

Carlisle Conservation Commission
February 13, 2020
Minutes

Pursuant to the notice filed with the Town Clerk, Chair Dan Wells called the meeting to order in the Clark Room at the Town Hall at 7:03p.m. Also present were Vice Chair Angie Verge and Commissioners Ken Belitz, Alex Parra, Lee Tatistcheff and Helen Young and Conservation Administrator Sylvia Willard. Commissioner Melinda Lindquist was not present.

Minutes: *Verge moved to accept the **October 10, 2019** minutes with a minor transposition error, Young seconded and the motion was approved unanimously.*

Certificate of Compliance:

(DEP 125-870) 119 Estabrook Road: Applicant: Cal McCarthy; Project: ATF Filing Restoration of due to unpermitted work within 100' Buffer Zone and alteration to a Bordering Vegetated Wetland; Issued: 9/1/2009 Willard reported the current property owner is working with David Crossman of B & C Associates to evaluate remaining restoration work. Crossman has concluded that approximately half of the required had been completed by the previous owner before the property was sold last year. Crossman has conveyed the property owner's request that the Commission consider the issuance of a partial Certificate of Compliance. He will be attending the next meeting to also discuss guidance of procedures going forward in order to complete the project.

Enforcement Orders:

778 East Street - Randy Brown: Direct filling of a small pond within Bordering Vegetated Wetland (BVW), using a line of stacked logs to create a log crossing and another line of logs located along the edge of the pond. Additional work consisting of clearing understory in BVW as well as clearing out an existing drainage swale that connects the pond and BVW to an existing culvert on a neighboring property. The property owner had previously been advised by the Conservation Administrator that any alteration of the protected resource area or its 100-foot Buffer Zone must be approved under a Wetlands Protection Act filing.

Willard reported the property owner is now in the process of removing the logs as outlined in the Enforcement Order and he will be attending the next meeting to discuss restoration requirements.

Project Updates:

Arrowhead Lane DEP (125-1018), (125-1017), (125-1020): The property owners will be attending the Commission's next meeting to discuss the soil evaluation report submitted by Licensed Site Professional Richard Doherty of Engineering & Consulting Resources, Inc.

570 West Street/Lion's Gate (DEP 125-0986): Erosion control will be installed tomorrow in two areas identified on site. Siltation fabric has been installed in one of the areas but need staked straw bales added. The other site is very near the documented (but otherwise non-jurisdictional) Vernal Pool and needs both straw bales and erosion control.

Garrison Place/81 Russell Street (125-0966) Wetland Restoration Plan: Willard reported the wetland restoration is underway in the area that was impacted by the previous owner. The plan followed was slightly revised from that which was cited in the Order of Conditions.

Administrative Updates:

Annual Town Report: Willard reported a draft is in progress and she may potentially request an extension to the 2/21/20 submission deadline.

MACC Environmental Conference: February 29, 2020 – College of the Holy Cross; Registrations in process

OSRP Seven Year Action Plan (3/1/2020 deadline): The continued review was deferred until the next meeting due to time constraints.

National Grid Route 225 Bridge Work: National Grid submitted a letter dated February 6, 2020 indicating their intent to conduct public utility maintenance activities associated with the gas line located under the bridge over the Concord River on Bedford Road in order to improve customer reliability. The proposed work is considered to be exempt from the WPA (M.G.L. c. 131 S40) and the Carlisle Non-Zoning Wetland Bylaw.

7:15 pm (DOA-360) Request for Determination of Applicability, Continued Meeting

Applicant: Marc Lamere, Carlisle Trails Committee

Project Location: 81 Russell Street/Garrison Place Conservation Land

Project Description: Construction of a 240' boardwalk within the 100-foot Buffer Zone and an up to 8-foot wide stone/gravel ramp and within the 200-foot Riverfront Area of Spencer Brook Road.

Well opened the continued meeting under the Massachusetts Wetlands Protection Act and the Carlisle Wetlands Protection Bylaw.

Marc Lamere presented a revised plan dated February 7, 2020 based discussions at the October 24, 2019 meeting when the Commission had requested a potential alternative approach to the access ramp off Russell Street and associated fill. There had been no changes requested relative to the boardwalk component of the project as proposed. The revised plan includes a 13-foot long by 3.5+/- high by 3-foot wide wood staircase in replacement of the previously proposed 8-foot wide stone/gravel access ramp. The staircase will provide safe access from Russell Street to the Russell Conservation Land trail as it starts by the road, since there is a 3.5-foot drop between the street and the land where the trail is located. Access from the abutting driveway is not allowed.

Lamere reviewed the staircase design based on the *Russell Street Trail Access Stair* schematic dated January 20, 2020, as submitted by Trails Committee member Alan Ankers. Lamere noted the plan includes a 2-foot x 4-foot x 3-foot high wood hand railing in lieu of a full guardrail on either side, since it will follow the grade, with no elevation greater than 30 inches above grade. Verge asked if they had considered using a concrete bumper at the lower end to minimize the contact of the wood to the soil. Lamere said this approach was considered but not pursued because the bumper would need to be "dug in" below grade and would require the relocation of large rocks within the project area, resulting in more disturbance to the resource areas.

Tatistcheff moved to issue a Negative Determination/B2, the work described within the Request is located within an area subject to protection under the Act but will not remove, fill, dredge or alter an area. Therefore, said work does not require the filing of a Notice of Intent. Young seconded and the motion was approved unanimously.

7:27 p.m. (DEP 125-1087) Notice of Intent, Continued Hearing

Applicant: Carol Peters

Project Location: 80 Carleton Road

Project Description: Construction of a 150 square foot addition to the existing single-family home within the 100-foot Buffer Zone of the Bordering Vegetated Wetland and the removal of up to 20 trees within 50 feet of the house

Wells opened the continued hearing under the Massachusetts Wetlands Protection Act and the Carlisle Wetlands Protection Bylaw.

Wells reported he and several members of the Commission conducted a site visit with the applicants to evaluate the trees proposed for removal. He said that although some of the trees to be cut are located within close proximity to the wetland, the Commission has determined there will not be a need for mitigation planting, since the property owners have agreed to stump those trees located between the house and the wetland in order to provide continued wildlife habitat value. Trees proposed for removal that are located within the outer 100-foot Buffer Zone can be cut to the ground with stumps left in place. Wells noted the Commission's decision is also based on the fact that the site is

heavily forested and also on the fact that plan modifications relative to proposed construction as discussed at the previous resulted in a net reduction in impervious surface.

Tatistcheff moved to close the hearing for DEP 125-1087, Belitz seconded and the motion passed unanimously. Tatistcheff moved to issue a Standard Order of Conditions with the Special Conditions requiring that trees proposed for removal that are located to the south and east of the house can be cut to the ground, with trees greater than six inches in diameter that are located to the north and west to be stumped and the requirement that a construction dumpster be located in the driveway turnaround for the demolition work. Verge seconded the motion and the motion passed unanimously.

7:35 p.m. (DEP 125-1085) Abbreviated Notice of Resource Delineation, Continued Hearing

Applicant: Chris Buono, All Things Real Estate

Project Location: 0 South Street, Map 5 Lots 54 and 56

Project Description: Review of 6,500 feet of Bordering Vegetated Wetland Resource Area delineation

Wells opened the continued hearing under the Massachusetts Wetlands Protection Act and the Carlisle Wetlands Protection Bylaw and requested a motion to continue to February 27, 2020 at 7:45 p.m. at the representative's request. The motion was moved by Tatistcheff, seconded by Young and passed unanimously.

7:35 p.m. (DEP 125-1086) Notice of Intent, Continued Hearing

Applicant: Peg Schafer

Project Location: 67 Heald Road

Project Description: Repair of a failed septic sewage disposal system within the 100-foot Buffer Zone of the Bordering Vegetated Wetland.

Wells opened the continued hearing under the Massachusetts Wetlands Protection Act and the Carlisle Wetlands Protection Bylaw.

Kurtis Platteel of Stamski and McNary presented the revised plan dated February 7, 2020, including the following changes based on comments at the previous hearing and during a recent site visit: all trees within the limit of work have been shown on the plan; the sewer line and vent have been relocated away from the 42-inch pine; a temporary, gravel construction entrance has been added, which will be loamed and seeded upon completion of construction; trees located within the over-excavation area of the system that will require removal, including a 19-inch Maple and a 6-inch Pine, are now shown; the Limit of Work has been adjusted to provide tree protection for a 39-inch Pine that had been inaccurately located on the previous plan.

Platteel explained the system has been oriented with the location of the proposed system in an existing cleared area, in an effort to preserve large trees and existing vegetation in potential alternative locations. He noted the fact that the installation of the new system in the alternative location would increase tree removal costs by over \$20k, above and beyond the expenses associated with the repair of the system. He reported the BOH has approved the plan contingent upon ConsCom approval.

The applicant has agreed to remove the existing, embedded dog fencing that was not shown on the plan prior to the start of construction. Verge noted the Commission's determination is largely based on the fact that the location of the proposed system will result in less impact to the resource area than the alternative location, since it will preserve large, mature trees that provide valuable wildlife habitat.

Verge moved to close the hearing for DEP 125-1086, Tatistcheff seconded and the motion passed unanimously. Verge moved to issue a Standard Order of Conditions, with the Special Condition that the temporary construction entrance aggregate be removed, and the area loamed and seeded upon completion of construction. Tatistcheff seconded and the motion passed unanimously.

Farmers' Meeting - Land Use Planning and Reporting Forms

Desiree Ball - Woodward Conservation Land: Desiree reported grazing 5 adult goats and 5 kids during the 2019 season, which greatly aided in the ongoing invasive plant control work. In-Kind Services performed under her 2019 Agricultural License Agreement included the removal of the fencing located on the adjacent, now privately-owned property, with the help of volunteers from the Carlisle Conservation Foundation, the Carlisle Trails Committee and others. In order to use the pasture where the fencing was removed, temporary, electric-netting fencing was installed in sections of both the upper and lower pastures. Significant fencing repair work was also done throughout the season. Plans for the 2020 season include continued fence maintenance and repair and continued invasive plant removal and control with the help from the goats.

Desiree noted that goats are notorious for finding ways of getting out, reporting there were several escapes this past summer when her goats were always found dining on the neighbor's apple trees. Thankfully, they were returned safely to the barn with the help of several site contractors working on the new home construction project next door who have become quite fond of the herd.

Mark Duffy – Great Brook Farm State Park:

Bisbee Land:

2019 Report - Crop: 6 acres hay; Integrated Pest Management; Pesticides - none; Soil Amendments: manure, as needed; In-Kind Service: field edge mowing

2020 Plan – same as 2019 season

Cranberry Bog Field:

2019 Report: Crop: 2 acres Round-Up® ready corn/silage; Integrated Pest Management; Pesticides - Atrazine Drexel, Prowl H 2 O; Soil Amendments: manure, as needed; In-Kind Service; none listed

2020 Plan: same as 2019 season, with the exception of adding Glyphosate to IPM practices

Fisk Meadow:

2019 Report: Crop: 5 acres Round-Up® ready corn/silage; Integrated Pest Management: Atrazine Drexel, Prowl H 2 O; Soil Amendments: manure, as needed; In-Kind Service; field edge mowing

2020 Plan: same as 2019 season, with the exception of adding Glyphosate to IPM practices

Foss Farm:

2019 Report: Crop: 18 acres Round-Up® ready corn/silage; Integrated Pest Management: Atrazine Drexel, Prowl H 2 O; Soil Amendments: manure, as needed; In-Kind Service; field edge mowing and plowing/harrowing of the Foss Farm Community Gardens plots

2020 Plan: same as 2019 season, with the exception of adding Glyphosate to IPM practices

Greenough Land: 4 acres Round-Up® ready corn/silage;

2019 Report and 2020 Season Plan: Integrated Pest Management: Atrazine Drexel, Prowl H 2 O, Glyphosate; Soil Amendments: manure as needed; In-Kind Service: none reported

2020 plan: same as 2019 season

Hutchins and Robbins Fields:

2019 Report: 28 acres hay; Integrated Pest Management: none; Soil Amendments: manure; In-Kind Service: field edge mowing; no-till seed field

2020 Plan: same as 2019 season; no seeding indicated

Duffy reported 2020 marks his 33rd year at Great Brook Farm. He is currently farming in 4 other towns in addition to the fields he farms in Carlisle. He explained that he is essentially in the food business, producing feed for his cows, including not only grass but also corn as an energy source. He typically mows the fields 4 times per season. Yields vary from year to year by property, weather dependent. He is heavily involved in advocating for agriculture locally, as well as on state and federal levels. Herbicides are typically applied once per season using a ground tractor sprayer, dependent upon conditions.

The Commission requested that Duffy continue to monitor and maintain field edges, with particular attention to the Bisbee Land, where additional mowing efforts are needed in order to reclaim and maintain the extensive field edge clearing work done by a contractor hired by the town several years ago.

Dick Shohet/Mill Iron Farm – Fox Hill East:

2019 Report: Crop: 5 +/- acres mixed pasture grass; Organic Management; Soil Amendments: 400#/acre manure spread between cut (organic manure seems to discourage pests; In-Kind Service: chipped Fox Hill West; pushed back edges on whole of Fox Hill

2020 Plan: same as 2019

Shohet said they are no longer in retail and are downsizing considerably, contributing this to the difficulty in obtaining help and other factors. He continues work to push back the field edges using a brush cutter pulled behind a tractor, acknowledging that if you give it an inch, it will take a mile. When asked about the need to remove the remaining fruit trees planted by the previous farmers, Shohet said he does not have the capacity to remove them, but this is not an issue since they do not impede his mowing activities. Shohet praised the efforts of the DPW for filling a wet area between the East and West fields to improve access.

8:25 p.m. (DEP 125-10xx) Notice of Intent

Applicant: Wilkins Hill Realty

Project Location: Curve Street, Map 19, Parcel 19-39-X

Project Description: Construction of a proposed driveway, including tree clearing and grading with approximately 1,560 SF of wetland fill associated with the driveway crossing using an open-bottom box culvert; construction of a single-family home; installation of a water supply well; construction of a 1,610 SF Wetland Replication Area and associated grading

Wells opened the hearing under the Massachusetts Wetlands Protection Act and the Carlisle Wetlands Protection Bylaw.

Paul Kirchner of Stamski and McNary presented an overview of the plan and existing site conditions, where he said present conditions were nearly identical to those approved under a previous filing done several years ago when a Notice of Intent was required to obtain permit access to upland for soil testing activities. The site is largely woods and Bordering Vegetated Wetlands (BVW). The proposed driveway crossing will require approximately 1,560 s.f. of wetland fill; a 1,650 s.f. Wetland Replication Area (WRA) has been provided to mitigate the proposed wetland filling. A 17-foot span, open bottom box culvert with concrete headwalls is proposed to allow the passage of water under the proposed driveway. The Notice of Intent includes a Simplified Wildlife Habitat Evaluation which provides supporting details regarding the location of the proposed crossing.

Following Kirchner's review of the designs of the wetland crossing and the WRA, Tatistcheff requested confirmation that the wetland alteration to WRA ratio meets Mass DEP's Inland Wetland Restoration Guidelines. Kirchner agreed to obtain confirmation, noting there is area available to expand the WRA if it does not meet requirements. Noting that approximately 40% of the proposed house is located within the 100-foot Buffer Zone, Belitz asked if they had considered an alternative location that would place the house entirely outside or increase the distance to the BVW. Kirchner said the house is located in order to improve marketability by providing a potential location for a barn or other structure and potential expansion of the yard area in the future. He noted the fact that if they were to locate the house entirely in upland, elevations would require considerably more fill.

Following further discussion, Kirchner agreed to stake the proposed house box, septic system and wetland crossing prior to a site visit, to be scheduled for the next week. During the site visit, the Commission plans to also review an area of potential vernal pool habitat that was previously identified by a former ConsCom member who observed wood frog egg masses.

Wells requested a motion to continue the hearing for Curve Street, Map 19, Parcel 19-39-X to February 27, 2020 at 8:15 p.m. with the representative's approval. The motion was moved by Tatistcheff, seconded by Verge and the motion passed unanimously.

8:47 p.m. (DEP 125-10xx) Notice of Intent

Applicant: Gretchen Nelson

Project Location: 868 Concord Street

Project Description: Razing of an existing detached garage, construction of additions to an existing dwelling, installation of septic tanks for a new septic system and construction of a screen porch off an existing cabin, with work within the 100-foot Buffer Zone of a Bordering Vegetated Wetland and the Riverfront Resource Area

Wells opened the hearing under the Massachusetts Wetlands Protection Act and the Carlisle Wetlands Protection Act.

Paul Kirchner of Stamski and McNary presented the plan. The site is located along Buttrick Pond and Spencer Brook. BVW associated with Buttrick Pond projects a 100-foot Buffer Zone onto the property and much of the property is located within the 200-foot Riverfront Area associated with Spencer Brook. The existing detached garage and cabin are located within the 100-foot Inner Riparian Zone of the stream, with the cabin a minimum of 48 feet from the stream. The entirety of the existing dwelling is located within Riverfront Area and partially within the 100-foot Buffer Zone. The majority of the area within the vicinity of the existing structures has been previously cleared of natural vegetation up to the edge of the pond and bank of the stream.

Resource areas on site include Bank, Land Under Water, BVW, Bordering Land Subject to Flooding, and Riverfront Area associated with Spencer Brook. The BVW and Riverfront Area were delineated by David Crossman of B&C Associates. All proposed work, with the exception of the SAS, is within the Riverfront Area, with a portion of the proposed additions within the 100-foot Inner Riparian Zone. All proposed work is within existing lawn and driveway area, with 19 trees proposed for removal. Tatistcheff noted a portion of the Buffer Zone line is based on an old delineation. Kirchner confirmed – stating that no flags were set in that area.

Kirchner described the proposed work using a color-coded plan denoting existing and proposed work. The new septic system is located outside the Buffer Zone, the Riverfront Area, and well radius, and is required in order to accommodate the proposed additions to the existing dwelling. Construction of the patio and the installation of the septic tank and pump chamber, though within Riverfront Area, is within existing lawn and therefore an exempt activity. All trees proposed for removal are shown on the plan, with some required to accommodate the addition, some within close proximity to the house, some to expand the yard area and some dead/dying.

Wells asked Kirchner if there were a reason the Commission could not just assume the project site is entirely within Riverfront Area and could then get into the details of compliance with the regulations, noting the numbers are not dramatic in terms of change in impervious surface within the Riverfront Area. Kirchner said when they do these types of filings, it is safest when they come before a Commission to assume everything is most restrictive, but in this case, they did not want to set a precedent on the property. He said in this case, they hired a wetlands consultant and based the plan on those findings.

Verge asked how the new impervious surface works into the calculations. Kirchner referenced the NOI submittal which states the impervious surface area increase within the Riverfront Area is 784 s.f., which he said was a somewhat modest increase given the size of the property at 2+ acres. Wells noted the net change is assuming the patio is exempt. Kirchner said the patio is considered an exempt minor activity in accordance with the WPA Regulations because it is located within an existing lawn/previously disturbed area. Verge asked if the proposed screen porch will be constructed on sonatubes footings. Kirchner agreed to review the architectural drawings in order to provide that information.

Wells said the Commission will need more documentation and/or justification if they are going to accept that the site is not entirely within Riverfront Area. He requested that the applicant provide a report from the wetlands consultant with supporting detail, explaining the reasoning behind the delineation. The applicant will also be required to provide a report from the arborist who evaluated the property regarding the condition of the trees proposed for removal, including the 44-inch pine that is located well outside the Limit of Work and within a wooded area. He noted the large pine is located within the Inner Riparian Zone, which requires that the natural 100-foot vegetated buffer remain intact. Wells said the Commission is also not comfortable making a determination without some kind of field evidence. A site walk will be scheduled with the representative to occur prior to the continued hearing.

Tatistcheff moved to continue the hearing to February 27, 2020 at 8:30 p.m. with the representative's approval. Verge seconded and the motion passed unanimously.

FY21 Budget:

Staffing Requests: Verge reported the BOS has approved the increase in hours at Grade 6 and said it is her understanding that the BOS is the ultimate authority on the town budget. Wells said the Commission is in the process of finalizing a memo to BOS/FinCom in order to confirm the approvals.

Cranberry Bog WPA Filing Warrant Article/CPC Funding Potential: It is the Commission's understanding that the BOS is looking favorably upon approving the Article. Parra asked Verge to what extent can CPC funds be used for open space purposes and if CPC requires the submittal of a defined project for maintenance, such as for the funding a maintenance plan for the Cranberry Bog in the future. Verge said CPA funds cannot be used for ongoing maintenance but agreed it would be worthwhile to explore the possibility of whether the Cranberry Bog restoration work could be considered a conversion activity under the Preservation of Open Space CPC category once additional cost estimates have been obtained.

CPC Greenough Dam: Verge reported the CPC voted to move forward with the Commission's \$250k matching grant request at their last meeting, contingent upon state grant funding through the Dam, Levee and Seawall Repair and Removal Program offered by the Executive Office of Energy and Environmental Affairs.

Deer Committee – Public Input: Maple Street resident Jeanie Geneczko was in the audience and requested that the commission include in the meeting's minutes her input as well as an email sent to the Board of Selectmen by Don Allen, of Pilgrim Path:

Input to the Conservation Commission Meeting 2/13/2020

The attachment is an email sent to the Board of Selectmen by Don Allen, a Carlisle citizen. Don and I and other Carlisle citizens are opposed to the deer hunts instituted in 2018 by the Board of Selectmen.

With Don's permission, I am offering this email to you. And I will forward this email to Sylvia and Mary with the request that this electronic version be forwarded on to you. Please feel free to forward it on to others who you feel should be aware of its contents.

I am also asking that you include this email in tonight's CC minutes.

It contains the link to the Concord-Carlisle Minuteman YouTube video of Dr. Allen Rutberg's 11/21/19 talk, "Resolving Suburban Deer Conflicts: Hopes and Realities." Dr. Rutberg is the Director of Animals and Public Policy at Tufts University. The video can be found at <https://www.youtube.com/watch?v=1SonGERqBhw>

I would have liked for you to have been at the talk when it was scheduled, but I did not realize that you would be having a regular meeting that night and could not attend. This video is the next best thing. I found that I learned so much more listening to the presentation a second time.

Dr. Rutberg's talk was at the invitation of Carlisle citizens who question both premises upon which the Town Land deer hunts are based: 1. Deer in Carlisle are damaging forest under-story to a degree that requires intervention. 2. Bow-hunting on Town Land will provide a worthwhile reduction in Carlisle's deer density.

From Dr. Rutberg's presentation, we learned that whether or not Carlisle has a deer-related problem with our forest understory, the Town Land bow-hunts are not going to address that problem.

Town land deer hunts like Carlisle's fit the definition of a recreational hunt.

The full talk is worthwhile, but the first 30 minutes is critical to understand the reasoning and the data. The second 30 minutes review a promising contraception method for reducing the deer population. The last 45 minutes is a Q&A that centers on related questions of why town deer bow hunts don't work. The audience was involved for the entire time; no one left early that night. The questions flew back and forth.

The 2019 deer kill on town land was 3 males and 3 females. The three females killed count towards population control. The three males killed do not.

----- Forwarded message ----- From: Donald Allen <donaldcallen@gmail.com> Date: Wed, 8 Jan 2020 at 10:19
Subject: Video and summary of talk by Dr. Allen Rutberg To: Barney Arnold <Barney4Carlisle@gmail.com>, Alan Lewis <Alewis@carlislema.gov>, Kate Reid <KReid@carlislema.gov>, Luke Ascolillo <TownHall@carlislema.gov>, Nathan Brown <nathanincarlisle@gmail.com>

To the members of the Carlisle Board of Selectmen:

As you know from the email I sent to you on 11-05-2019, Dr. Allen Rutberg of the Cummings School of Veterinary Medicine at Tufts University gave a talk, "Resolving Suburban Deer Conflicts: Hopes and Realities", at the First Religious Society on 11-21-2019. Dr. Rutberg's talk was at the invitation of a group of Carlisle citizens who question both premises upon which the Town Land deer hunts are based: • Deer in Carlisle are damaging forest under-story to a degree that requires intervention. • Bow-hunting on Town Land will provide a worthwhile reduction in Carlisle's deer density.

A video of Dr. Rutberg's talk is now available on YouTube at <https://www.youtube.com/watch?v=1SonGERqBhw>. We hope that you, the members of the Board of Selectmen, will watch it. This is a man who both knows, and has contributed significantly to, the research related to our area of concern: managing our deer population in effective ways.

Some highlights from the talk:

- Only female deer matter with respect to population control.
- Females tend to stay where they are. Culling females on a certain parcel of land will have no effect on the density on another parcel as little as a mile away.
- With all forms of hunting, a density is reached where further hunting does not reduce that density. Different kinds of hunting have different minimum densities. Bow-hunting is particularly inefficient and has a larger minimum density than other forms of hunting.
- Despite a significant increase in the number of deer killed by hunters since 1966, the deer population has grown during that time.
- In suburbia, we have created an environment in which deer thrive. Deer densities in eastern Massachusetts are much greater than those in the rest of the state. Our yards are a better source of deer food than forests, particularly old-growth forests, where much of the food is beyond the reach of deer. Deer in eastern Massachusetts are well-fed and reproduce rapidly.
- The result? Deer population control by any form of hunting is very difficult, as the overall numbers indicate. And deer population control by bow-hunting is the most difficult, least efficient method of hunting.
- Dr. Rutberg's conclusions, based on extensive knowledge of the research:
 - o Bow-hunting will not address serious deer population issues.
 - o Archery hunts on suburban conservation land are primarily recreational.
 - o It is not accurate to tell the community that bow-hunting will solve deer problems.

The presentation was in three parts: approximately the first 30 minutes was devoted to discussion of the issues involved in controlling deer populations; my summary above draws from that part of the talk. The second part of the presentation was devoted to Dr. Rutberg's work leading a group at Tufts working on an innovative method of deer contraception that shows real promise. It is not yet generally available, but if we can definitively establish that we have issues with deer over-population, we should keep ourselves informed about the progress of this work. Finally, Dr. Rutberg took questions from the floor. This segment lasted about 40 minutes and was an excellent discussion.

Related to Dr. Rutberg's talk, the data from this year's hunt were presented at a recent meeting of the Deer Committee. 3 females were killed in the 2019 hunt. Last year, 5 females were killed. Massachusetts Wildlife estimates that there are between 30 and 60 deer per square mile in Carlisle. The area of the town's dry land is 15.4 miles² and so, by Mass. Wildlife's estimates, we have between 462 and 924 deer in town. The results of both hunts are obviously very small with respect to the estimated size of the deer population, or even just the females, and small with respect to the rate of deer reproduction (which in some cases increase in response to a cull). It is clear that our experience is consistent with Dr. Rutberg's assertions.

Whether or not we have a deer-related problem with our forest under-story, the Town Land bow hunts are not going to solve that problem. But these hunts come with costs borne by all of us, in the form of • added town government administrative costs, but more importantly, • making substantial parts of Carlisle's conservation land, an asset in which we have all made (and continue to make) a major investment, inaccessible for almost 15% of the year to anyone who is concerned about their safety or who do not wish to encounter dead or dying deer. While I can't cite definitive research on this, common sense strongly suggests that the stellar safety record quoted by those in favor of these hunts ("no human being has ever been killed in Massachusetts by a bow-hunter") is related to the fact that people sensibly avoid areas being hunted.

It is our sincere hope that the information provided by an expert of Dr. Rutberg's stature will be helpful in future decision-making about deer control in Carlisle.

Thank you.

Donald C. Allen 61 Pilgrim Path Carlisle

9:20 p.m. Executive Session - Discussion of potential land acquisition:

Wells requested a Roll Call Vote in order to enter Executive Session, without returning to a Regular Session at conclusion of Executive Session, in order to consider the purchase, exchange, lease or value of real property for two separate parcels in Carlisle.

Tatistcheff – Aye

Verge – Aye

Wells – Aye

Belitz – Aye

Young – Aye

Parra – Aye

Respectfully submitted,
Mary Hopkins
Administrative Assistant

All documents discussed can be viewed in the office of the Conservation Commission upon request