. Mr. Burgess stated all of these gauges are further north, but they are all going to have something to do with the modeling. Mr. Maloney asked how far north, and Mr. Burgess stated they would be further north than New Hope. Mr. Maloney stated he recognizes that these would factor in, but in terms of the Board of Supervisors' ability to work with other Municipalities, the more geographically approximate they are, the better. Mr. Burgess asked that the Board lend their support to any letters sent to the Congressmen and Senators. Mr. Maloney stated he feels it would be appropriate to reach out to Congressman Murphy. Mr. Burgess agreed to forward the e-mail to the Supervisors, and Mr. Fedorchak was asked to draft a letter.

APPROVAL OF MINUTES

Mr. Caiola moved, Ms. Appelson seconded and it was unanimously carried to approve the Minutes of March 4, 2009 as written.

APPROVAL OF MARCH 2 AND MARCH 16 WARRANT LISTS AND FEBRUARY, 2009 PAYROLL

Mr. Stainthorpe moved, Mr. Caiola seconded and it was unanimously carried to approve the March 2, and March 16, 2009 Warrant Lists and February, 2009 Payroll as attached to the Minutes.

ZONING HEARING BOARD MATTERS

With regard to the Edward and Virginia Kowzun, 905 Slate Hill Road, Variance request to construct an addition resulting in encroachment into the rear yard setback, it was agreed to leave the matter to the Zoning Hearing Board.

With regard to the Note Brothers Construction, Inc. Variance request for a property located at 2001 Makefield Road to permit construction of a one and a half story detached garage not located within the fourth of the lot farthest removed from the abutting street and with a height greater than permitted, since there a few minor engineering issues, it was agreed that the Solicitor should participate to recommend conditions to any approval.

Mr. Truelove left the meeting at this time. Mr. Vince Magyar joined the meeting at this time as Township solicitor.

DISCUSSION OF DEER MANAGEMENT PROGRAM

Mr. Bryon Shissler was present and stated the deer add to the quality of life, but can become overabundant; and when they do they have ecological, economic, and human health impacts. He stated deer are defined as overabundant when they limit the abundance or occurrence of another valued resource or interfere with some valued ecologic process for human activity. Mr. Shissler stated they were asked to come in after a concern was expressed and the conclusion was reached by the Friends and staff of the Five Mile Woods as well as citizens that expressed frustration with negative deer impact. He stated after listening to those concerns, his firm drafted goals that reflected the desired condition that was articulated. He stated they looked at the Five Mile Woods as well as other areas in the Township and confirmed that there was clear evidence of overabundant deer impacts to those ecosystems from an ecological perspective. He stated the negative

impact from deer effect not only plants and animals but the structure and function of the ecosystems. He stated there are also negative impacts to residential landscape and quality of life based on Lyme Disease and deer/car collisions.

Mr. Shissler stated how to deal with those impacts is a value decision. He stated where they typically see the most ardent views on this are from hunters who are anxious to assist in resolving the problem through recreational hunting as well as those who have a strong opinion about not harming deer. He stated they often hear that acid rain is the cause of the problem with vegetation; and while acid rain is a serious issue in terms of forest health in the northeast, they know that when there are exclosures erected in areas where there are deer impact problems, inside the exclosures there is abundant forest growth, and outside the exclosures there is not yet acid rain would be falling on both sides of the fence. Mr. Shissler stated this is also true with regard to exotic invertebrates. He stated there are numerous exotic earthworms in the Eastern U.S. and when those earthworms are throughout the forest and they put up exclosures, they find inside the exclosure there is abundant growth and outside there is not. He stated when there are a lot of deer, they eat a lot of vegetation and they have a strong impact within the forest ecosystem and gardens.

Mr. Shissler stated historically the deer populations were controlled by predators including large mammals and indigenous hunting cultures and this level of control has diminished and there is no longer a balance. He stated in communities like Lower Makefield today the only option available to resolve the problem is some form of human directed mortality.

Mr. Shissler stated the deer management goals outlined for the Township were to maintain white-tail deer as a valued component of the Township, but implement a restoration plan for mimicking the population-stabilizing effects of predation in order to protect, maintain, and restore the structure, diversity, and function of the Township's forest and open space. They also outlined a goal of reducing the probability of contracting Lyme Disease by reducing deer density, reducing deer/vehicle conflicts, and agricultural and ornamental damage. They also have a goal of managing deer in a safe, humane, and socially-responsible manner and to establish a permanent, quantitative monitoring program to assess deer impacts on forest vegetation.

Mr. Shissler stated they recommended sharp-shooting and know of no other method, given the circumstances in the Township, that can achieve these goals. They stressed that sharp-shooting has to be done properly with good design and good techniques and they have to avoid learned deer behavior. They also recommended independent compliance with effectiveness monitoring. They recommended using a contractor, who while doing the removal, is also willing to train local hunters to reduce long-term costs and to focus on larger blocks of Township property.

Mr. Shissler stated hunters have offered their services to the Township Officials, and his firm was asked to re-write the RFP to include hunting. They did this, the RFP was advertised, and proposals have been received.

Mr. Len Campbell and Mr. Joe Niterhower from Ecologix were present to review their proposal. Mr. Campbell stated he was recently with the Game Commission and feels that the Township made a very wise choice in Mr. Shissler as their biologist. He stated Ecologix has done work in Upper Makefield for the last few years and Upper Makefield is very similar in topography and habitat to Lower Makefield. He stated while they do have confidentiality clauses with some of their clients, one of their clients is the Heritage Conservancy and they manage a number of their properties which are deeded that allow hunting as they recognize the impact that white tail deer have on the understory. He stated they have noticed trends in areas along the Delaware River as the River is a physical barrier to deer and they will not cross unless they are forced to do so to escape so there are clients on both sides of the River where deer pile up against the River.

Mr. Campbell stated they did a baiting study this past year for the Pennsylvania Game Commission, and they will make this available to the Township. He stated baiting is an immensely useful tool for managing deer, but it will expire in 2010 so there is only one more year to do this. He stated he feels that Lower Makefield needs to address the deer herd now. Mr. Campbell stated they were notified by the head deer biologist that the Game Commission will not be renewing baiting in the foreseeable future although they made a recommendation that they renew it in their report to them.

Mr. Maloney stated Mr. Campbell indicated that there were some cases where there were confidentiality agreements, and he asked if they were corporate or private landowners that had these interests that they did not want expressed, and Mr. Campbell agreed there are a number of entities that do not want to draw attention to themselves and asked that they not be identified.

Mr. Campbell stated Highland Hill Farm is also one of their clients and it is one of the largest native tree nurseries in the area. He stated Highland Hill also assists them with plantings to put into the ground when they have done some of their assistance to the communities. Mr. Campbell stated they also manage a hunting club and they create opportunities for recreational hunting in Montana, New Mexico, North Dakota and other western States.

Mr. Campbell showed in his power point presentation archer data related to Upper Makefield, and he feels that this report could be provided to the Township. He stated they collect information based on criteria which they put into a format called GIS which is a computer-based program and allows them to layer different types of information and put it in one place. He stated in addition to observation time sheets, they collect information specific to the deer. He stated some clients ask that they take parasites off of

the harvested deer. He stated in Upper Makefield they collected jaw bones and weight. He stated jaw bones are used for aging deer and they also look at the wear patterns to show what the deer are eating. He stated the weight is only for them to compare against other trends to see where the population is in a particular area. He stated all of their participating archers have harvest report cards which are important as they need to get information to the State agency and this allows the State agency to get a better look at the herds in the specific management units.

Mr. Campbell stated while they do have the statistical information for 2008, the report has not yet been provided to Upper Makefield but in the near future, they could provide this information to Lower Makefield. He stated they do have the year one trends which was the 2007/08 hunting season. He stated they use recreational archers many of whom are present this evening. He stated they are very competent, and he feels the Township would get good service if they proceed with recreational archers. He stated Ecologix is putting together an excellent model, and as more people start to follow that model, it will benefit the community. He stated in 2007 they harvested 551 antlerless deer. He stated “antlerless” deer are classified as female deer or male deer that have not developed an antler in excess of 3”. He stated they also harvested in 2007, 17 antlered deer. He stated they force the hunters to harvest more antlerless deer than antlered deer, and they have minimum quotas where they go out and harvest the deer. He stated if you control the females, you can control the herd. He stated a male deer means nothing unless they are damaging nursery stock or creating a problem at an individual residence. He stated Lower Makefield’s problem is the visual barrier of the River and the roadways that indenture deer populations and the females that are going unchecked in those areas. He stated the first year they took 568 deer, and this is just the recreational program.

Mr. Campbell showed the Pennsylvania Game Commission’s statistics for Upper Makefield Township, where they compared antlerless deer versus antlered deer. The blue columns shown on the power point show the first year 2006/07, and since they did not have a Contract with the Township at that time, this is the baseline information. He stated the red bars to the right are the first year of the program. He stated the first year shown they harvested 87 antlerless deer and 31 antlered deer. He stated the first year of the program, recreational archers in the Ecologix program harvested 653 antlerless deer but only 47 antlered deer. He stated this is the secret to success and is the model that controls population. He noted Ecologix statistics which show 77% of the 423 antlerless deer were reproducing females. He stated they specifically targeted them. He stated this is not sharp shooting – it is archery. He stated 23% were male. He stated 443 of the deer were harvested by people participating actively as members of the Upper Makefield recreational component to the program. He stated 104 deer were harvested by people that they consider to be cooperative and were property owners who had their own hunters on their property. Mr. Campbell stated they do not believe in displacing hunters, and this is a decision that the property owner and hunter make, and they do not come in and ask

them to get off. He stated they do ask them to participate and they are a valuable resource to Ecologix.

Mr. Campbell stated archery is an accessible format for harvesting deer. He stated 93.2% of the deer they harvested in 2007 were harvested with bow and arrow. He stated 6.8% were harvested by shotgun on coop properties where the property owners allowed shotgun hunting. Mr. Campbell stated Ecologix does not authorize shotgun hunting unless the Township has enough room. Ms. Appelton asked how much room is needed in order to have shotgun hunting, and Mr. Campbell stated there are minimum distances that the regulations require, and for a shotgun the distance from where a hunter is to where a structure is, is 150 yards. He stated “shot” has a range beyond 150 yards, and when he worked for the Game Commission he made a requirement that people be back far enough so that the effective range of the gun did not enter the safety zone as well. He stated for archery, this is reduced to 50 yards which allows them to get very close to the deer. He stated deer do get educated, and they seek refuge in the areas which they can find which are alongside houses. He stated you can get inside of a safety zone and hunt off of a back porch if the property owners all agree that they will ease this zone. He stated the safety zone with written permission can be zero. He stated they do work with property owners and they screen the hunters to make sure that they are insured so that the property owners feel comfortable with the person they are bringing to them. Ms. Appelton asked if they would be able to use shotgun hunting in the Five Mile Woods, and Mr. Campbell stated size wise they would.

Mr. Campbell stated they have data on the number of deer harvested by property size. He stated statistical data they have collected shows that the smaller the property, the more successful they are. He stated half the deer they harvested were on properties that were ten acres or less. Mr. Niterhower stated 70 properties were enrolled in the program initially, and they are now at approximately 90 properties in Upper Makefield. He stated sixteen properties were less than two acres, nineteen were two to four acres, ten were five to eight acres, and nine were nine to twelve acres.

Mr. Campbell stated during their first year in Upper Makefield, they logged 5,483 hunting hours combined; and it took about 12 hours to harvest each deer. For every buck sited there were 3.6 does, and 2 tons of venison was donated to food banks in Philadelphia with Upper Makefield being the leading donator to Hunters Sharing the Harvest for 2007. He stated the Chief of Police has stated that as a result of deer harvesting efforts, accidents with animals went dramatically down for the reporting period by 65%. Mr. Campbell stated they looked at the statistical information from 2006; and in 2006 before they started the program there were 43 accidents, and this year there were only 8 accidents in the Township which is a 538% drop in the number of accidents. He showed a graphic on road kill pick-ups in Upper Makefield which went from 230 in 2006 to 129 in 2007 recognizing that they started the deer management program in the Township in September of 2007.

Mr. Campbell stated while they do use sharp shooting, they prefer to use archery. He stated while sharp shooting works, they feel the combined effort of sharp shooting and archery works best. He stated they do have a permit from the Game Commission in Upper Makefield Township, and after the hunting season stopped, they started harvesting deer under the sharp shooting Permit. He stated they will stop soon to allow the fawns to wean. They will then pick up again and stop with hunting season. He stated they are also working on a large riparian reparation effort along the Delaware River and were contracted by the Delaware River Greenway Partnership. He stated they are trying to save as many indigenous native plants as they can. He stated the stream bank corridors are being damaged beyond belief to the point where they will likely have to put in some type of vegetation. He stated they did install some deer exclosures in Upper Makefield Township, and it has been astonishing what vegetation has come back inside of the exclosures.

Mr. Fedorchak asked them to provide their fee proposal at this time. Mr. Nitterhower stated they were just notified that the Game Commission is implementing new rules and regulations; and at this point in time, they are not sure how the rules for sharp shooting will be changed. He stated the proposals they turned in to Lower Makefield were – sharp shooting, recreational hunt, and depredation/archery team hunts. Mr. Fedorchak asked that they provide the Board with the amounts for all three RFPs. Mr. Eric Shay was present and stated the two archery options they sent were for a recreational program at a cost of \$17,975 for fifteen archers going through their screening process and hunting on the Township-owned ground indicated in the RFP and a sharp shoot/specialist archery where five hunters would be selected under the depredation permit from the Game Commission to conduct the hunt on the Township-owned grounds. He stated the Game Commission is now saying that archery is no longer going to be allowed under the depredation permit so he does not feel the bid they submitted on this will be eligible. Mr. Nitterhower stated they are currently doing a depredation in Upper Makefield with archery equipment, but that permit expires in June. Mr. Nitterhower stated the final bid submitted to Lower Makefield was \$49,179.60 for year one for the depredation team and this was with their recommendation of only one sharp shooting team for the three properties that were outlined in the RFP. He stated they had considered \$67,179.60 for two sharp shooting teams but they believe that with just the three properties, they will only need one sharp shooting team.

Mr. Smith stated there was a pre-implementation fee of \$8,442, and he asked if this is in addition to the fees indicated, and Mr. Nitterhower stated it is included.

Mr. Caiola asked the size of the teams, and Mr. Nitterhower stated they have five people doing sharp shooting in Upper Makefield as this is all the Game Commission will allow on that Permit.

Mr. Fedorchak asked if they would be training others under the sharp shooting proposal, and Mr. Shay stated another one of the Game Commission's recent changes is that in order to be on one of the depredation permits, the sharp shooting permit, you have to qualify under two separate tests that the Game Commission administers – a wildlife pest control permit and a nuisance deer control permit. He stated in order for anyone to be trained to do that, they would need to pass those two tests prior to being trained by Ecologix to perform this duty. He stated if those to be trained have the certifications from the Game Commission, they will train them and the cost of training is included in the bid price. Mr. Fedorchak asked how many they would train assuming they do have those certifications, and Mr. Campbell stated they could train up to six. Mr. Maloney asked if the price would change if they are not going to do the training, and Mr. Shay stated it would drop down, and he would have to go back and revise this.

Mr. Fedorchak asked if there is a problem with the Game Commission relative to the first proposal – the recreational archery hunt, and Mr. Shay stated there is a small problem in that the Game Commission has now stated that there is no baiting on Municipal or State-owned ground. Mr. Fedorchak stated this would be less of a problem with the Golf Course because there are a number of properties surrounding the Golf Course which are privately owned, and he feels a number of those property owners would be willing to permit them to hunt there; but it will be a problem at the Five Mile Woods.

Mr. Nitterhower stated they did discuss this, and they suggested that they utilize all the landowners that want to participate who are surrounding the Township properties as you may bait on private property. He stated he does not know how many properties touch Five Mile Woods, but their statistics show that with the one or two acre properties, you can pull a lot of deer out of the woods by using bait.

Mr. Fedorchak asked about the depredation/sharp shoot approach, and asked if baiting is an issue as well, and Mr. Shay stated in that case you can bait on public property. These would not be recreational hunters participating in this.

Mr. Maloney stated it seems that for a sharp shoot, the variable is the number of days and there is no variable as to the number of deer harvested so the price is paid for a certain number of days and they get as many deer as possible. He stated in the case of the archery hunt the variable would be the program where there is a "co-pay" for the Harvest program so that is the only price in the bid that would vary depending on the number of deer, and Mr. Shay agreed.

Mr. Nitterhower stated he feels they should turn in another bid to use the recreational hunt and the combined sharp shoot hunt as one where they would be able to start the program as they did in Upper Makefield where they asked how many properties they felt would enroll, and Ecologix was given one month during which they talked to about fifteen landowners who wanted to enroll and they proceeded from that point. Mr. Smith

asked for an estimate of what that would cost, and Mr. Nitterhower stated for Upper Makefield they provided a “menu” and let them pick and they charged them according to what they picked. He stated Upper Makefield paid \$48,000 the first year. He stated he estimates that to implement everything in Lower Makefield it could cost \$80,000.

Mr. Maloney asked when they pursue archery hunts on smaller parcels, how frequently did they experience instances where the deer after being shot, traveled onto other properties that were not part of the program before they died. Mr. Nitterhower stated they had discussions with the landowners prior to the hunt who were interested in being in the program and then had discussions with their neighbors as well to find out if the deer were shot on the participating property and then ran onto their property, what they would want done. He stated they backed off any properties where the neighbors would not allow them to go onto their properties.

Mr. Fedorchak asked that Ecologix revise their proposal based on the information discussed this evening. Mr. Campbell stated he does have a meeting tomorrow with Senator McIlhenney, and he will raise some of the issues discussed this evening as well.

Mr. Dave Shuster from Big Oak White Tail Management Association was present. Mr. Len Wolgast, stated he is the consultant to Big Oak and is Professor Emeritus from Rutgers University and has been a professional wildlife scientist for forty-three years and has managed deer control projects throughout New Jersey. Mr. Dave Kimball was also present and stated he is a hunter/trapper and bow hunter instructor for the Pennsylvania Game Commission.

Mr. Shuster stated he first came before the Board two years ago when Mr. Shissler’s report was first published on the Township Website. He stated at that time he came before the Board as a taxpayer and local hunter and proposed to the Board that deer management in the Township could be done by local volunteer bow hunters. He stated this evening he is present representing the Big Oak White Tail Management Association, and they have submitted a formal proposal to the Township for deer control using archery hunters. Mr. Shuster stated they are a non-profit group comprised of experienced outdoorsmen, most of whom are local residents from Lower Makefield or local business owners. He stated they are willing to volunteer their time and expertise to the Township to provide a deer management program. They have affiliations with local clubs in particular the Falls Township Rifle and Pistol Association, which recently sent the Board of Supervisors a letter endorsing the Big Oak White Tail Management Association’s program, as well as the National Wild Turkey Federation. He stated they also have an affiliation with the United Bow hunters of Pennsylvania which is an organized group of archers who hold themselves to a very high standard. He stated they have the ability to identify and recruit qualified, proficient archers into their program.

Mr. Shuster reviewed the resumes and experience of a number of their members. He introduced Len Wolgast, wildlife consultant, who retired after thirty-four years of teaching wildlife ecology at Rutgers University. In addition to having retired from the Navy and being an independent farmer in New Jersey, Mr. Wolgast has authored over 100 publications and articles and sits on the New Jersey Fish and Game Council and is a consulting wildlife scientist for numerous deer control projects. He provided a list of some of the deer control projects Mr. Wolgast has been involved in.

Mr. Shuster stated their proposal would utilize local volunteer archers at minimal expense to the Township taxpayers. He stated this would be run under the normal Pennsylvania Game Commission regulations and utilize the longer archery seasons that are available to harvest antlerless deer in the area. This season begins in September and runs through January. He stated Lower Makefield Township falls within Special Regulations Area 5D which is a management zone. The Game Commission recognizes that there are deer issues in some of the suburban areas; and as a result, they issue deer permits so hunters can harvest extra female deer. He stated there are excess doe permits for the Township's zone. He stated the safety zone is reduced when you use archery and you only need to be fifty yards away from a building. He stated with the homeowners' written permission, you can be closer. He stated archery is suitable for smaller properties, and he feels Ecologix has proved in Upper Makefield Township that using bow hunters in a residential area is safe and effective. He stated the ultimate goal is to focus on the depopulation of female deer. He stated their intent is to mimic the population stabilizing effects of non-human predators on deer; and they will do this in a safe, humane, and socially-responsible manner. He stated the ultimate goal is to restore and maintain the structure, diversity, and function of the Township's forests and open space, particularly the Five Mile Woods. He stated they also aim to reduce the risk of contracting Lyme Disease and minimize deer/human conflicts such as deer/car collisions and agricultural and ornamental plant damage. Mr. Shuster stated they would also like to assist with establishing a quantitative monitoring program to assess the deer impacts on forest vegetation.

Mr. Shuster stated the properties identified in the RFP included the Five Mile Woods, Township property surrounding I-95, the Township Golf Course, and the program could be expanded with an emphasis on problem residential areas. He stated the key to the success of the program is to gain access to property so they would need to try to include eligible private property that surrounds the Township property. He stated they would meet with private landowners if they were interested in participating in the program, assess the property, secure written permission, and secure permission to recover deer from adjacent property as well and this would have to be in writing from the neighbors. He stated program participation does not authorize trespassing. Mr. Shuster stated they would also collaborate with any hunters already hunting on private property in the Township recognizing that there is some hunting which already occurs within the Township.

Mr. Shuster reviewed the screening process for the hunters selected to participate and stated they would need to possess a valid hunting license, be at least 21 years of age, and have at least three years experience hunting deer. They would also have a criminal background check with no Game Law violations and will require successful completion of bow hunter certification. He stated they would be insured through the New Jersey Federation of Sportsmen Clubs which is a \$1 million liability policy. They will emphasize the harvesting of antlerless deer and hunters must provide a minimum of eight full days to the program and agree to the hunt regulations and landowner agreements. They will also have a mandatory pre-Season orientation session. Mr. Shuster stated to recruit hunters, they would need to advertise the opportunity and qualifications in the paper and Township Website and Applications could be made available on the Township Website or at the Township office. He stated there would be a formal written application and interview process. He stated the number of hunters would be based on eligible property and they would use a lottery if necessary to limit the numbers. No hunter that is currently hunting on property in the Township would be displaced by this program and they would hope to be able to collaborate with those individuals. Township residents would be given preference if they meet all other qualifications.

Mr. Shuster stated they would implement mandatory safety standards. He stated in addition to the background check and bow hunter certification class, there would also be a proficiency test. He stated the Township could appoint a citizen representative to observe the tests if they desire. He stated the hunters would be interviewed and insured. All hunting would occur from elevated tree stands with the trajectory of the arrow being downward to the ground in a safe direction. Hunting will occur only during daylight hours. They will label and recover all of their arrows so that everything is accounted for. They will emphasize clean, ethical shots resulting in quick, humane death of the animals. Hunters not meeting the performance requirements will be rotated from the program or dropped all together.

Mr. Shuster stated while some of the deer will be kept by program hunters, they plan on using local deer-processing businesses. In addition they plan on promoting the culinary and health benefits of venison through educational outreach. He stated venison is a good example of an organic food as it is low-fat, low cholesterol, free range, and free from hormones. He stated they could also facilitate non-hunter sign up at a participating processor so that the Township residents could pay the processing costs and get venison to feed their families. They also plan to donate venison to Hunters Sharing the Harvest to supply area food banks.

Mr. Shuster stated with regard to effectiveness monitoring they would propose a plan in line with what Mr. Shissler has discussed. He stated the easiest thing to measure would be abatement of deer impact such as deer/car collisions and reduction of property damage and agricultural problems. The hunters will be required to keep logs on time in the field,

and observations of the number and health of the deer. The harvest data will also be able to establish the overall health, age, and reproductive rate of the herd. He stated Professor Wolgast has significant experience in analyzing the data that will be collected. He stated as older deer are removed from the population, there should be a shift in the age ratio of the herds and this would be a long term proof of effectiveness. He stated another long term goal would be a reduction in newly-reported Lyme disease cases, and they also hope to see restoration of diversity and sustainability to the forest eco-systems particularly in the Five Mile Woods. He stated currently in the Woods, the native plants and low-lying plants are gone. He stated as you reduce the deer browsing pressure, you should see an increase of reproductive success of native plants. Mr. Shuster stated they could collaborate with a naturalist or ecology student on this vegetative recovery or this may be a function of the Environmental Advisory Council to employ some of their expertise in monitoring the native plants in Five Mile Woods. He stated his group does not have this kind of expertise although they are willing to assist with program monitoring projects to measure forest regeneration such as building deer exclosures.

Mr. Shuster stated one of their expected benefits is herd reduction, and there are publications that indicate that the removal of one adult doe will result in three fewer deer the following spring. He stated they also expect a reduction in deer/car collisions and benefits to the native flora. Mr. Shuster stated since the Township has a Native Plant Ordinance, he feels this program would help insure that the native plants have the ability to regenerate.

Mr. Shuster stated there has been some debate as to whether removing white tail deer from the population actually impacts tick distribution, and he stated there are a number of publications that show that the ticks do correlate with deer and reducing the deer density reduces the risk of humans contracting Lyme disease.

He stated if they were to be selected for the program, they would provide a report with the objectives, the hunter selection criteria, description of the field operations, and break down of the harvest including the deer sex, weight, and age. He stated they would also monitor hunter hours, hunter numbers, and average deer killed per hunter. They would also be able to track deer/car collisions. Mr. Shuster stated in their proposal they noted they could provide an optional aging method which would be to collect the primary incisor from the deer which would then be sent to a lab for analysis to show the age; although they could also just indicate age as being fawn, yearling, or adult.

Mr. Shuster stated the cost to the Township would include a Hunting Sharing the Harvest Donation of \$3,000 subject to change depending on how many deer are actually donated. He stated Professor Wolgast has estimated his expenses not to exceed \$5,000, administrative costs would be \$2,500, equipment \$400 such as scales and refrigeration, hunter identifications would be \$250, registration for the organization with the New Jersey Federation of Sportsmen Club which is an annual fee of \$35, printing of the final

report would be \$200, and the optional aging for the deer teeth would be an additional \$8 to \$10 per deer. Expenses should total approximately \$15,000. Mr. Shuster stated not included in that cost is the cost for the hunters as this is the personal investment of the hunter which is not billed to the Township which would include the License and doe tags, the bow hunter certification classes, the background check, the proficiency testing, insurance, any equipment, and the Hunter Sharing the Harvest co-pay fee of which the hunter will pay a portion. There is also no charge for the time of the hunters as the local volunteers are willing to donate their time and expertise to the Township.

Mr. Shuster stated while there are a multitude of practices for population control and behavior modification, the removal of animals from the population – specifically adult females – is the only effective way to impact deer numbers. He stated hunting is a practical and economical way to accomplish this. He stated the Audubon Society recently went on record in strong support of hunting as a means to bring deer into balance with their habitat adding that hunting is currently the only feasible method of regulating deer population on a large scale. Mr. Shuster stated Big Oak White Tail Management Association can provide the people, time, and resources for a program in Lower Makefield.

Mr. Fedorchak asked if the Pennsylvania Game Commission prohibition of baiting on public land will create a problem. Mr. Kimball stated it may hamper the process to a degree but predicated on the properties they are looking at and the number of hunters they would use, he feels they would still be successful. He stated he knows some of the properties adjacent to the Five Mile Woods in particular, and he does not feel this would be a major obstacle. Mr. Fedorchak stated he assumes they would still prefer to use bait, and Mr. Kimball agreed. Ms. Appelton stated it appears they are saying they would rely on being able to hunt in private land getting the approval of those property owners. Mr. Kimball stated the smaller parcels are probably always going to be the most successful, but he still feels there would be success on the public land without the use of bait. He stated they are looking at the overall harvest, not just the harvest on one particular property.

Mr. Wolgast stated the baiting issue is a Nationwide issue and many States are stopping baiting because of chronic wasting disease which is a very serious disease. He stated when you concentrate deer on a bait pile, disease can be passed from one animal to another. He stated there are also a number of recent papers that show that baiting is not that effective in increasing harvest. He stated he does feel that on small properties where you want to bait deer from an area to where you can shoot them, bait can be helpful.

Mr. Maloney asked if working on these large parcels as a starting point is still an effective means to proceed, and Mr. Wolgast stated it is. He stated there are a number of environmental groups that formally opposed hunting such as the Audubon Society and the Nature Conservancy and they have all bought into the need to control deer and most of them do not know how to do so and he has been trying to help.

Mr. Maloney noted the figure of \$3,000 in the proposal and asked how many deer would be part of this total; and Mr. Shuster stated it would be \$60 per deer so they feel they could take fifty deer the first year.

Ms. Appelton asked how often do injuries or accidents occur to hunters or innocent bystanders. Mr. Wolgast stated in New Jersey they have been bow hunting for many years with 55,000 bow hunters and 8 million residents, there has never been a single incident of a non-participant in bow hunting being injured by a bow hunter. Mr. Kimball stated the Neshaminy State Park has had a hunt since 2004; and the Park remained open to the public while the archery hunt was taking place, and the Manager indicated that there has never been an incident. He stated this included non-certified hunters. He stated all the archers they would use would have bow hunter certification classes and would be certified archers who have taken the extra step of a non-mandatory course.

Mr. Smith asked the range of sharp shooters. Mr. Shuster stated professional sharp shooters under the special permit would be allowed to use a center file rifle, and the range could be miles. He stated the effective range of a bow would be 30 to 40 yards, and they would be clearly identifying the target. He stated a rifle shot would travel much farther. He stated in Pennsylvania with a firearm there is a 450 feet safety zone for a shotgun. Mr. Kimball stated predicated on the caliber in a center fire rifle you are using, the distance will be different. He stated if they used a 223, a downsized bullet would have a capability, if unimpeded and fired in the proper trajectory fashion, of four to five miles. He stated with a bow your maximum range in a hunting situation is probably 30 yards.

Mr. Smith asked about reported incidents using sharp shooting weapons, and Mr. Wolgast stated where they have used sharp shooting in New Jersey, there has never been an incident.

Mr. Ryan Rodts of White Buffalo was present. He stated with regard to the baiting issue, if baiting was not an effective tool, he would not have a job. He stated baiting is not as effective if everyone is baiting. He stated if you are the sole person baiting, the deer will concentrate at your bait pile. Mr. Rodts stated White Buffalo is a non-profit wildlife research organization that specializes in suburban deer management through non-traditional techniques. He stated they use revenues generated through their deer management control activities to provide conservation research. He reviewed the extensive experience of their field staff. He noted he has also participated in studies critical to the research related to a wildlife immunocontraceptive pharmaceutical which is pending registration. He stated their business portfolio is a twenty-two page document outlining their extensive experience over the past thirteen years. He stated they have conducted sharp shooting programs in twelve states, removed over 8,000 deer with no incidents or accidents, and their success rate is 100% in achieving goals outlined before the program was initiated. He stated they have donated over 185,000 pounds of meat in

thirteen years. He stated in programs where they have a maintenance level of removal effort, they have seen an 80% to 85% reduction in deer/vehicle collisions.

Mr. Rodts stated they are actively involved in wildlife research specifically using immunocontraceptive agents to control population of white tail deer and have participated in two EPA/FDA Phase II studies. He stated they have conducted research on effect and practicality of several immunocontraceptive agents. He stated they have provided consultation, training, and hunt management to thirteen states and three law enforcement agencies. He stated they have taught shot selection, use of tree stand methodology and vehicle methodology for removals, and they also conduct International research and management. He reviewed some of the International programs they have been involved in.

Mr. Rodts stated their approach to suburban deer management is to prevent aversion behavior which is critical and is the number one reason for failure. He stated if you get to the point where deer are leery of management activities, the program will fail. He stated they will not reach a goal density of twenty-five to thirty deer per square mile which is the point where you sustain very little habitat degradation. He stated it is important to keep the deer population naïve. He stated they use the American Veterinary Medical Association guidelines on humane euthanasia; and approximately 95% of the animals they dispatch are shot in the center of the brain. He stated the other 5% are shot in the cervical spine and they only use that technique when their head is obstructed by vegetation. He stated with archery techniques, you cannot euthanize animals, although you can minimize the time of death and you do this by screening hunters for proficiency and judgment. He stated this also reduces the incidents of wounding.

Mr. Rodts stated for their sharp shooting site selection, they utilize aerial photography to determine bait site locations, and then check on the ground to verify that there are no new structures, walking trails, or any risk to human safety as safety is paramount in all of their programs. He stated they use bait as a leverage tool to move their activities to a more suitable area for herd removal out of the public view.

Mr. Rodts stated they have a ten year commitment to develop equipment and techniques used in non-traditional, suburban deer management programs. They have done extensive ballistics and bullet testing, baiting techniques, and strategic use of bait to lure animals. They have developed weapon light attachment systems. He stated being able to attach white light to the weapon system is critical to having a good field of view and depth perception.

Mr. Rodts stated if the Township wishes to use both archery and sharp shooting techniques, these two methods are not always compatible when used in the same area. He stated the deer become very wary of human activity when they are harassed over bait and the key to their success is being able to remove groups of animals instead of

individuals. He stated with archery techniques or recreational hunting, only one or two animals out of a group are able to be removed and the other animals are then witnesses to the events which just occurred. He stated this negative reinforcement impacts your efficiency long term and eventually you get to the point where deer do not come to your bait site. Mr. Rodts stated initially it would be preferable to use the two methods in non-overlapping areas. He stated based on the change in Legislation, it may be difficult to train additional sharp shooters. He stated they would need a place to be able to demonstrate techniques and tools and you do not want to do this over deer that have been educated to the removal process.

Mr. Rodts stated the archery portion of their proposal is small and with the elimination of bait on Municipal properties, it will affect the performance. He stated they would evaluate potential participants for efficiency and judgment. They will use an elevated platform to test for proficiency as this most closely mimics actual field conditions. They also emphasize appropriate safety equipment and have a list of equipment they recommend for use in the field. He stated if you violate one of their safety policies, you are out of the program.

Mr. Rodts stated they would keep a weekly record of age, sex, and harvest location by participant. He stated in most of the hunts that are conducted, there are a very few individuals that remove the majority of the animals. He stated in Upper Makefield eight hunters removed 21% of the deer. He stated those are the individuals you want to identify and encourage their participation in the program as much as possible.

With regard to their sharp shooting methods, Mr. Rodts stated discretion and safety are the most important when considering site selection. He stated they use aerial photography to identify areas that are conducive to their activities. He stated they can also map relative distribution and then check on the ground. They use a three week pre-baiting period and this conditions deer to come into the bait site and this increases the efficiency of the removal efforts. He stated they use suppressed, 223 match-grade rifles. He stated when shooting from a tree stand they try to get thirty feet up which insures a steep angle of trajectory. He stated they use topographical relief when shooting from a vehicle to insure that they have an earthen embankment.

Mr. Rodts reviewed the training and they would have an assessment of firearm handling and safety at a range. He stated individuals who pass the assessment will then be demonstrated training drills specifically for sharp shooting deer and once they have mastered those techniques, the trainees will observe all phases of the project with employees of White Buffalo to gain an understanding of the program and participants will then be transitioned into conducting sharp shooting activities with stringent oversight by White Buffalo personnel.

Mr. Rodts showed a comparison of the efficiency of different methods using case studies from Upper Makefield and a sharp shoot White Buffalo conducted in Ohio in 2005. He stated both communities had similar characteristics apart from deer density. He stated in Ohio they had 60 deer per square mile when they started and the data he found on Upper Makefield indicated 166 deer per square mile in Upper Makefield. He stated this seems extremely high but was provided by a Township official. He stated with sharp shooting techniques it took four shooters 740 stand hours to remove 602 deer which is 1 hour and 15 minutes per deer removed. He stated this compares to the archery program in Upper Makefield where it took 25 active archers 5,438 hours to remove 568 deer which is 12 hours per deer. He stated assuming the 166 deer per square mile is correct, then 568 deer is only a 18 1/2% reduction in the herd and at that point you are not keeping up with reproduction. He stated if you assume that the 166 deer number is excessive and you reduce that in half so that you would have 85 deer per square mile, this results in a 35% reduction in population and at that point you have stabilized or marginally reduced population. He stated if you compare this to their program in Ohio, at 60 deer per square mile you would have 1,200 deer which would equate to a 50% reduction in deer.

Mr. Rodts stated the White Buffalo approach will be the most efficient, safest, and humane solution to the management challenge.

Mr. Caiola asked about the discussion of shooting from a vehicle to make sure there is something behind the deer when they shoot; and Mr. Rodts stated they use topographical relief to ensure an earthen embankment. He stated if the deer has no topographical relief behind it or there is some kind of obstruction, they would not shoot. Mr. Stainthorpe asked why they are shooting from vehicles, and Mr. Rodts stated it is a very effective technique; and you can manage deer at multiple bait sites in a very short amount of time working from a vehicle. He stated if you work at a stand location, you rely on the deer to come to you. Mr. Stainthorpe stated he assumes they drive to the bait site and then stop the vehicle. Mr. Rodts agreed and stated they use a three-man crew when they are sharp shooting from a vehicle – a driver, a spot lighter, and a shooter. Mr. Maloney stated he feels this would be difficult to do in Lower Makefield because the two primary sites are Five Mile Woods and the Golf Course for which there would be no vehicular access to any tangible bait sites. Mr. Rodts stated they have conducted vehicle sharp shoots on numerous golf courses and the topography is conducive to this because of the sand berms and embankments. Mr. Maloney asked if the Golf Superintendents are in favor of driving cars on the Golf Course, and Mr. Rodts stated they have worked on PGA Courses.

Mr. Stainthorpe asked how many deer they would anticipate they could harvest in the first year, and Mr. Rodts stated they would remove deer over a two-week period, but the major emphasis would be on training other individuals. He stated typically they would anticipate removing ten to twenty deer per evening.

Mr. Smith asked about the costs in the proposal. He stated it appears there was a two-year program. Mr. Rodts stated he did not put together the Budget. Mr. Smith stated it appears that for year 1 the anticipated cost would be \$58,390 and year 2 would be \$16,700. Mr. Rodts stated based on the data he was provided, this would be correct. He stated the difference between the first and second year would be the biologist is not in the second year, and there would be less training. Mr. Maloney asked why there would be a biologist the first year and not the second, and Mr. Rodts stated he believes that in the first year, there would be two people for fourteen days, but only one person for seven days in the second year. Mr. Maloney stated it appears that the first year there are two senior scientists and two biologists. Mr. Rodts stated the site visit consultation would be two separate time periods. The second year the only personnel would be the senior scientist, and at that point they would be transitioning it over to the trainees. He stated this was put together under the assumption that they would be training local individuals to take over the sharp shooting, and White Buffalo would be used more as a training tool than an actual removal tool. They would hope by the second year that the trainees would be conducting most of the work, and White Buffalo would only come in to further address any skill needs. Mr. Maloney stated he feels it would be a fair expectation assuming that the regulations are going in the direction they are currently heading, that training sharp shooters would become a non-viable option, so that the first year Budget would probably be what they would expect on an on-going basis; and Mr. Rodts agreed. He stated if you cannot train sharp shooters, a lot of the assumptions made in the proposal are invalid. Mr. Maloney asked that they prepare a contingent budget that contemplates what the costs would be if they were not given an option and are required on an on-going basis to have White Buffalo personnel be the removal tool.

Ms. Appelson stated Mr. Rodts had indicated that he participated in immunocontraceptive trials, and asked that he comment on the effectiveness of those methods. Mr. Rodts stated there is one immunocontraceptive agent that is pending registration and first year efficacy is 50%. He stated in order to get a population level impact you need to be able to capture 90% of the adult females in the population, and this would be extremely hard to do in a Township the size of Lower Makefield. He stated if you captured 50% of the animals and inoculated them, you would still have 50% of the animals reproducing. He stated although it can be effective, it is on a very limited basis. Mr. Maloney stated he feels they would need to monitor and manage the entire population in a single area which would not really be the case for the Township as they would need to repeatedly try to capture 90% of the population and inoculate them and also do so in every geographic location in order for it to have its intended effect as there is no fence to keep them from migrating. Mr. Rodts stated most of the field trials that were conducted were on fenced, corporate campuses or research facilities.

Mr. Maloney asked if the studies included the safety considerations in a State like Pennsylvania where people could harvest the deer and consume the meat, and Mr. Rodts stated this will be part of the Phase III trials.

Mr. Caiola asked if he has a sense of the cost per deer for inoculation recognizing that they would have to do this on a repeated basis, and Mr. Rodts stated capture costs in the programs they have implemented have been about \$1,000 per deer and it is extremely difficult to re-capture the animals particularly on a site the size of Lower Makefield.

A short recess was taken at this time. The meeting was reconvened at 10:00 p.m.

Mr. Verne Smith and Ms. Barbara Pearl, Jenny Drive, were present. Ms. Pearl stated their presentation was designed for the Board on behalf of thousands of Lower Makefield residents who are frustrated with the lethal tactics of many of the politicians and the lack of information available for living with deer. She stated they will present an overview of proven, cost-effective solutions that can be used now to resolve concerns and provide information on other solutions being developed for the near future. She stated they have submitted a resource binder to the Township. She stated they know that killing does not work or resolve these issues from the hundreds of e-mails and calls they have received. She stated they have considered the following in their report: public safety, study grant, deer/car collisions, Lyme disease, vegetation, and woods/understory. She stated none of the non-lethal options were investigated or considered in the Shissler report other than one kind of fencing and deer whistles. She stated there is outstanding science to support non-lethal options and they will prove that they deserve more time for study and that they be given a full and fair evaluation. She stated there is no data on the number of deer in the Township in the Shissler report, and she asked how a decision can be made that at least 200 deer must die. She noted Mr. Shissler indicated on Page 11 of his report that technology exists to get an accurate count of the deer, and she questioned why this has not been done. She stated Mr. Shissler has indicated that one of their goals should be to maintain deer as a valued component of the environment, and she asked how many deer would constitute a “valued component.” Ms. Pearl stated they have only heard from the hunting side which she feels presents a personal bias. She stated the right to be heard is fundamental to participatory Democracy, and this right was denied to the advocates of non-lethal options.

Ms. Pearl stated the problem with the Shissler report is that it begins with the conclusion that the deer must be killed, and he did not begin with the question how could they best mitigate the Township’s conflict with deer. Ms. Pearl suggested that the Township target solutions to those who need it the most including the farmers, the understory at Five Mile Woods, and high risk areas for deer/car collisions with non-lethal options. Ms. Pearl also asked why they are using taxpayer dollars to subsidize a deer kill for what is essentially a property-management issue which they feel can be resolved with non-lethal options which they will present.

Ms. Pearl stated they feel hunting is a bad idea because of public safety, residential community, liability, expensive, and compensatory rebound. She stated their first concern is for public safety, and a hunt does not belong in a residential community and

they do not want to turn Lower Makefield into a “war zone.” She stated hunting accidents will increase the Township’s exposure to liability to person and property driving insurance rates higher. She stated this is a family community, and she asked that the Board take responsibility for the message that is being sent to the children that shooting solves problems. She stated the cost of the hunt will polarize the community and there have already been bitter and spiteful comments. She feels they can help mitigate the conflicts with those who need it the most with non-lethal options that will unite the community.

Ms. Pearl stated compensatory rebound is a fact that has not been addressed and noted particularly Tyler State Park which has had to have a deer hunt for twenty-three years in order to manage the deer. She questioned why they need to do this every year if hunting is so effective. Ms. Pearl stated they have provided scientific studies in the binder that prove that deer which are hunted will compensate by breeding younger and faster. She stated they will also provide this evening another hand-out from the College of Veterinary Medicine, University of Florida.

Ms. Pearl stated the number one reason to choose non-lethal options is public safety. She stated while one of the speakers this evening indicated there are no accidents, there are volumes of literature about how hunting is dangerous and she reviewed a number of articles about hunting accidents. She noted Page 27 of Mr. Shissler’s report and stated the Permit will abolish safety zones. She noted Page 45 of Mr. Shissler’s report which indicates the Permit allows hunting day or night. Ms. Pearl stated over fifty sites were identified, and she asked where they are. She stated if safety zones are abolished, a hunter could theoretically shoot into the rear yards of residential areas. Ms. Pearl stated the Board of Supervisors must also consider liability and determine who will pay if a bullet or arrow hits a person, property, or pet. She also asked if Mr. Shissler has ever recommended non-lethal options to a client or if he has a client who has stopped shooting after two years.

With regard to deer/car collisions, Ms. Pearl stated the Township does not appear to have any data about deer/car collisions; and the number of accidents may have decreased. She stated up to 90% of Federal Grants for Strieter-Lite technology that other communities have successfully used, produced 75% to 100% success rates for deer/car collisions. She stated Ms. Broadway will discuss the Streiter-Lites later this evening. Ms. Pearl stated she did contact one of the traffic engineers listed on the Streiter information sheet, and he has installed several of these which have been very effective. She stated information on this is included in the binder which was provided.

Ms. Pearl stated public education is also a critical part of the non-lethal options. She stated the public must assume responsibility and there should be free seminars and literature on Lyme Disease awareness and prevention, how to deer proof gardens, and safe-driving tips which could be included in the driver educations for school students.

Mr. Verne Smith stated immunocontraception is another option, although they do not feel this would be needed given all the other options they have provided in the binder. He stated they have been given a commitment of \$10,000 to study this option. He asked that the Board of Supervisors follow up on the recommendation made by Mr. Shissler on Page 23 of his report where he recommends that advocates of this option should be able to present recommendations to the Board as to how to study this option and how it would be deployed; and he feels with \$10,000 this would go a long way toward this. Mr. Smith stated he has also been advised that the Game Commission would allow Lower Makefield to deploy this option in the Township. He stated he would need time to study and present this recommendation to the Township; and they would prepare the feasibility study using the \$10,000 which they will have transmitted to the Township for this purpose.

Ms. Appelson stated Mr. Rodts indicated that the immunocontraceptive is pending registration; and Mr. Smith agreed but added the Game Commission could, if petitioned and presented properly with a proposal, allow the Township to use it on an experimental basis.

Mr. Verne Smith stated he would dispute the comment made by the White Buffalo representative, and stated it is not necessary to capture the deer. He stated the deer can be darted, and the dosage costs approximately \$25, and they can be tagged so it is clear which deer have been inoculated. Mr. Ron Smith stated the White Buffalo representative indicated it would cost \$1,000 per deer, and Mr. Verne Smith stated this is because it would cost this much if they wanted to capture them, and he does not feel it is necessary to capture them. He stated their feasibility study would give the Board all of this information.

Mr. Verne Smith stated there was a comment made about the impact on vegetation, but added killing some of the deer will not stop the remaining deer from eating the plants. He stated the more deer they kill, the more deer will be breeding younger and faster so that once they start killing deer, they will have to continue to kill them. Mr. Smith stated there are proactive ways to help with this using fencing which is the most effective approach. He stated Mr. Shissler only addressed one kind of fencing in his report. Mr. Smith provided a hand out on a number of different kinds of fences which could be deployed. He stated fencing combined with repellents would be very effective, and he provided a hand out on repellents as well. He stated another part of the public education component would be to provide information on planting responsibly as there are many different kinds of deer-resistant plantings which will not invite deer into the residential yards.

Mr. Verne Smith stated deer do not cause Lyme Disease. He stated there is also no data on the incidence of Lyme Disease in Lower Makefield so they will not know once they kill the deer that the incidence of Lyme Disease will be impacted. He stated the

information submitted to the Board included many studies that establish that killing deer does not reduce the incidence of Lyme Disease, and instead will increase the amount of food and cover for numerous other species that are carriers of the black-legged tick and killing the deer will escalate the spread of Lyme Disease.

Mr. Verne Smith stated the Five Mile Woods was given to the citizens of Lower Makefield for their quiet use and enjoyment, and he feels hunting by its very nature will do violence to the terms of the conveyance. He stated there is no good base line data on the number of deer in Five Mile Woods; and while they have the technology to do accurate counts, they have not done this. He feels this needs to be done before they begin shooting the deer. He stated Five Mile Woods borders a very densely populated area and this should be considered from a liability standpoint. He questioned who would pay for a tragedy if something were to happen. He stated one of the RFPs indicated that some of the contractors might carry \$1 million insurance policy, but he does not feel this would be sufficient were someone to be killed.

Mr. Ron Smith stated they had discussed the impact of acid rain, and Mr. Verne Smith stated acid rain has been identified as a significant contributing factor in the entire Eastern United States. Mr. Maloney stated they received an e-mail last evening from the Five Mile Wood Naturalist discussing the significant amount of vegetation inside the enclosure as opposed to outside the enclosure, and acid rain would be falling on either side. Mr. Verne Smith stated the enclosure he is referring to is a perfect example of what could be done with creative fencing. Mr. Maloney asked if they want to fence in the entire Five Mile Woods, and Mr. Verne Smith stated he would like them to look at this alternative. Mr. Maloney stated he does not feel they would be able to pay for the cost of this in their Budget. Mr. Verne Smith stated he does not feel it would be that costly of an alternative. He stated he feels they could continue to dialogue with the Naturalist of the Five Mile Woods to consider some of these more creative options.

Ms. Pearl noted an article she has from the Humane Society of United States which indicates as forests mature, they become more monolithic. She stated there are studies which could be pursued to protect certain vegetation without killing deer, and they could pursue this with Mr. Heilferty.

Mr. Verne Smith stated he feels little has been done to look at non-lethal options, and he feels this “arsenal” of non-lethal options he has presented will go further in the long run to resolve the conflicts with deer without killing them.

Ms. Pearl stated hunting is not a solution to the problem but a commitment to a permanent problem. She stated they have started to collect over 200 signatures of those who have signed a petition opposing a hunt in Lower Makefield and who are in favor of non-lethal options. Ms. Pearl stated Mr. Fedorchak had indicated that there are people who live near the Golf Course who would allow the hunters to hunt from their property,

but she stated there are also people who live there who are opposed to this and have signed the petition. Ms. Pearl stated suburban homeowners should expect to have some contact with wildlife, and they may need to change their own behavior to find ways to live with the wildlife. She stated there are many non-lethal ways to keep damage to a minimum, and their goal is to provide to the Board information on the best ways to make this happen. She stated the Board has not given non-lethal its due diligence nor a fair hearing, and they have only heard from the hunting side. She stated the advocates of safe and non-lethal options have been denied their right to be heard which is fundamental to participatory Democracy. She stated consideration of non-lethal options is not a sign of inaction, but is pro-actively seeking the best solution for Lower Makefield Township. She stated a hunt does not belong in Lower Makefield. She showed two photographs of results of a deer hunt. She stated the Board is entrenched in the killing paradigm; and while she recognizes there is pressure to do a quick fix, hunting has been proven not to be safe or effective. Ms. Pearl stated if residents are given a choice, she feels they would vote for non-lethal options, especially if they understand the positive impact this will have on the community.

Mr. Maloney stated it is not the Board's intention to make a decision this evening particularly in light of the fact that pricing has not been finalized in a number of the RFPs.

Mr. Dave Vetter, Sandy Run Road, stated he is a hunter but not an archer. He stated he is against spending tax dollars on any method of managing the deer herd, especially a sharp shooter. Mr. Vetter stated many of those present have opinions on how to manage the deer based on their emotions or beliefs. He stated they need to consider the interest of the Township residents and the deer themselves. He stated they must consider what is best to maintain a healthy, natural deer herd size. He stated with no natural predators in the area, the deer, if left alone, would breed themselves into starvation. He stated although many present believe they are doing what is best for the deer, the decision should be made without bias, using the most reasonable means, the safest way, and considering the health of the deer herd. He feels the best person to provide advice on how to manage the herd, would be someone who is not emotionally involved in the decision and who does this as a profession for the State of Pennsylvania such as the Pennsylvania Game Commission. He stated they have done studies similar to those that people present this evening want to pay to have done again. He stated he contacted the Game Commission about attending this evening's meeting to share their expertise on the topic, and they indicated while they would be willing to send someone, they would need to be invited by the Township Supervisors. He stated he cannot believe that there are people present this evening who will not admit that the size of the local deer herd is too large for the area available for them to live in naturally. He stated he has been a resident of Bucks County his entire life and in years past prior to significant development; the size of the herd was kept in check by hunting. He stated the size of the deer herd is now a problem and needs to be reduced.

He stated once the herd is reduced to a more natural number which the remaining area for them to live in can support naturally, then maybe other non-lethal methods may work. Mr. Vetter stated some have indicated that a hunt of any kind would be unsafe and that the residents would be in danger and have mentioned shootings that occur “every day” from hunting accidents, and he asked where this information came from. He stated there was only one fatality in Pennsylvania in 2007 which was a self-inflicted injury. He stated there has been only one fatality during archery season in Pennsylvania since records were kept and it occurred in 1985. He stated the only fatalities in Pennsylvania in recent years due to hunting accidents have been with a rifle or handgun neither of which would have happened if archers had been used. He stated no group or organization has contributed more to the management of the deer herd than hunters.

Ms. Jean Broadway stated the Strieter-Lites are something for which they can get 90% funding. She stated she has information available from those who have used them, and they have agreed to speak to the Township representatives on their experience with them. She stated one individual involved in this has indicated there has been up to 95% reduction in deer/car hits when the Streiter-Lites are used in high impact areas. She stated they are not difficult to maintain; and if they get 90% funding whether they have a hunt or not, she feels they should still use these to try to stop the deer/car collisions. She provided information to Mr. Fedorchak this evening. Mr. Stainthorpe asked who would pay the 90% cost, and Ms. Broadway stated they are Federal funds. Ms. Broadway stated she is not anti-hunting, but she would like the Board to give them additional time to look into non-lethal options.

Mr. Marcus Barth stated he feels the Board needs to be fiscally responsible, and they have heard numbers ranging from \$15,000 to \$80,000. He stated Township revenue streams are down and the investment income is marginalized, and they need to be reasonable with their expenditures as they do not have discretionary funds at this time.

Mr. Fran Gallo, Dickenson Drive, stated they heard about the qualifications of a number of the speakers this evening and asked the qualifications of Mr. Verne Smith and Ms. Barbara Pearl. Mr. Verne Smith stated they would be happy to provide this at a future date. Mr. Gallo stated he has lived in the Township for seven years, and both he and his son contracted Lyme Disease. He stated the Bucks County Health Department does have figures on the numbers and indicated the numbers were skyrocketing and it was attributed to the deer population. He stated he has a half acre property and the amount of sick and mangy deer running through his neighborhood is disturbing and presents a safety concern. He stated he has also personally witnessed four deer/car collisions on the corner where he lives. He stated at least two of the accidents involved children in the car, and the Police had to be called to “put the deer out of their misery.” He also noted someone he knows who was killed in a deer/car collision. He stated immunocontraceptives do require FDA approval, and he is surprised that people are advocating putting this material out into the public, not knowing the full effects.

He stated he does not feel sharp shooting is hunting as sharp shooters are highly-trained “surgeons” and are very expensive. He stated he feels they should proceed with a controlled archery hunt using the local archers. He stated the archery hunters he knows take it even above professionals. He stated he is a certified safety professional and you look at severity and probability as a measure of risk, and archery has almost zero of both. He stated they are effective at 20 to 30 yards and they would be shooting down with their arrows. He stated the sharp shooters are using bullets which could be deflected by a blade of grass, wind, etc.; and while he is not opposed to guns used in Lower Makefield, he is for the responsible use of guns, and he does not feel they should entertain sharp shooting in the Township.

Mr. Jim Bray, 12 Terracedale Road, stated he feels they can do a better job living with each other and the animals. He does not feel they have the right to kill the deer because they are found to be inconvenient. He stated the Board should consider the legacy they wish to leave – a perceptual killing cycle or one of humaneness. He stated in Newtown, they are involved in a perpetual killing cycle and have been doing this for twenty years. He asked that the Board reject the simplistic, expedient solutions and work hard to find a humane solution to this very difficult issue. Mr. Bray stated he knows Lower Makefield has an environmental conscience and he is hoping that they have a heart as well.

Mr. Gary Cruzan reviewed the number of guns he owns. He stated you must be a precise shot with a 223 and it is not what would be considered a deer rifle. He stated it is a high-powered rifle and could shoot across the Township in approximately one and a half seconds. He stated he does not feel the Chief of Police should allow anyone to shoot a 223 in the Township. He stated arrows will bleed an animal to death. Mr. Cruzan stated he does not feel the Township can afford even one accident if they authorize a deer hunt. He asked if it is worth it to the Board of Supervisors to have this liability.

Mr. Bob Lambert, 340 Flint Court, asked if all the organizations that made presentations tonight, including those representing non-lethal solutions, were asked to submit RFPs. Mr. Maloney stated the RFP that was bid out covered archery and sharp shooting only. Mr. Lambert stated while he understands the emotions of taking the life of an animal, it is also very disturbing to watch animals starve if they are not managed properly. He stated in all the presentations made, no one came up with a case involving an accident in this type of hunt with qualified individuals. He stated the hunting groups do carry liability insurance. He stated with regard to the yearly hunt conducted at Tyler Park, it is true that deer reproduce every year; and the idea is to maintain a desired level. He stated all presentations for lethal methods stressed safety, being humane to the animal, and cost. He stated the Big Oak White Tail Management Association is very interested in doing this for the Township using local residents who have an interest in the community.

Ms. Sue Herman stated it seems like if they go with a hunt it is something they will have to commit to annually, and she feels it would be wise for the Board to learn more about the re-bounding effect that the non-lethal advocates have described. She feels it would be better to hear more from the non-lethal advocates, and she is sure many of these methods could be implemented simultaneously throughout the Township. She asked if the Board would be willing to have a subsequent meeting with these individuals so they can present a strategy for implementing non-lethal methods Township wide.

Mr. Virginia Torbert, Citizens Traffic Commission, stated they believe that a targeted driver education awareness program could be more effective in reducing deer/vehicle collisions; and as part of their safe driving initiative, they intend to include information on this. She stated she has done a lot of research on deer/vehicle collisions and has not found any hard data on the reductions cited. She stated in 2006 an Insurance Institute for Highway Safety study found that 60% of people who were killed in deer/vehicle collisions were not wearing seat belts at the time and 65% of those killed on motorcycles were not wearing helmets. She stated the Erie Insurance Company has studied deer/vehicle collisions for ten years; and they have recommended a number of strategies that drivers can use to prevent collisions or mitigate their effects. Ms. Torbert stated her husband, Harry Torbert, owns the Torbert Farm which is across the street from the Patterson Farm. She read a letter from her husband reviewing his history of living on the Farm and stating he does not believe that deer are overabundant on his farm and he has not done anything to discourage their presence. He indicated that any claims of more than minor damage to crops grown on his farm are speculative and likely grossly exaggerated. He does not allow hunting of any kind on his farm and he considers hunting by bow and arrow particularly cruel. He indicated that if the Township decides to engage in any lethal form of deer management, the Torbert Farm will not participate.

Mr. Jeff Morgan, Upper Hilltop Road, asked Mr. Shissler if sharp shooting is still an effective means of controlling the deer population without the use of baiting as a tool. Mr. Shissler stated the issue of availability of bait does not apply to sharpshooters on private or public land and only applies to recreational hunters. Mr. Morgan asked the representatives from Ecologix how many residents of Upper Makefield Township are in their group of hunters and how many hunters are in the total group. The Ecologix representative stated he believes they used 60 hunters, and he feels there were only six to eight Upper Makefield residents who qualified. Mr. Morgan asked if Lower Makefield residents would have preference over non-residents if they were to qualify; and the representative stated they would, if they qualified.

Ms. Jeanne Bay, stated she understands that the Board has spent a lot of time dealing with this issue and feels they are under pressure to do something. She stated she would urge the Board not to arbitrarily shoot an arbitrary number of deer since she feels there is enough doubt that it will relieve the problem. She stated she has done a lot of research and seen many reports that indicate that Lyme Disease can be reduced if the deer

numbers are reduced and has also seen many reports that state it cannot be reduced. She stated this is also true with regard to deer/car collisions. She stated what she has seen is not very conclusive so she questions why the Board would shoot the deer if they do not know if it will resolve their problems. She stated if people feel that killing the deer will resolve the problems of Lyme Disease and deer/car collisions, they will not do what they should do to prevent those problems. She feels people should take responsibility for preventing these things themselves. She feels people need to be driving more slowing and there should be better alerts to drivers during the times of the year when the deer are more active. She asked that the Board give them the opportunity to put more information together before they make the decision to shoot the deer.

Mr. Stainthorpe stated he would like to see the Board make a decision one way or other on this as soon as possible, and he would set a target date for the second meeting in April. He stated the Board has been discussing this matter since 2007. He stated the Board of Supervisors was elected to make decisions; and while they will not always be popular, he still feels they need to make a decision. Mr. Maloney stated this matter will be put on the Agenda for one of the next two meetings for a decision.

APPROVAL OF RESOLUTION NO. 2187 AUTHORIZING INCLUSION OF TAX
PARCEL NO. 20-009-003 IN THE LOWER MAKEFIELD TOWNSHIP
AGRICULTURAL SECURITY DISTRICT.

Mr. Caiola moved, Mr. Stainthorpe seconded and it was unanimously carried to approve Resolution No. 2187.

There being no further business, Mr. Stainthorpe moved, Mr. Caiola seconded and it was unanimously carried to adjourn the meeting at 11:10 p.m.

Respectfully Submitted,

Teri Appelson, Secretary