

**TOWN OF TUFTONBORO  
CONSERVATION COMMISSION  
October 16, 2017  
MINUTES**

**Members Present:** Steve Wingate, Chairman, Mike Phelps, Vice-Chairman, Lloyd Wood, Selectman's Representative, Larry Gil, Nancy Byrd, Mark Howard, Nancy Piper, Members, Ray Everest, Alternate.

**Staff Present:** Lee Ann Hendrickson, Administrative Secretary.

**Guest:** Ian Whitmore.

Chairman Wingate opened the meeting at 6:35 PM.

**I. Consideration of Minutes**

**September 13, 2017**

**Correction:** Page 1, Section A., 6<sup>th</sup> paragraph; strike "one day of field work"

**It was moved by Larry Gil and seconded by Kate Nesbit to approve the September 13, 2017 Tuftonboro Conservation Commission minutes as amended. All members voted in favor. The motion passed.**

**September 18, 2017**

**Corrections:** Page 2, Section C.; strike "Contract" in title & replace with "Services"

Page 2, Section C., 3<sup>rd</sup> paragraph; add "LCHIP" following "\$2,000" and add "\$3,500 for his services to file the ARM grant application."

Page 2, Section C., 7<sup>th</sup> paragraph; strike "\$6,000" and replace with \$1,000 from the 2017 budget and \$5,000 from the 2018 budget."

Page 4, Section V., Great Meadow, 4<sup>th</sup> paragraph; change "Walker" to "Wingate"

**It was moved by Mike Phelps and seconded by Nancy Piper to approve the September 18, 2017 Tuftonboro Conservation Commission minutes as amended. All members voted in favor. The motion passed.**

**II. Discussion Items**

**A. NHACC Annual Meeting**

Steve Wingate stated the NHACC annual conference is scheduled for 11/4/17 at Pembroke Academy; noting he and Nancy Byrd have registered for the conference.

Ray Everest requested Staff to submit his registration.

**B. NH Land Trust Coalition**

Larry Gil reviewed his report (compiled by his attendance at the workshop "Getting Above it All; Using Drones (UAVs) for Conservation"), see attached.

The Commission discussed joining the NH Land Trust Coalition as a member and agreed not to pursue such.

**C. Conservation Public Education Efforts**

○ **Conservation Commission Website/Social Media Demo**

Mark Howard stated he and Ray Everest would have a demo for the Commission next month.

**D. Rick Van de Poll Services**

Steve Wingate stated he has not received a cost estimate or contract from Mr. Van de Poll and requested Staff prepare such in order to encumber 2017 funds.

**E. Joan Gale Conservation Easement**

Steve Wingate stated Staff emailed the draft conservation easement for the Joan Gale property and requested the Commission review such for consideration at the November meeting.

**F. Nesbit & Lawall Conservation Easement**

Kate Nesbit stated she and her sister, Sally Lawall, are considering placing a conservation easement on each of their properties, which share a common boundary line; noting the properties currently abuts a 31-acre parcel that LRPC currently holds a conservation easement on. She oriented the Commission to the location of the property and reviewed the plan. She stated her parcel is located at 17 Friends Point Road and Ms. Lawall's parcel is located at 18 Millstone Point Road; noting the total acreage of the parcels is 4.4 acres. She stated their intent is to secure the land from being further developed and noted the easement would include a strip of land to the shorefront.

Steve Wingate stated the Commission reviewed the proposal last month however, the plan was not available at the time of the review.

**G. Libby Museum Proposal**

Referencing a memo to the BOS from Alana Albee, Director, Libby Museum, dated 10/3/17, Lloyd Wood read the following; "The Town of Tuftonboro currently holds in Trust the land known as "The Libby Park Property", a 1.82 parcel along Rt. 109 and Mirror Lake, including 390' of shore frontage. This property was originally left by Dr. Henry F. Libby in 1933 as one of two parcels of land." He stated the proposal includes the proper establishment of The Libby Park from in the Town of Tuftonboro from the point where the path currently ends in the Town of Wolfeboro. The proposal includes the extension of the path, clearing of brush and fallen trees to allow a clear view of the Ossipee Range, placement of benches and picnic tables and signage (carry in/carry out policy, no boating and details of the mountain range). He stated the BOS are supporting the project.

Mike Phelps stated the Town has a conservation easement on the property however, he is unsure how the easement reads.

Larry Gil stated people are concerned that there will be a substantial clearing of land and such would detract from what exists today (wildlife).

Steve Wingate asked Mr. Wood if the BOS sees the Commission having a role in the matter.

Lloyd Wood replied yes. He stated a question that arose was access from the snowmobile association and whether there is an agreement with the Town.

Ian Whitmore stated there could be a conflict between the deed and the conservation easement.

Larry Gil reviewed the Fiduciary Deed.

Lloyd Wood, Larry Gil and Steve Wingate volunteered to assist with the project.

**H. Mirror Lake Watershed Committee**

No report.

**I. Mirror Lake Protective Association Report**

Nancy Byrd stated a committee has been formed that will focus on acquiring easements around Mirror Lake. She requested Staff forward a conservation easement template. She stated she and a UNH student completed sampling last week.

**III. NH DES Applications**

**Lane's End, Inc./#2017-02930**

**Lanes End Road**

**TM #2-1-71**

New Standard Dredge & Fill application to remove existing fingers and replace with 9 fingers and eliminate two fingers to be supported by 2 pilings each. Fingers will be enlarged and 7 fender fingers added. Reviewed by Nancy Piper; no objection.

**Dustin J. Bossey/#2017-02681**

**103 Cow Island**

**TM #37-1-235**

NHDES approved Minimum Impact Expedited application to construct an 18'x18' perched beach.

**American Youth Foundation**

**147 Canaan Road**

**TM #34-1-1, 35-1-2**

NHDES approved Minimum Impact Expedited application to install a temporary seasonal aluminum dock structure, to be installed on an existing beach area.

**Doug & Karen Beane/#2017-02140**

**178 Cow Island**

**TM #37-1-24**

NHDES requested additional information.

**YMCA Camp Belknap/#2017-02211**

**11 Chase Point Road**

**TM #39-1-13**

NHDES approved Minimum Impact Expedited application to replace existing concrete launch ramp with 21 engineered concrete ramp tiles and repave apron above launch ramp.

**Chase Realty Trust/#2017-02258**

**8 Foxwood Way**

**TM #38-3-1**

NHDES requested additional information.

**IV. Correspondence**

- Society for the Protection of NH Forests; received letter regarding routine ground monitoring of the Town's 2-acre deed restricted property located along Windleblo Road
- NHACC Annual Meeting; 11/4/17 at Pembroke Academy
- NHACC Annual Membership Dues

**It was moved by Nancy Piper and seconded by Kate Nesbit to renew the NHACC Annual Membership Dues in the amount of \$296. All members voted in favor. The motion passed.**

**V. Old Business**

**2018 Budget**

Steve Wingate stated he presented the budget to the BOS and Budget Committee; noting the budget was approved by both.

**Invasive Species – Great Meadow**

Lloyd Wood stated the Road Agent has not addressed the Japanese Knotweed at the Great Meadow as he was asked.

Steve Wingate stated bittersweet and buckthorn are also present at the site.

Mike Phelps stated that if treating such is going to be a major project that it should be addressed through the BOS' budget.

Lloyd Wood stated there were seven areas sprayed throughout the Town.

Mike Phelps confirmed the areas sprayed came out of the Road Agent's budget.

**Well Water Testing Initiative**

Nancy Piper stated she spoke with Lou Barinelli, NHDES, who informed her the report/test results would be forwarded to her tomorrow.

Lloyd Wood asked if the program is scheduled for 2018.

Nancy Piper stated there is differing opinions on the Commission with regard to such.

**Adjacent Property to Bentley Conservation Easement**

Kate Nesbit stated the property owner of a 90-acre parcel adjacent to the Bentley Conservation Easement is interested in placing a conservation easement on the property.

**Great Meadow**

Steve Wingate stated he is willing to host future hikes of the property. He stated Jim Bean placed material at the trailhead to make a parking area

**Conservation Commission Apparel**

Staff reviewed styles and pricing of such; noting she would order orange vests.

**VI. New Business**

- LRPC hosting Aquatic Invasive Weeds workshop at the Squam Lakes Science Center on 10/23, 6-8PM
- BOS signed a Current Use Change Tax slip for \$5,000
- Appointment of Alternate

Ian Whitmore expressed interest in being an Alternate for the Commission.

**It was moved by Nancy Byrd and seconded by Kate Nesbit to recommend appointment of Ian Whitmore to the Conservation Commission. All members voted in favor. The motion passed.**

**VII. Non-Public Session**

Mike Phelps recused himself from the non-public session.

Mike Phelps and Ian Whitmore stepped out of the meeting.

Chairman Wingate appointed Ray Everest, Alternate, to sit in for Mike Phelps, Member.

**It was moved by Larry Gil and seconded by Nancy Piper to enter non-public session at 8:19 PM to consider the acquisition of real property (RSA 91-A:3,II(d)). Roll call vote; Steve Wingate-yes, Lloyd Wood-yes, Mark Howard-yes, Larry Gil-yes, Kate Nesbit-yes, Nancy Piper-yes, Nancy Byrd-yes, Ray Everest-yes. The motion passed.**

The Board re-entered public session at 8:38 PM.

**It was moved by Lloyd Wood and seconded by Nancy Piper to seal the October 16, 2017 Tuftonboro Conservation Commission Non-public Meeting minutes. Roll call vote; Steve Wingate-yes, Lloyd Wood-yes, Mark Howard-yes, Larry Gil-yes, Kate Nesbit-yes, Nancy Piper-yes, Nancy Byrd-yes, Ray Everest-yes. The motion passed.**

Chairman Wingate stated the nonpublic session minutes of October 16, 2017 were sealed by a 2/3 vote as required by law.

**It was moved by Ray Everest and seconded by Kate Nesbit to adjourn the October 16, 2016 Tuftonboro Conservation Commission meeting. All members voted in favor.**

There being no further business before the Commission, the meeting adjourned at 8:39 PM.

Respectfully Submitted,

*Lee Ann Hendrickson*

Lee Ann Hendrickson

#### **Larry Gil's Report on his attendance of the workshop Getting Above it All; Using Drones (UAVs) for Conservation**

On October 12, 2017, I attended the annual fall meeting of the New Hampshire Land Trust coalition. The meeting was held in the conference room of the NH Fish & Game offices. I counted approx. 60 people in attendance.

Introductions The new Director of NHF&G's Non Game and Endangered Wildlife Program Michael Marchand introduced himself to the audience. He is replacing John Kantor, who has moved onto a new position in Washington DC. The program will continue to focus on the production of Tier I and Tier II wildlife maps and site specific maps for key species such as Blanding Turtles and NE cottontails (which also require land management practices).

Principal speaker Steve Michaud Senior Vice President of Doucet Survey is a licensed Land Surveyor which is thought to be the only surveying firm in NH that routinely employs the use of "unmanned aerial vehicles" UAV's as part of their day to day work operations.

A lot of information was dispensed during this and the following presentations and the speakers allowed for questions from the audience during the presentations, there were limited handouts. I have included some questions and responses as appropriate in this recounting. Mr. Michaud provided an overview of the types of UAV's routinely employed in private and commercial practice fixed wing and rotary. Fixed wing is not typically employed in New England because of terrain and vegetation considerations, more typically they are employed in open flat terrain such as agricultural applications in the Midwest and Western parts of this country. Rotary UAV's provide better utility in New England for smaller land parcels with variable terrain with difficult access to land forms such as wetlands and bogs. Given the dense vegetation and variable terrain applications of UAV's improved during "leaf out" and by locating suitable vantage points to maintain visual contact with the craft.

The advantages of rotary UAV's are speed, safety and ability to deploy multiple outputs photos, infrared, video and different camera types. Doucet Survey employs a DJI Phantom 4 which costs \$1500 costs includes multiple battery packs.

Prices increase are higher with more equipment such as Landar (a form of radar). Total costs including software was \$10,000.

A typical flight takes 15-25 minutes but the total time requirements for a typical application include 2.5 hours of prep work, 9.5 hours in the field and 2 hours of post-production utilizing the appropriate software. A question was posed about the accuracy. Accuracy aside from the quality of the equipment is based to some degree on the amount of overlap of the photos. Doucet surveys applications are survey quality, they typically have 80/60 overlap which means 80% overlap on the vertical aspect and 60% overlap on the horizontal aspect. Imagine multiple pictures of the same feature or flight path, the multiple pictures allow the software to triangulate that position very accurately the estimated preciseness was presented as being 0.2ft on the horizontal aspect and 0.3 feet on the vertical, each pixel depicts 1.3 cm on the ground. While not as good as a typical surveyor's accuracy it nevertheless provides an excellent picture of the site conditions. Doucet employs in addition to easily recognizable features such as a rock, building corner ground control points along the flight path which allowed them to accurately and easily know where they were when reviewing and interpreting the product. Doucet surveys are a commercial operation and employ a licensed UAV pilot who has passed requirements posed by the FAA regulations are found at FAA part 107. They also adhere to FAA part 107 protocols which set guidelines and standards for flying over people, private property etc. Some examples, UAV must be under visual sight of the pilot at all times, cannot fly higher than 400 ft.

A number of questions were posed by the audience regarding privacy issues and where the drones can or cannot fly. Doucet carries a \$1M insurance policy, routinely notify all abutters and property owners prior to and during any flights, do not let the drones fly farther than 2000 ft. from the pilot.

Interestingly, Doucet Survey presented an application of their services at the RIB site in Wolfboro. Over the winter the Wolfboro DPW noted that water in Nineteen Mile Brook was not flowing as it normally, by employing the drone they were able to pinpoint the location of a beaver dam.

The next presenters were from Ausbon Sargent Land Preservation Trust (ASLPT) including Debbie Stanley, Executive Director and Peter Bloch from Earth Aerial Productions. Peter is also a commercial UAV pilot who was hired by ASLPT to conduct a series of flights on their properties as another tool for conducting the annual boundary and property inspections. They emphasized that the use of UAV's did not nor would not replace "boots on the ground" boundary walking, but would help them gain access to sites which were difficult to access such bogs and wetlands.

Peter Bloch became interested in UAV's several years ago obtained his FAA license he employs the same type of UAV as Doucet. They made a point of conveying how important it was to include lots of planning in preparation for the surveys to maximize the utility of the UAV's such as the geography of the site(s), clustering target sites to minimize travel time knowing where the best high points were and their accessibility. Peter then presented an overview of how he went about conducting his work, lots of site preparation utilizing Granit, Google Earth, plot plans etc. to establish a series of zones where the UAV's would fly. He described a lawnmower pattern of successive overlap, his requirements being less strict as 50/30, 50% vertical overlap and 30% horizontal overlap. He depicted the flight paths as a series of cones that overlapped 50% along the vertical access and 30% along the base. By also using available online products that provide latitude and longitude such as Google Earth and Granit he can very accurately locate any changes. He also implemented a series of numbered "way point" along each flight path which allowed him to easily know where they were in series pictures by locating the nearest numbered way point. Some questions were posed regarding using photographs vs video. Photographs allow you to accurately locate features, while a video does not. Videos however have turned out be a very valuable public relations tool for ASLPT. They took videos of the particular properties and provided them to the owners, who absolutely loved them as gifts and ASLPT was confident the videos were instrumental in their acquisition of other properties.