



**CONSERVATION COMMISSION**  
**Town of Greenland • Greenland, NH 03840**  
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**MINUTES OF THE CONSERVATION COMMISSION**

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Wednesday, November 08, 2017 – 7:00 p.m. – Town Hall Conference Room

*Members Present:* Bill Bilodeau, Laura Byergo, Chip Hussey, Sarah Rowe

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Chair Byergo opened the Conservation Commission meeting at 7:01 p.m. A roll call was taken by the Chair; she announced a quorum was present and the meeting was being recorded.

1. Approval of Minutes: Wednesday, September 13, 2017 and Wednesday, October 11, 2017

Approval of minutes was continued to the next meeting.

2. Falls Way Site Walk

A letter will be sent to Falls Way residents informing them of a possible site walk on their property between Sunday, November 26, 2017 and Sunday, December 11, 2017. S. Rowe and Chair Byergo may do some site walks during the week. However, the Board is planning to do site walks Sunday, November 26, 2017 and Saturday, December 02, 2017.

3. King Tide Photo Contest

B. Bilodeau explained that a post was set at the end of Tide Mill Road to mark the high tide. The normal high tide was marked as well as the King Tide. Although it hasn't been measured yet, Chair Byergo felt it may be close to one foot. Pictures were taken during King Tide. As part of the description, she suggested "endangered salt marshes". There is the potential for drowning salt marshes if the tidal changes are too quick. The post was set to indicate what could happen to the upper edge of the tidal marsh.

Chair Byergo has spoken to Larry Day and he's interested in helping with conservation issues, but not in becoming a member. She asked him if the Conservation Commission could put up a pole on the golf course; it would be visible to anyone playing golf and be on the Bay. He thought he could get approval, and will get in touch with Chair Byergo within the next few weeks.

4. Review: Wetlands Permit Application

Owner/Applicant: Town of Greenland

Road/Drainage Improvements – Willowbrook Avenue & Great Bay Drive West

Great Bay Drive West: C. Hussey explained that Great Bay Drive West was originally a private road over private property. The Town was able to get the owners to give the Town a right-of-way on the property

for that road. However, it's not the normal wear-cover road in Greenland and there are difficulties in redoing the road. The width will still be relatively narrow which presented challenges for the engineer. Chair Byergo added that the application was reviewed by the Natural Heritage Bureau; a letter of support was received from Amy Lan, Ecological Information Specialist. Based on the letter, Chair Byergo wasn't concerned with wildlife species being able to navigate the new culverts. She had no issues with Great Bay Drive West.

C. Hussey had some concerns about the Willowbrook Avenue portion of the application. Five years ago, the Conservation Commission asked for money to be set aside as part of the CIP for any culverts that were installed for environmental reasons. The Willowbrook Avenue culvert was one of those; if it was ever replaced, the Conservation Commission wanted one that was more environmentally friendly. That would allow the non-game wildlife that followed the brook to migrate underneath the road. Presently, there is currently a round culvert; the Town wants to replace it with a similar culvert which would present the same conditions. C. Hussey expressed his concerns to the Town three years ago while Chairman of the Conservation Commission. The Commission wanted a box culvert installed for the reasons mentioned above. He recently discovered that was not the intention; a round culvert would be less expensive. Chair Byergo noted that the planned culvert was a round 48" concrete pipe, which would be less likely to collapse. C. Hussey stated there could be breakage with the concrete because it was a porous material and absorbs water. He continued that this type of culvert will prevent continuity between the open space to the east (Greenland) and the open space just beyond the upstream side (Stratham behind Pheasant Run and Stratham Hill Park).

Chair Byergo stated that given the amount of conservation land around that area, the Town should be trying to do as much as it can to help the wildlife. She noted that it was a larger culvert and questioned why a box culvert is that much better than what was proposed as long as it wasn't perched or broken. C. Hussey responded that a 48" box culvert would allow more water flow and be less likely to plug. The 48" round would start small and become larger, allowing branches to build up. At low flow, it would allow wildlife to follow along the stream that may not necessarily want to be in the water; the normal life cycle at the time may not be to travel the stream but to follow it along. Chair Byergo clarified that the box culvert was built to not channel directly into the water itself. C. Hussey added that the box culvert also allowed for a natural bottom to be in place.

Chair Byergo stated that irrespective of the other elements, basically the same type of culvert is being considered, even though it's bigger; the Town should be asked to reconsider the type of culvert. C. Hussey responded that he was going to ask DES; the Selectmen haven't reviewed the application. However, it was signed by the Town Administrator. Chair Byergo suggested that if the application wasn't signed by the Conservation Commission, the Town may reconsider the application. C. Hussey stated that the Conservation Commission didn't have to sign the application; it was a complete wetlands permit with major impact because Willowbrook Avenue and Great Bay Drive West were combined.

MOTION: C. Hussey moved a letter be sent to NHDES Wetlands Bureau, 29 Hazen Drive, PO Box 95, Concord, NH. The Conservation Commission disagreed with the portion of the Greenland Wetlands Permit Application, Road/Drainage Improvements – Willowbrook Avenue and Great Bay Drive West pertaining to the design of the Willowbrook Avenue culvert. The culvert does not maintain the continuity and historically does not allow the passage of aquatic animals or non-game wildlife. The applicant should redesign the culvert, utilizing a properly sized box culvert to accommodate that need. This particular stream crossing adjoins both open space in Greenland and major open space in the Town of Stratham. Second – B. Bilodeau

DISCUSSION: C. Hussey clarified there wasn't a problem with Great Bay Drive West due to its limitations.

The Conservation Commission spoke to Benjamin Dreyer, Underwood Engineers Project Manager, by phone. C. Hussey informed B. Dreyer that he was on speaker phone and was being recorded. B. Dreyer was asked by Chair Byergo the percent of the impervious area, new and existing, to the overall project site; 83% seemed high. Where was the larger part of the 47,835 sq. ft. and the 59,595 sq. ft.? B. Dreyer responded that pavement widths were increasing and is concentrated in the right-of-ways; they weren't looking at a big parcel. Most of the area is currently paved; they are adding minor pavement. The pavement width on Willowbrook is increasing to 21'; currently some spots are only 18' wide. Portions of Great Bay West are 18' wide; the entire width of the road will be increased to 18'. The percent of the impervious area (new and existing) to the overall project includes Willowbrook and Great Bay Drive West.

C. Hussey told B. Dreyer that his concern was Willowbrook, and questioned the round concrete pipe rather than the box culvert. B. Dreyer responded that the idea was to replace what's currently there. The existing metal pipe would be upsized and is allowed by stream crossing rules. C. Hussey noted they were running between two open space areas, adding that the Conservation Commission recommended a box culvert five years ago. B. Dreyer stated there may be an opportunity for discussion with the Town, but cost was a consideration. A box type structure was more expensive; that could be a factor. C. Hussey asked if what was proposed maintained continuity for the environment, both below and above the stream. B. Dreyer stated it wouldn't do anything less than the existing. He acknowledged it would not function like a box culvert. He added that the stream flows during wet weather, but dries up. C. Hussey stated it's considered a perennial stream. He continued that he was very disappointed with the Town's plan, and would not vote to support the application.

S. Rowe questioned the cost of a box culvert vs. the round concrete. Going on rough numbers, B. Dreyer responded that the box culvert being done in another town is 40', and has a total cost of \$170,000; there's not much road work involved with that culvert. The cost averages \$4,000 per foot. The proposed concrete pipe on Willowbrook is approximately \$1,000 per foot. Noting that this is a significant increase in cost, the Conservation Commission still considered that given the amount of open space and conservation land in the immediate area, a box culvert should be considered in this particular case.

AMENDED MOTION: C. Hussey moved a letter be sent to NHDES Wetlands Bureau, 29 Hazen Drive, PO Box 95, Concord, NH. The Conservation Commission disagreed with the portion of the Greenland Wetlands Permit Application, Road/Drainage Improvements – Willowbrook Avenue and Great Bay Drive West pertaining to the design of the Willowbrook Avenue culvert. It was recommended that the Commission not sign the present plan as there may be other options available. The present plan doesn't allow for continuity between the wetlands to the west of Willowbrook with those to the east. Second – S. Rowe; all in favor. MOTION CARRIED

The wetlands permit application was not signed.

##### 5. Van Etten Drive Open Space

Lennie Lord, Rockingham Conservation District, recommended Chair Byergo contact Matt Tarr, UNH Professor, about the open meadow at Van Etten Drive. He will be bringing a forester with him; Chair Byergo is hoping to have him look at the trail also. Chair Byergo will meet with M. Tarr on Monday, November 20, 2017, 9:15 a.m. at Me and Ollie's. She clarified he would be looking at the open space

and make suggestions on what could be done for a management plan. The Commission would then approach the Selectmen about maintaining that area as an open shrub habitat, which would be a Conservation Commission project. There would need to be a budget for the mowing and they would work on keeping the invasive species out of that area. She felt the abutters would be very supportive and, hopefully, get some of the abutters involved as volunteers. A note would be sent to the abutters informing them of the plans.

#### 6. Liberty Hill Trail Update

The trail survey was reviewed. Members were disappointed with the information that was available. Chair Byergo suggested the surveyor meet with the Conservation Commission in order to move things along. C. Hussey will contact the surveyor as well as Troy Thibodeau about meeting with the Conservation Commission. Marking the trail was discussed. Chair Byergo stated that once monitoring was completed at Falls Way, they could focus on the trail and clearing the trail.

B. Bilodeau questioned if Falls Way monitoring was a pressing issue. Chair Byergo responded that it was. The Conservation Commission had not done any monitoring and it was one of their responsibilities as listed in the RSA. She wanted to make a good faith effort to monitor the easements.

#### 7. Membership Drive

S. Rowe developed talking points for the membership drive. Chair Byergo prepared a draft for an ad and distributed it to members. The cost would be approximately \$1 per word. If the ad were run, a picture may be included at an additional cost. B. Bilodeau suggested a booth at the Pie and Craft Festival on Sunday, November 19, 2017. S. Rowe suggested having a sign-up sheet for the Conservation Commission.

Responding to a question from Dennis Malloy, Van Etten Drive, Chair Byergo stated that the goal of the membership drive was to have seven members and an alternate. They would also like to have a list of volunteers to help with various community projects.

#### 8. Cluster Housing Options

Chair Byergo commented there was quite a bit of information available and she would like to discuss cluster housing options at a later date.

#### 9. GBNERR Septic System Workshop

Chair Byergo and S. Rowe attended the workshop aimed at municipal officials. S. Rowe commented that it was very informative and very well done. Chair Byergo said the workshop explained that septic systems do not control nitrogen, which will be an ongoing problem. There has been research done on bio-reactive trenches filled with wood chips which should be able to be retrofitted to a normal septic system and would capture the nitrogen leaving the septic system. It's approximately 2' wide and leach field water goes through the wood chips; the wood chips turn the nitrogen into a gas so it doesn't go back into the ground water system. Chair Byergo was disappointed that the cost reported in the workshop was approximately \$8,000 to \$12,000. It was recommended that septic systems should be pumped every two to three years, depending on use. However, the experts would like to have it done every year.

10. Other Business

S. Rowe suggested that monthly announcements on topics useful for homeowners be posted on the Conservation Commission page of the Town website and Facebook. This will be discussed further at the December meeting.

11. Adjournment

MOTION: C. Hussey moved to adjourn at 8:19 p.m. Second – B. Bilodeau; all in favor. MOTION CARRIED

NEXT MEETING
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Wednesday, December 13, 2017 – 7:00 p.m., Town Hall Conference Room

Respectfully Submitted: Charlotte Hussey, Secretary to the Boards

Approved: 