



SUDBURY CONSERVATION COMMISSION MINUTES

Meeting Minutes of Monday, August 16, 2023

Present: David Henkels, Chair; Ken Holtz, Vice Chair; Jeremy Cook (7:28 PM); Bruce Porter; Kasey Rogers (7:28 PM); Mark Sevier; and Lori Capone, Conservation Coordinator

Absent: Luke Faust

The meeting was called to Order with a quorum of the Commission by Chair Henkels at 7:04 pm.

Deer Management Program:

Chair Henkels acknowledged concerns from the community regarding Sudbury's bow hunting program, which has been in place since 1999. In response to these concerns, the Commission and Coordinator Capone have reached out to the Massachusetts Fish and Wildlife Department, bringing in an expert in deer and moose biology to address community questions. A letter was also sent to around 235 abutting property owners, publicly announcing this meeting. The goal is to provide information about the bow hunting program, address community concerns and improve education.

He emphasized the importance of respectful discourse during the discussion of the program, which involves 17 parcels controlled by the Town. Around 22 archers currently participate in the program, with a significant waiting list of approximately three dozen individuals. He commended Coordinator Capone and her staff for organizing the discussion. The meeting's agenda included introductions by the Coordinator, a presentation by Martin Feehan, a wildlife biologist from Massachusetts Fish and Wildlife, and input from concerned resident. The archers were also expected to provide context for their program, followed by public comments. The meeting aimed to gather input and information, with no votes being taken that evening. He mentioned the upcoming public hearing on the topic, scheduled for Monday, March 21, 2023, during which the final decision on whether to continue, modify, or discontinue the bow hunting program would be made.

Coordinator Capone shared a historical perspective on hunting in Sudbury. Before 1983, hunting was allowed on conservation lands, specifically Lincoln Meadows and Raymond Reservation. However, in 1985, concerns arose about hunting in the Raymond Reservation area, leading to a ban on hunting there. Lincoln Meadows continued to permit hunting with 36 hunting permits issued in 1984 and 1985. There were also instances of illegal hunting in other conservation lands, like Davis Farm. Due to concerns about the effectiveness of hunting on conservation lands, the Conservation Commission voted to ban hunting on all such lands in 1985.

In 1996, Fish and Wildlife contacted the Commission with concerns about deer populations in Sudbury, suggesting limited hunting on conservation lands. However, no action was taken at that time. In 1997, residents from the Willis Road community proposed limited deer hunting on conservation land, but no action was taken that year either. It wasn't until 1999 that the Commission officially addressed the issue and established a pilot hunting program on specific conservation lands. The records don't indicate the exact vote, but the program was implemented on properties including King Phillip, Davis Farm, Lincoln Meadows, and Raymond Reservation. In the same year, 14 illegal hunting stands were found on conservation lands by these hunters, which were removed.

The program was considered successful, leading the Commission to vote to continue it in 2000 with the issuance of 23 bow hunting permits. Hunters underwent vetting by the Commission and the prior Conservation Coordinator before being allowed into the program. Over the years, more properties were added to the program. Tippling Rock and Piper Farm joined in 2001, followed by Hop Brook, Parkinson's, and Barton Farm in 2002. In 2003, the program expanded to include the Poor Farm, Nobscot, Frost Farm, and the Wake Robin area. The program consistently helped eliminate illegal hunting stands on conservation lands. In 2013, Mahoney Farm was added due to concerns about illegal hunting on that property, and in 2019, the Broadacres property was

incorporated into the program, as the previous owner had given permission for hunting, and the hunter was already part of the program.

In 2021, an amendment to the program allowed junior archers, the sons and daughters of existing hunters, to participate, provided they met certain requirements and were under the direct supervision of an archer. In 2022, several inquiries and concerns were raised, including one instance where a harvested animal was seen being removed from the woods, a visible stand on private property, and proximity to residents. These concerns were related to private property, not conservation land. There have also been concerns raised about safety on trails and trail users. The discussion was prompted by these concerns but also aimed to reevaluate a program that has been in place for almost 25 years.

Currently, there are 22 returning bow hunters, many of whom have been part of the program since its early days, and 48 hunters on the waitlist. The program typically accommodates around 22 hunters, and when a slot opens, they consider candidates from the waitlist.

A map was share which displayed the conservation lands where deer hunting is permitted, indicating the areas allowed for hunting (red) and those prohibited due to setbacks (green). The program strictly enforces rules regarding distance setbacks from houses and roadways, with exceptions granted only when hunters have landowner permission to hunt closer to dwellings. This map provides a clear visual representation of the hunting areas and the restrictions in place to ensure safety and compliance. While the map displayed the hunting designations, it didn't include the specific location of the trail system due to a lack of GIS data. However, the hunters are aware of trail locations and make efforts to avoid areas where they might encounter other trail users, ensuring safety.

Coordinator Capone discussed the responsibilities of the Conservation Commission as established by the Conservation Commission Act, which include land management, environmental education, and policy formulation to protect natural and water resources. In the regulations for the use of conservation land, bow hunting is permitted, provided hunters have the necessary permits and licenses from the town of Sudbury and adhere to all federal, state, and local regulations.

Coordinator Capone outlined several key regulations governing the bow hunting program, such as hunting only in designated locations, providing hunters with specific areas, and the use of tree stands to minimize the danger associated with hunting from ground level, as arrows fired from tree stands are aimed downward. These regulations have remained largely unchanged over the years with minor modifications. Hunters are required to seek permission from the Conservation Commission to allow their stands to remain in place. The stands should be securely fastened and posted as private property. Stands must be attached to ladders or stepladders to avoid harming trees. The program does not allow the use of night vision or low-light devices. Any harvested animals must be removed without causing damage to the area, and hunters must report the deer taken to the Coordinator within 24 hours. Hunters are also required to keep their licenses, permits, and maps on them at all times for identification purposes.

The program is strictly for deer hunting, and hunters are mandated to contribute a minimum of two hours of volunteer time toward land management. Some hunters exceed this requirement, but two hours is the minimum. A sticker with the permit number must be displayed on each stand. The final regulation relates to junior archers, which was mentioned earlier.

In 1999, the Conservation Commission began looking at deer management on conservation lands due to concerns about illegal hunting and the damage caused by deer overbrowsing. This overbrowsing issue was attributed to factors like overpopulation, development, residents cutting down trees, and dumping lawn clippings in the woods, which degraded the quality of the forests. Another significant concern was the invasive species that were outcompeting native plants, the primary food source for deer. With fewer native plants available in the forests, deer tend to overgraze due to reduced food sources.

In addition to overbrowsing, Coordinator Capone highlighted other concerns, including deer-vehicle collisions, which averaged around 70 per year in Sudbury. Lyme disease, Anaplasmosis, and Babesiosis, all transmitted by ticks, were also concerns, particularly with symptoms overlapping with COVID-19, making diagnosis more challenging. The malnourishment of the deer population, landscape damage, and the impact on agricultural crops were additional concerns.

Coordinator Capone presented a chart that depicted the reported harvest of deer on conservation land year by year. The blue areas represented does taken, while the orange areas represented bucks taken. Over the 22 to 23 years of the program's existence, approximately 150 deer were harvested, with 108 of them being does. This indicated that the hunters were not engaging in this activity for sport or trophies but rather to assist in managing the deer population.

Coordinator Capone also provided examples of service projects that the program's participants had undertaken. These projects included trail maintenance, tree removal, construction of boardwalks, painting of kiosks and signs, mowing of a community garden, monitoring for illegal hunting, and the establishment of a pollinator meadow in the Davis Farm conservation land. Furthermore, they fixed the roof and floor in the shed at the community garden, making it functional once again. They mow a number of our conservation lands, help us remove invasive species and have helped us repair Ford's Folly. She emphasized that the program's efforts extended beyond hunting to contribute positively to the community.

Referring back to the map of hunting-allowed areas, Coordinator Capone clarified that the Conservation Commission can only regulate hunting on their lands. Regardless of the Commission's decision on hunting, hunting occurs in Sudbury through private entities and on state and federal lands that surround Sudbury's conservation lands. Lincoln Meadows, in particular, has been a concern due to its proximity to other hunting lands, which has led to violations related to illegal hunting.

Coordinator Capone added that the State Deer Biologist was invited to provide insight into bow hunting and deer management in broader terms, addressing concerns that were raised in 1999 and continue to be relevant today. The intention was to ensure everyone was informed about the Commission's efforts in managing the town's lands. She then turned the floor back to the Chairman.

Chair Henkels recognized Comm. Cook who introduced himself as residing at 123 Maynard Farm Road, and Comm. Rogers, who introduced herself as residing at 3 Stonebrook Road. He then recognized Mr. Martin Feehan.

Mr. Feehan introduced himself as the State Deer and Moose Biologist, responsible for overseeing deer management statewide. His role involves assisting communities and Conservation Commissions in addressing deer management issues, estimating population abundance, and setting recommendations for regulations.

Mr. Feehan provided an overview of the deer population in Massachusetts, noting that there are approximately 160,200 deer in the state, depending on the time of the year. In areas where hunting is limited, deer populations can exceed management goals set by biologists. Many towns in Eastern Massachusetts have more deer than their habitat can sustainably support. Without proper population management, overabundant deer can cause habitat damage and pose risks to public safety due to vehicle collisions. This overabundance can lead to a loss of forest regeneration and species diversity, as deer browse on everything they can reach.

On a statewide level, the Massachusetts Fish and Wildlife Board has set a management goal of 12 to 18 deer per square mile of forest habitat. Beyond 18 deer per square mile, significant impacts occur in the ecosystem, leading to loss of plant diversity, insect diversity, bird diversity, and an increase in invasive plants. These impacts have cascading effects across the entire landscape.

Mr. Feehan shared a study showing the stark difference in forest conditions between areas with less than 20 deer per square mile in the 1970s and areas with more than 150 deer per square mile. High deer abundance led to a loss of stand diversity, a barren forest floor, and a lack of intermediate-age class trees within the forest. He also

provided examples where properties open to hunting maintained a deer population between 10 and 20 deer per square mile, resulting in diverse stands of trees with different age classes and thriving ecosystems.

Mr. Feehan continued to emphasize the importance of managing deer populations for the sake of ecosystem and forest management. He illustrated how high deer abundance, especially in areas closed to hunting, led to a complete loss of stand diversity, a barren forest floor, and a lack of forest regeneration, ultimately resulting in a loss of the forest itself. He explained that high deer abundance can lead to forest openings dominated by ferns, as deer do not consume them. When mature trees eventually die, and regeneration is absent, the forest faces a significant decline.

To monitor the herd, the Massachusetts Department of Fish and Wildlife collects various data, including sex information from hunters, age estimation from jaws, and health factors. They also conduct hunter surveys to examine factors like effort, success rates, and non-harvest mortality. Mandatory in-person biological deer checks occur during the first week of the shotgun season, which provides valuable data for modeling deer abundance.

The state uses a density reconstruction model for estimating abundance based on harvest data. It's important to note that this model samples only the deer that are harvested. Thus, areas closed to hunting may have significantly higher populations than the models estimate because unsampled deer are not harvested.

In terms of management, we primarily rely on a deer harvest-based management system. Hunting is a highly regulated and safe activity, with all hunters required to be properly licensed and complete a hunter education course that teaches safety and laws. Massachusetts environmental police strictly enforce hunting laws and regulations, and every state in the country utilizes legal, regulated hunting to manage deer populations.

Over the last century and more, there has been a significant transformation in Massachusetts, transitioning from very low deer harvests as the deer population was recovering from overharvest in the 17th and 18th centuries to a rapid growth in harvest, particularly in the last 30 years as the deer population has increased. Massachusetts has maintained an impeccable safety record in hunting. There have been zero instances of non-hunters being injured in the state due to archery deer hunting, which is considered especially safe because of the short distance that archers can launch an arrow. The Sudbury program, with its elevated stands, enhances safety even further. Importantly, there have been no instances of non-hunters being killed as a result of deer hunting in Massachusetts. Despite over 40,000 deer hunters being active in the state each year, there have been no accidents or incidents involving non-hunters, particularly in archery hunting.

In order to manage deer populations effectively, the state of Massachusetts relies on several strategies. These strategies include changing antlerless deer permit allocations, setting population goals for each wildlife management zone, and making efforts to remove harvest caps. Property access for hunting is another critical factor, and the success of deer management programs depends on cooperation between property owners, municipal Lands Conservation Commissions, and land trusts.

The challenge in Massachusetts is to balance deer populations in different areas and ensure sustainable management. The allocation of antlerless permits is a crucial tool in deer population control. The state is divided into wildlife management zones, and each zone has specific population goals. Sudbury, located in Zone 10, has consistently exceeded its goal of 18 deer per square mile, averaging between 25 and 40 deer per square mile. This is an indicator that deer populations are well above the desired level.

Despite efforts to increase the harvest, such as removing caps on antlerless permits and extending the hunting season, the challenges of deer management in the state persist. There are statutory limitations and restrictions on hunting practices, which can make population management difficult. However, it is evident that property access for hunting is essential for effective management.

Hunting programs in towns like Sudbury are crucial for managing deer populations in densely populated areas. Hunting is a safe and effective means of controlling deer populations. The Sudbury program has been successful,

with no reported safety issues. This program indirectly benefits neighboring communities by reducing deer density in the region.

Sudbury's deer management program has been consistent and successful, making it one of the top programs in the state. It has achieved high success rates for hunters and contributes significantly to the town's overall deer harvest. The program's effectiveness demonstrates the importance of hunting as a tool for promoting forest conservation and maintaining ecosystem health. Despite the challenges posed by urban and suburban environments, hunting remains a safe and effective means of managing deer populations.

Chair Henkels thanked Mr. Feehan, and recognized Dr. Margaret Peppercorn for her presentation.

Dr. Peppercorn, a long-time Sudbury resident and pediatrician offered an alternative viewpoint regarding the program. She began by emphasizing her opposition to the program, citing concerns about the cruelty inflicted upon deer and the suffering it causes. She cited studies revealing that even skilled bow hunters often cause non-lethal injuries and prolonged suffering for the animals. She recounted a study from Oklahoma where radio-tracked deer were shot by archers, with some enduring slow and painful deaths.

The doctor also expressed her love for the town's natural environment and wildlife, which has drawn many residents to Sudbury. She questioned the need for a deer cull, emphasizing that population control methods should be humane and regularly evaluated. She proposed the use of non-toxic, all-natural deer contraceptive medication as a viable alternative to reduce the deer population without causing harm.

Addressing three common reasons for supporting the deer cull, Dr. Peppercorn challenged the notion that deer contribute significantly to the spread of Lyme disease, citing scientific evidence that deer themselves are not carriers of the disease. She also contested the claim that deer population reduction effectively reduces deer-related car accidents, providing examples where studies showed contradictory results. Instead, she suggested that measures like wildlife fences, reduced speed limits, and better driver education could be more effective and humane solutions.

Lastly, Dr. Peppercorn argued against the belief that deer damage landscapes, recounting her personal experience with a garlic-based deer repellent spray that successfully protected her property. She pointed out that ecosystems are complex, and blaming deer for all ecological issues oversimplifies the situation. She emphasized that nature should be left to its own devices and that interfering with it could have unforeseen negative consequences.

In conclusion, Dr. Peppercorn fervently opposed the deer bow hunting program, presenting a range of reasons that challenged its necessity, cruelty, and effectiveness. She urged the town to explore alternative, non-lethal methods for population control and to consider the intricacies of the natural world before making decisions that affect the ecosystem.

Chair Henkels thanked Dr. Peppercorn for her presentation and recognized Mr. Herguth, spokesman for the Town's bowhunters.

Mr. Herguth, of 5 Ford Road, and a Sudbury resident for 12 years, addressed the audience, sharing his perspective as a newer member of the community and participant in the town's bow hunting program. Mr. Herguth began by acknowledging the expertise of Conservation Coordinator and the state biologist regarding the technical aspects of bow hunting. He emphasized the importance of the hunting community in Sudbury, especially in light of the increasing interest in bow hunting since the onset of the COVID-19 pandemic.

Mr. Herguth highlighted the sense of responsibility felt by the hunting community, viewing themselves as stewards of the land and an extension of the Conservation Committee. He expressed the significance of their presence as licensed hunters in local woods, acting as a deterrent to illegal hunting activities and ensuring the protection of the properties. Mr. Herguth pointed out that the hunting program not only has benefits for managing the deer population, as explained by the biologists but also contributes to the well-being of the community and the

Town's conservation efforts. He concluded his remarks by expressing his willingness to answer any questions and mentioning the presence of other archers in the program who could provide additional insights.

In the Q&A, Wendy Diamond questioned whether there have been other methods of deer control tried in addition to bow hunting in Sudbury. Coordinator Capone noted that Sudbury had not attempted any methods aside from bow hunting but inquired if there were other options in the Commonwealth of Massachusetts.

In response, Mr. Feehan explained that in Massachusetts, they rely on regulated hunting as the primary method of deer control. This approach encompasses a variety of techniques, including bow hunting, shotgun hunting, and special hunts. Different organizations and agencies, such as Mass Audubon and DCR, may have targeted programs with specific permits allocated for their use. However, the exclusive reliance in Massachusetts remains on regulated hunting as the main means of managing the deer population.

Dr. Karen Greenberg, a physician from Brookline, expressed strong support for Dr. Peppercorn's perspective, emphasizing her agreement with her views and the importance of considering the well-being of families, children, and the community.

Ms. Barbara Zucker, who identified herself as having family in various Sudbury addresses, conveyed her understanding that the deer culling program, which involves the use of bows and arrows, seemed more focused on the sport of hunting rather than addressing the issues associated with the deer population. She argued that more people were interested in participating in the sport than there were concerns about managing the deer population. Barbara mentioned that alternative solutions had emerged since the program's inception and concurred with Dr. Peppercorn's viewpoint, opposing the killing of animals and advocating for alternative approaches to handle the issue.

Maxfield Tucker Zosher, expressed support for Dr. Peppercorn's viewpoint. Mr. Zosher raised the issue of the maximum range of compound bows, which can extend over 1,000 feet, and expressed concern that the 500-foot proximity limit to houses might not adequately address the potential dangers, particularly when hunting takes place on an incline.

In response, Mr. Feehan clarified that the 1,000-foot figure is a theoretical limit for compound bows and that in practice, bow hunters usually do not take shots beyond 50 yards, or 150 feet. He emphasized that taking a shot beyond this range would be impractical and unlikely to happen. Mr. Zosher remained concerned about the possibility of inaccurate shots, especially when hunters are reacting quickly to a moving deer. In response, Mr. Feehan explained that there have been zero injuries from bow hunting statewide in Massachusetts, with archery hunting making up the majority of deer harvests and a large number of bow hunters without incidents.

When Mr. Zosher asked about data from other communities or states, Coordinator Capone suggested the question be directed at Mr. Feehan for clarification. Mr. Feehan, in response, indicated that they do not have readily available data on archery incidents in other communities or states. However, he emphasized that Massachusetts has maintained an impeccable safety record with archery hunting for nearly 60 years, without any injuries to non-hunters or other incidents.

Mr. Zosher asked about potential hunter-on-hunter accidents. The discussion initially focused on ground slope and how it might affect the range of arrows fired from bows. The resident expressed concerns about hunting zones situated on inclines, with residential areas at the bottom of these inclines. He worried that arrows fired downhill might not hit the ground due to the downward slope.

Mr. Feehan clarified that the hunting program requires an elevated stance, and the use of elevated stands addresses the issue by changing the trajectory of the arrow. This change in trajectory accounts for the ground slope and ensures that the arrows are directed in a way that is safe.

The resident continued to express concerns, indicating that his question regarding ground slope was only partially addressed. He worried about situations where the ground slopes downward, potentially affecting the range of

arrows. Mr. Feehan reiterated that there is no record of issues related to ground slope or arrow range within Massachusetts and that the elevated stands effectively address such concerns. However, when asked about incidents outside of Massachusetts, Mr. Feehan explained that they do not have data on accidents in other states and that how such data is tracked varies from state to state.

Dr. Wendy Diamond, a physician living on Chanticleer Road, expressed her concern about the use of bows and arrows in deer hunting, emphasizing the potential pain and suffering experienced by deer. She inquired about why alternative methods of deer control hadn't been explored.

Mr. Feehan stated that the primary focus among the highlighted options is sterilization. It's crucial to note that studies supporting sterilization have been selectively chosen. He noted that he has firsthand experience with this from his PhD at Cornell, where he collaborated with leading experts. Moreover, his advisor played a significant role in a deer management program, which was approved by his PhD advisor at Cornell. It's essential to understand that sterilization has a poor track record when applied on a large scale. It has only been somewhat effective in gated communities. Sterilization is also prohibitively expensive, and it requires treating a minimum of 92% of the deer population according to a stringent schedule.

The challenge with this approach is that it doesn't address the current deer population, and it fails to consider the continuous influx of deer. High deer abundance is a complex issue. Some deer continue to reproduce, and there's also migration from neighboring communities, which perpetuates the problem.

The fundamental goal of the Conservation Commission Act is to safeguard lands for the long term. Neglecting the deer population can have detrimental consequences, as high deer abundance can negatively impact the sustainability of forests. Therefore, sterilization is an impractical and expensive solution that is unlikely to be considered by the state. The cost considerations mentioned only pertain to the drug costs and do not encompass labor and accessibility issues for treating deer within the community. Ethical concerns and the potential for accidents further complicate the sterilization process. There's a risk of injured deer, and in areas with high deer populations, they may suffer slow and painful deaths due to car collisions, malnutrition, and other factors.

In essence, sterilization isn't a straightforward or effective solution. While it may seem like a humane option, in the long run, it has more negative consequences than positive outcomes. States typically explore sterilization as a last resort when no other management options are viable.

Dr. Diamond inquired about newer methods of contraception that were mentioned. Mr. Feehan replied that those methods are not actually new. PZP contraception was developed in the 1990s. The vaccine mentioned was for ticks.

Mr. Feehan added that he serves on the national CDC deer team. He is also a research member of the New England Regional Center for vector-borne diseases, and works daily on tick-borne illness issues as part of that team. There is a direct link between deer abundance and tick populations. The part of the discussion concerning the white-footed mouse is accurate, particularly during the first half of the black-legged tick's life cycle, often referred to as the deer tick. However, this explanation doesn't address the second half of the life cycle when the ticks require their second blood meal, and this is where deer serve as the primary host. His work revolves around these issues, and the Inland Regional Center for vector-borne diseases is situated at UMass and involves various regional institutions across New England, in addition to the State Department of Public Health. The impact of deer is substantial, which is why the CDC has established a national deer team to address these concerns.

Chair Henkels thanked Dr. Diamond for her questions, and recognized Mr. Perry Steinberg.

Mr. Steinberg, a Town resident, expressed appreciation for Dr. Peppercorn's research and found it persuasive. He had also acknowledged the effectiveness of the current methods. Mr. Steinberg suggested that it would be beneficial to explore alternative approaches in parallel, and while he didn't propose abandoning the current method, he had emphasized the importance of considering other options. He extended gratitude to Dr. Peppercorn for her extensive research efforts.

Chair Henkels thanks Mr. Steinberg for his comments, and recognized Mr. Richard Landrigan.

Mr. Landrigan, a 45-year resident of Sudbury, residing at 22 Deacon Lane, next to the Davis Farm, stated that he was surprised to discover a deer stand located approximately 200 feet from his bedroom last fall. He pointed out that there were no notices posted at any of the six entrances to the Davis Farm property regarding deer hunting.

Mr. Landrigan recalled his involvement in the 1980s when he successfully advocated for signs indicating "no hunting allowed" to be placed around the property. This action was prompted by incidents of gunshots in his backyard, even during a two-year-old's birthday party. He emphasized the importance of consistency in providing notices to residents regarding hunting activities on the property.

He suggested that the Conservation Commission should issue letters to the property's abutters, given the large size of the property and the number of residents living in the vicinity. Mr. Landrigan believed that it was irresponsible to conduct the hunting program without proper notification to the people who frequently use the property, such as himself, who regularly walks his dogs and feared for their safety due to potential hunting activity.

Chair Henkels thanked Mr. Landrigan for his comments, and recognized Mr. Mort Birnbaum.

Mr. Birnbaum from Brewster Road in Sudbury expressed his views regarding the hunting program. He pointed out that referring to it as a "harvest" suggested some discomfort or unease within the board regarding the program. Mr. Birnbaum echoed the sentiments of others by urging the consideration of alternative possibilities, even though he was unsure about the effectiveness and cost of a sterilization program. He appreciated Mr. Steinberg's suggestion to explore parallel approaches, as it seemed to make practical sense. Mr. Birnbaum also extended his gratitude to Dr. Peppercorn for her valuable research and comments on the matter.

Chair Henkels thanked Mr. Birnbaum for his comments, and again recognized Ms. Zucker.

Ms. Zucker commended Dr. Peppercorn for her excellent research and expressed support for finding alternative solutions to avoid killing animals if possible. The speaker appreciated Perry Steinberg's suggestion to explore other approaches, and reiterated her concern that the hunters were more interested in the sporting aspects of deer hunting.

Chair Henkels thanked Ms. Zucker for his comments, and again recognized Mr. Herguth.

Mr. Herguth reiterated the importance of this program in preventing illegal hunting activities. Citing Mr. Landrigan's concerns, he noted that there have been issues with illegal hunting near residential areas in the past. This program, with its dedicated group of hunters committed to following the rules, is a crucial deterrent. Without the permitted hunters, others might come in and engage in unauthorized hunting, using crossbows or other means. Having our group here ensures the protection of these lands and neighboring properties. We are vigilant and even use trail cameras to monitor the area. Being part of the hunting community, we discourage potential trespassers who know these places are under watch. Without our presence, the strain on law enforcement, including environmental and Sudbury police, could be overwhelming.

Chair Henkels thanked Mr. Herguth for his comments, and recognized Dr. Abigail Aronson.

Dr. Aronson, who resides at 125 Brimstone Lane, expressed gratitude towards Dr. Feehan, Dr. Peppercorn, and the Commission for their efforts. She acknowledged the positive spirit of the event. Abigail raised a concern regarding the language used by Dr. Feehan in one of his slides, where he mentioned no safety issues. She pointed out that this wording could be misleading since there are indeed safety issues, even if no accidents have occurred. Abigail suggested that Dr. Feehan's statement might imply that these issues are addressed because hunters are cautious, but the concerns still exist.

As a music professor, Dr. Aronson questioned whether archers are required to demonstrate a high level of proficiency in their courses, particularly the junior archers. She found the idea of educational standards for archers commendable but preferred that such education didn't take place near her residence.

Mr. Feehan stated that, regarding proficiency, the program may not appear very challenging at first glance. However, it indeed enforces a rigorous proficiency requirement. To be eligible for inclusion, every bow hunter must undergo an in-person accuracy proficiency examination, involving shooting arrows at specified distances. Additionally, participants must have completed bow hunting education courses in collaboration with Mass Wildlife, which also have their own set of requirements. It's worth noting that the proficiency requirements for the Sudbury program surpass the standards set by most wildlife organizations.

Dr. Aronson questioned the accuracy of the hunters, and specifically mentioned the junior hunters as well. Coordinator Capone stated that the proficiency tests require three kill shots and three shots, without retakes. They shoot at a target. Mr. Feehan noted that, with archery hunting, hunters do not shoot at moving deer. It's very different than shotgun hunting. Because of the time it takes for the arrow to actually travel from the time it's released to the time it hits the deer, hunters do not take moving shots.

The topic shifted to an observation about a conversation on Sudbury's Facebook group regarding the tracking of blood trails after a hunt. This led to a question about the situation where a wounded deer might enter a backyard. Mr. Feehan emphasized that if the property is posted as private or restricted, hunters are not allowed to enter without obtaining proper permission. The responsibility for posting private property depends on municipal laws.

After a brief break, Chair Henkels recognized a resident at 9 Fern Trail for his comments.

The individual inquired about a situation related to their property, which is adjacent to the Fish and Wildlife land near Lincoln Meadows in Great Meadows. They mentioned being approached by hunters, approximately twice over the 30 years they've lived there, seeking permission to hunt deer on their 12-acre wetland property bordering public lands. They were curious about the prevalence of private property owners granting hunting permissions in Massachusetts, particularly for bow hunting.

Mr. Feehan explained that in Massachusetts, the majority of privately harvested deer are obtained through permission from property owners. This practice is quite common, especially in many municipal towns where local laws often require or have varying conditions for obtaining such permissions. In Eastern hunting zones, outside of public properties, hunters typically secure access to private lands by approaching property owners and seeking their consent. This approach also provides a way to circumvent the 500-foot discharge setback rule, as hunters can operate within this zone as long as they have the property owner's permission.

Chair Henkels recognized Mr. Rich Kleeman for his comments.

Mr. Kleeman, residing at 208 Old Sudbury Road in Sudbury, expressed his gratitude and mentioned his 36-year residency in Sudbury, during which he has been actively bow hunting in the area, including Wayland. He highlighted the nutritional benefits of venison, emphasizing its low cholesterol and fat content, rich in B vitamins and minerals, which contribute to brain health.

He acknowledged that most bow hunters utilize the harvested meat, ensuring that the animal isn't wasted. He also addressed concerns about Lyme disease, citing his personal experience with it and confirming that deer play a role in the disease's cycle. He expressed skepticism about sterilization methods due to their high costs and lack of effectiveness in the long term.

Mr. Kleeman described bow hunting as a humane method, noting the sharpness of broadheads used in hunting, which can result in quick and relatively painless kills. He expressed his appreciation for the opportunity to hunt in Sudbury and how he has enjoyed this pastime over the course of 36 years.

Chair Henkels thanked Mr. Kleeman, and recognized Mr. Josh Liberman.

Mr. Liberman introducing himself as a resident of 17 Hope Still Brown Road, where he has lived for nearly 15 years. He emphasized his deep-rooted connection to bow hunting and outdoor sportsmanship throughout his life, further noting that he's a professional in this field. In addition, Josh mentioned his role as an archery instructor, with over 40 years of experience.

To address concerns about arrow distance and hunting safety, he shared his personal experiences, stating that the farthest shot he's taken to harvest a deer was 25 yards. He stressed that most shots fall within the 12 to 16 yards range, highlighting that it is impossible to mistake a dog or a person for a deer during legal daylight hours due to the stationary nature of deer.

Mr. Liberman also touched upon the issue of placing signs on the property frequented by archers. He commended the idea and revealed that the Conservation Commission, led by the previous Conservation Coordinator Debbie Dineen, had provided archers with signs, which they had erected. He expressed a willingness to put them back up if necessary.

Regarding volunteerism and stewardship of the land, Mr. Liberman emphasized that archers take their role seriously and are dedicated to ensuring safety in the community. He shared instances of reporting illegal activity to the police and noted that they act as the eyes and ears in the area, assisting law enforcement when necessary. He conveyed his gratitude for the opportunity to speak and underscored the valuable service that archers provide to the community.

Chair Henkels thanked Mr. Liberman for his comments, and again recognized Dr. Peppercorn.

Dr. Peppercorn responded to the discussion about following blood trails, emphasizing her viewpoint that using a bow and arrow on deer is inherently cruel due to the suffering that occurs after the initial shot. She challenged the notion of archers providing a service to the community, asserting that not everyone in the community desires deer to be shot. They proposed that there are alternative volunteers who could monitor the woods without resorting to hunting.

She then addressed the topic of contraceptives, acknowledging that they were once expensive but pointing out the existence of studies, including one by Dr. Rutberg at Tufts University, indicating that contraception can be effective in managing deer populations. She expressed disappointment that alternative methods were not being explored for managing the deer herd, suggesting that bow hunting has become a sport rather than a necessary measure.

Regarding the reduction of Lyme disease incidence, the speaker cited conflicting evidence in different towns and stressed that meaningful reductions require near-elimination of the deer population, which they considered an impractical solution. In conclusion, she expressed the belief that hunting deer on conservation lands was inhumane and not a useful way to address the issues associated with the deer population.

Comm. Cook requested that Dr. Peppercorn provide information regarding potential side effects and complications associated with wildlife contraception, specifically Porcine Zona Pellucida (PZP). The concern raised was analogous to the complications observed in human contraceptive use, where there is a potential for risks to both the mother and child's development. He requested clarification on the complication rate, recognizing that, as with human interventions, it's uncommon to achieve an absolute absence of complications. The aim of this inquiry was to gather insights on the feasibility of using contraception as a humane method for wildlife population control.

Dr. Peppercorn noted that they did not come across any significant complications related to the use of wildlife contraceptives, specifically Porcine Zona Pellucida (PZP). However, she highlighted that the primary limitation is that PZP is currently only available for experimental use in the state and is not officially approved for deer population control. Nevertheless, they mentioned that it is possible to request its use, as demonstrated by Dr. Rutberg at Tufts University.

She expressed her disagreement with the necessity of managing the deer population and noted that, to their knowledge, there hasn't been a comprehensive population assessment conducted over the years. Her objection stemmed from the perceived lack of data supporting the need for ongoing management. Despite these reservations, she reiterated that she hadn't encountered major complications associated with the use of PZP or similar contraceptives.

Comm. Rogers questioned whether the vaccine was USDA or FDA approved. Dr. Peppercorn stated her belief that is in certain areas, but not yet for Massachusetts. Comm. Cook stated that by definition, if the vaccine is experimental, a dataset is not available. Dr. Peppercorn stated that she would forward articles about Dr. Rutberg's work to the Commission.

Chair Henkels thanked the participants for their comments, and recognized Dr. Greenberg.

Dr. Greenberg expressed gratitude for the ongoing conversation and extended thanks to Dr. Peppercorn. He reiterated their request for both Mass Wildlife and Sudbury to explore alternative methods for deer population management. Dr. Greenberg mentioned the potential of artificial intelligence as a tool to address this issue and underlined the consensus, even among many hunters, that there is inherent cruelty in the current approach, involving blood trails and suffering, which is deeply troubling to many. Additionally, he noted that many physicians are now advocating for plant-based diets to promote the overall health of the population.

Chair Henkels thanked Dr. Greenberg for his comments, and again recognized Mr. Zosher for his comments.

Mr. Zosher asked whether hunters were allowed to shoot from outside of the tree stand. Mr. Feehan replied that when they're following the deer blood trail, they will euthanize it as quickly as possible. There are different ways to do this, such as archery at close range or with a knife. Regarding concerns about a hunter potentially shooting a deer in someone's backyard, it was reiterated that access to private property without permission is not allowed, following municipal laws. The rules may vary, and it was noted that if a deer falls within the discharge limits, specific regulations apply to ensure safety and compliance.

Dr. Beverly Greenwald, residing in Newton Center, began by expressing wholehearted support for the statements made by Dr. Marge Peppercorn. She went on to voice her concern about teaching young people that causing pain to sentient beings is acceptable, which they found deeply troubling. Dr. Greenwald advocated for the exploration of alternatives to reduce the deer population, questioning whether population reduction was necessary in the first place. She mentioned their anticipation of a Lyme disease vaccine that might eliminate the need for current population control measures.

Dr. Greenwald also raised a financial aspect, inquiring about the revenue generated by the permits and how much money the town of Sudbury receives as a result of these permits. Coordinator Capone confirmed that the Town does not receive any funding from program, including from the issuance of permits. Comm. Rogers pointed out that one of the reasons for not imposing fees on permits is the emphasis on stewardship and community projects. This helps the Conservation Commission and the Town of Sudbury maintain the lands, which is essential because, as a government entity, they face financial constraints. These community efforts significantly contribute to the upkeep of the public lands.

Chair Henkels thanked Comm. Rogers for her comments, then asked Mr. Feehan if it would be possible for Mass Wildlife to make available the references cited during his presentation, to which Mr. Feehan agreed. Chair Henkels requested that Mr. Feehan briefly discuss the impact of deer population reduction beyond 2 or 3 years. Mr. Feehan explained that, while the discussed harvest represented only about 17 to 18% of the Town's overall harvest, it played a vital role in stabilizing the deer population. Without these programs, the deer population would continue to experience exponential growth, especially in areas closer to Boston and within the 495 beltway. The program was deemed essential for maintaining population stability and preventing unchecked growth in the absence of other interventions.

An individual expressed concern about the safety of shooting from raised blinds when the hunting stand is uphill, and a house is downhill. They questioned whether this configuration could negate the safety benefit of the elevated stand.

In response, Martin clarified that in archery hunting, shots are typically taken at targets within a range of 15 to 30 yards. Even when shooting downhill, archery hunters use range finders that account for the angle from which

they're shooting, known as declination. This adjustment ensures that shooting from an elevated stand is no less safe than shooting from a level ground, as hunters make the necessary calculations to ensure safety.

In summary, the concern about safety when shooting from raised blinds on an incline was addressed by highlighting the use of range finders and adjustments made by archery hunters to maintain safety during their shots.

Dr. Aronson raised a question during the meeting regarding the need for the town to be cautious when posting signs for hunters, especially in on abutting properties where children are often present. She suggested the Town post signs to make sure hunters are aware of where to stop.

In response, Mr. Feehan explained that while it's not a safety necessity, posting signs indicating hunting areas is effective in many communities. Some DCR properties already implement this practice. It helps ensure that people have an understanding of hunting activities in the area. The speaker also noted that most contact between hunters and the public typically occurs when hunters are entering or leaving hunting areas. There's usually minimal interaction when hunters are in tree stands or recovering deer, as deer tend to stay away from trails. The goal is to address concerns about notifying the public and making them aware of ongoing hunting activities, which has been successful in managing similar programs in the past.

A participant asked whether it can be guaranteed that hunters will only shoot 15 to 20 yards. Mr. Feehan replied that hunters aren't going to take anything beyond around 40 yards. It is incredibly difficult to pull a bow with the required strength, so 15 to 20 yards is going to be your average shot. 30 yards is a very long shot. 50 yards is about the maximum that any hunter can reasonably do. From an elevated stand, it wouldn't be all that effective because of the parabola required to be able to actually land the arrow on target.

Dr. Peppercorn inquired about whether there has been an actual annual count of the deer population in Sudbury or if the data is solely based on estimated guesses. Dr. Peppercorn also asked whether there were statistics indicating that the Sudbury cull had addressed any of the concerns. Coordinator Capone explained that Sudbury does not conduct statistical analysis or annual counts of the deer population. Instead, they rely on regional data provided by the state for their zone. Monitoring the deer population specifically on their conservation lands is not part of their regular practice.

Mr. Feehan explained that when it comes to determining deer population densities at the municipal level, it can be challenging. For a relatively small community in terms of land area, like Sudbury, it is even more complex. The home ranges of deer often overlap between different areas within the town, and hunting practices don't align with individual properties. This means that calculating deer population densities isn't as straightforward as some might assume because the deer's home ranges are significantly larger than the size of individual properties, contributing to the complexity of monitoring and assessment.

Susan Ian McCarthy inquired about the various users of these properties, including hikers, birders, and dog walkers. She also questioned whether non-hunting users are expected to volunteer their time to manage the land, and if not, why other users are not held to the same stewardship expectations as permitted hunters. Chair Henkels acknowledged the excellent question and emphasized that this touches on the topic of volunteerism, which is a different and broader subject.

Comm. Rogers expressed her curiosity about hunting programs in Sudbury on lands other than town-owned properties. She mentioned that approximately 80% of hunting occurs on non-town lands and inquired if rifle hunting is allowed on those lands. Additionally, she sought information on the regulations governing hunting on these properties.

In response, Mr. Feehan clarified that rifle hunting is not permitted in the state of Massachusetts. The state's safety record benefits from this restriction, as shotguns have a limited shooting range, reducing the risk of long-range ricochet shots that can lead to accidents. It was further explained that other properties, such as the National Wildlife Refuges and WMAs (Wildlife Management Areas), follow the same hunting rules as other properties.

These areas allow the use of shotguns for hunting. The U.S. Fish and Wildlife Service collaborates with these properties, ensuring consistent hunting requirements and addressing any potential conflicts.

Comm. Rogers raised questions about the use of PZP, specifically in relation to wildlife management. She mentioned that a quick online search indicated that PZP is primarily approved for investigational use and not for animals intended for human consumption. It seemed to be limited to horses and burros that are not destined for food. She also noted that some other states might have considered approval for PZP's use in certain situations, but the potential effects on animals intended for consumption remained uncertain.

Mr. Feehan acknowledged these concerns and confirmed the accuracy of this information regarding PZP. He explained that the use of PZP in wildlife management programs has typically been limited to isolated urban environments with significant public pressure to address issues, although aggressive action is often avoided. Importantly, it was emphasized that sterilization is not a feasible option for wildlife management in Massachusetts. Municipalities lack the authority to permit such operations, and state permits for sterilization are not issued. Thus, sterilization should not be considered a viable alternative for municipalities, Conservation Commissions, or land trusts.

Comm. Cook expressed his gratitude for the productive conversation and the willingness of several individuals to step forward and continue the work initiated by bow hunters. He appreciated that these individuals, even from different areas like Brookline, Newton Center, and Sudbury, were ready to contribute to the Conservation Commission's responsibilities and maintenance of Sudbury's conservation lands. The speaker found this commitment outstanding and heartening, as it aligns with the shared goal of conservation. He specifically thanked participants like Dr. Peppercorn, Dr. Aronson, and Dr. Greenberg for their willingness to assist in taking on these responsibilities, ensuring the ongoing upkeep of the Sudbury conservation lands in the absence of bow hunters.

In response to Chair Henkels, Coordinator Capone confirmed the hunting season starts in October 2023 and extends through the end of December.

Chair Henkels expressed his appreciation for the valuable comments and observations provided by all the participants in the audience. He acknowledged the Commission's gratitude for their contributions. The discussion was set to conclude, with plans to reconvene on August 21, 2023, during the regular meeting schedule. The purpose of this upcoming meeting would be to take a vote on the existing program, considering whether to continue it as is, with modifications, or to dismiss it.

He also mentioned that a significant amount of information needs to be reviewed between the current discussion and the future vote. They clarified that this process involves annual engagement with the hunters and reiterated the importance of adhering to this annual cycle.

Coordinator Capone underlined that the Commission conducts an annual vote to determine whether they will continue the program or make modifications to it. She emphasized that the program has never been discontinued since its inception in 1999. She expressed gratitude for the productive discussion involving participants from both sides of the issue and extended her thanks to everyone for their time and contributions.

With no further business, on motion by Comm. Cook, seconded by Comm. Rogers, the Commission voted unanimously to adjourn the meeting at 9:16 PM.