

Town of Pelham, NH
Pelham Conservation Commission
6 Village Green
Pelham, NH 03076-3723

MEETING OF 01/11/17

Members Present:

Karen Mackay, Louise Delehanty,
Paul Gagnon, Kaela Law
Ken Stanwick

APPROVED 05/10/17

Members Absent:

Paul Dadak, Mike Gendreau,
Lisa Loosigian

Chairman Paul Gagnon brought the meeting to order at 7:01 p.m. Mr. Gagnon introduced Ken Stanwick, our newest Conservation member. Mr. Stanwick is an alternate member and he will be voting at this meeting.

Mr. Gagnon complimented the work of Herbert Associates on the Bayberry Woods development. After the initial engineering, the town realized there were trails and a large bridge on the private property that was being dividing into lots. The town approached Mr. Peter Zohdi of Herbert Associates and Mr. Meissner, the developer of the parcel, to discuss the existing trail. Mr. Meissner agreed to donate 4 small parcels of land to the town in order to allow the passage of the trail. Lot lines were adjusted for the new parcels and the parcels were deeded to the town. Herbert Associates set the monumentation for the parcels a few weeks ago. Mr. Gagnon along with the town forester, walked the parcels today and blazed the boundaries of the lots. The trail is now on town land. Herbert Associates performed this subdivision work pro bono for the town. Mr. Gagnon thanked Mr. Gospodarek and his company.

NEW BUSINESS:

Map 39 Lot 1-54-2, 1-54-3, 1-54-4, 1-54-5, 1-55	Sherburne Road – Proposed conservation subdivision off Sherburne Road with wetland conservation district (WCD) impacts – Presentation by Mike Gospodarek of Edward N. Herbert Associates, Inc.
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The parcels are located between Sherburne Road and Veterans Memorial Park. The project came before the Planning Board and Conservation about 12 years ago. At that time, the project came off Sherburne Road between 2 house lots. The project was a townhouse development with a high density of units. The new project is a conservation subdivision with 21 house lots. The road will be curbed and guttered and will become a town road when the project is complete.

There will be no wetland impacts on the project.

Two detention basins will serve the development. Proposed pond number one will be located on the west side of the property and will accept storm water from the cul-de-sac. The drainage area for this pond will be from the intersection to the west. Impacts to the WCD will be approximately 5,590 square feet (sf). A small portion of the pond will be within the WCD, but most of the impacts will be for grading. The approximate depth of the pond will be 3 feet. Storm

water will be collected in catch basins in the cul-de-sac, be directed to the detention pond, and then discharged overland into the wetland. The catch basins have 5 foot deep sumps. The sumps will capture sediments, therefore the sumps will need to be cleaned out at least once per year. This system is easy to clean and maintain. There will be standing water in the sumps most of the time.

Proposed pond two will be on the east side of the housing units approximately in the center/north of the property. This pond serves from the entrance to the development and from the intersection east. Impacts to the WCD will be about 1,890 sf., mostly for grading. The pond will be about 3 feet deep. About 4 feet of fill will be needed in the WCD to blend the pond into the existing topography. This pond has a forebay, which takes the first flush of a storm and settles out the heavy solids from storm water. This material will need to be cleaned out of the forebay periodically. Water exits the pond through a pipe that directs the water to a level spreader.

The purpose of the level spreader is to spread the water flow across a long level area to reduce the velocity of storm water to prevent erosion of the slope. The level spreader is made of natural materials such as stone. Calculations are made to determine the type/size of stone needed for each application. The stone slows the water then the water flows over the grassy downslope side of the basin toward the wetland.

The soils in the area of the ponds is a type C soil, which means the infiltration rates are very slow. The basins are designed for a 50 year storm event, as town regulations require, which is roughly 6.8 inches of rain. The developer must make sure water flow off the land does not increase after development of the land.

Both basins are intended to be ponds and will eventually vegetate as wetlands. The ponds will not necessarily stay wet as they are designed to drain. Both ponds will require maintenance from the town including mowing regularly. If the town does not mow them regularly then the ponds will fill in with vegetation and lose function over 5-6 years. If mowed and kept clean, the volume of water that can receive treatment will stay the same. If not, then the water capacity of the pond will be reduced. The town is responsible for this maintenance when the development is completed. There will be a drainage easement for the ponds and for areas of piping overland.

There is currently a trail on the property. Herbert Associates have drawn the trail to travel to the west of basin one and within the open space area. The trail may need to be rerouted slightly in order to avoid possible obstacles. Herbert Associates is willing to work with the town to finalize the trail location. Mr. Gagnon asked if we could have a little more space on the corner of lots 15 and 21 so the trail could stay off private lots. Lot 15 can probably be adjusted because it is large, but lot 21 is small and may not be able to be adjusted.

A site walk has been scheduled for January 21, 2017 at 8:00 a.m. Mr. Gospodarek will make sure the trail and detention ponds are flagged. The Commission plans to vote at the site walk.

Map 14 Lot 3-90	Mayflower Drive – Proposed subdivision with WCD impacts – Presentation by Mike Gospodarek of Edward N. Herbert Associates, Inc.
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This project went before the Zoning Board to try to get a conservation subdivision so the developers would not have to cross the gas line. Zoning did not agree the lot should be developed as a conservation subdivision. This development will extend Mayflower Drive about 500 feet ending in a cul-de-sac. This project consists of 5 new house lots and one existing lot with an existing house. The current home is located off the end of Mayflower Drive. The driveway of the existing house will be relocated onto the new proposed road.

The high point of the new section of road is about half way down the road. Water will flow west from this point down to the low point in the cul-de-sac. Water will also flow east to the other low point on the site where the new section of road meets the existing Mayflower Drive. Some water from the existing Mayflower Drive will be collected and treated in the new swale and pond. From the low points storm water will be piped south toward two swales and the detention pond.

The detention pond will be fed by two swales. One swale will enter the pond on the west side and one will enter the pond on the south-east side. The west side swale will receive water from the cul-de-sac. The east side swale will receive water from the beginning of the new section of road. The east side swale will be redesigned because the current plan has the swale drawn over the gas line and this does not meet the gas company's requirements. Mr. Gospodarek will draw up a new design after the town engineer and the state have reviewed the plans and made comments. The storm water drainage must be piped over the gas line. The gas company does not allow swales to run over the gas lines. They have dealt with erosion problems above the gas lines in the past caused by swales. Mr. Gospodarek and his company will be digging test pits with the gas company tomorrow so they will know the elevation of the gas line in order to avoid problems with the line.

The longer piping will increase the velocity of the water; therefore, the design will need to be adjusted to slow the water as it exits the pipe. The swale will be redesigned from the end of the pipe to the detention pond. This swale will be shorter in length at about 75-100 feet, but may be wider. There is plenty of space in the area to adjust the design. The requirement is that water running through the swale must take 10 minutes from beginning to end and be 4 inches or less in depth. This time allows solids to fall out prior to the water entering the basin.

The pond has a typical outflow structure with a weir and a level spreader. The detention pond will be 3 feet deep. The pond has been engineered for the 50 year storm event. Infiltration will occur from this pond. The soil type is a B on the verge of a C soil. Infiltration rated for these soils is between 0.6 and 6 inches per hour.

There will be 12,007 sf of WCD impacts.

Mr. Gagnon asked if the basin could be pulled farther out of the WCD area. Mr. Gospodarek explained this was not possible because of the topography of the site and the high water table. This site has a seasonal high water table of 2.5 feet. The basin must sit above the seasonal high water table. A 4-5 foot depth to the water table is needed in order to cut into the ground to move the basin upslope. If the basin is moved upslope on this lot there will be a problem with the grade on the downslope side going toward the wetland. Mr. Gospodarek must follow state regulations

which require a 3:1 slope. This requirement is difficult on a moderately steep site such as this site. The site is less than 10 acres.

Mr. Stanwick expressed concern about motor oil, antifreeze, etc. being washed into the wetland. Mr. Gospodarek said they do not plan to catch those type of contaminants when they design residential subdivisions. The state does not consider residential development as high impact. Oil separators are used on commercial properties because of their high volume of traffic. Commercial sites need to be able to clean up oils and chemicals on their pavement.

A site walk has been scheduled for January 21, 2017 immediately following the site walk off Sherburne Road which is scheduled for 8:00 a.m.

Windham Conservation Commission will present a proposal to rebuild the dam at Moeckel Pond and the road leading to the pond. Cooperation between Pelham and Windham is required because the road leading to the dam runs through Pelham.

Moeckel Pond has had a dam for 230 years. The pond has been enjoyed by both Pelham and Windham residents. The pond was private for many years. The name of the dam has changed officially to be the Marston/Finn conservation dam.

Collectively, over the past 6 years, the Friends of Moeckel Pond (Friends) and the Windham Conservation Commission (WCC) have been working on the project to rebuild the dam. The Moeckel's and the Linton's owned the pond historically. Ms. Linton passed away and the pond went into an estate. At that time, the dam needed repair. The state could not find anyone to be responsible for the needed repairs so the state ordered the boards in the dam to be pulled. Friends talked to the WCC and managers of the estate to make a 3 party agreement to rebuild the dam.

The people who owned the estate donated some parcels of property including lots around the dam to the Friends with the purpose of making the pond public. Friends started a non-profit to accept the land. The non-profit Friends of Moeckel Pond was formed in 2011. Friends then subdivided the land in order to sell the parcels. The WCC purchased the pond, a one acre island within the pond and a lot beside the dam. Friends maintains ownership of the dam until it is rebuilt. One parcel beside the dam was sold to the person who purchased the original Moeckel house which was built in the 1940's. The house lot was merged with the dam lot.

Deer Leap is a 54 acre conservation property with approximately 2,000 linear feet along the shore of Moeckel Pond. There are about 2 miles of trails marked within. The conservation area has high value for recreation and wildlife. Deer Leap allows passive recreational activities. No motorized vehicles are allowed on the property and hunting is not permitted. The regulations for Deer Leap are listed on the WCC town website. Moeckel Pond is 40 acres in size. The pond is shallow from about 2 feet to 10 feet deep. The pond is a significant environmental pond for migrating waterfowl. By-laws about Moeckel Pond have been passed by the WCC. No motors will be allowed on the pond.

The viewscape in the area has not changed over the years. This area has nice buffer zones. Only a few houses at a time can be seen because of the buffers between the houses and the pond.

Over the past 6 years, there has been a hydro study, research on endangered species, invasive species, mussels and spotted turtle habitat. Friends are willing to share the report on the spotted turtle habitat in the area. There is a vernal pool nearby in Pelham. Mr. Stanwick appreciated the attention given to looking into environmental impacts and to working to understand the consequences of the project including impacts to animal species in the area.

Friends have raised over \$400,000 to repair the dam. The cost for the repair will be over \$500,000. Funds have already been expended on provisional services such as engineering plans, subdivision, dividing the estate, and historic review. More historic review is needed. All the money for the dam repair must be available prior to the start of the project.

Friends is looking to apply for a grant from the Land and Water Conservation Fund which is managed in New Hampshire by the Department of Resources and Economic Development (DRED). WCC owns the pond, Friends owns the dam, and Pelham owns the road to access the pond and the dam. There is conservation land on both sides of the town line. This project could be a great joint project. DRED wants to make sure Bayleaf Road will be open to the public in perpetuity. DRED and the Land and Water Conservation Fund needs a commitment from Pelham that the road will always remain open to the public. Friends attorney is researching the road. Friends will share the information the attorney finds. Friends and WCC are going for a warrant article for the town to sponsor the grant.

Friends looked into moose plate grants, but their project did not qualify for that type of grant. Ms. Delehanty talked about LCHIP grants. She read part of a letter that described some of the projects that were funded this year. They have explored LCHIP, but have found this DRED grant is more in line with their project.

The proposed dam is all automatic. The dam is a labyrinth weir with a zig-zag design. The idea is to process water over the whole 75 foot span. The accordion shape can process a lot of water, but the water will flow out of the pond slowly. There are no boards in the dam; therefore, water flow cannot be increase by pulling a board. Water could be released in the future if a restoration project was necessary. Downstream residents would be notified if water flow needed to be increased. The dam is designed to allow water to flow over as nature intended. The dam will remain in the historic location near the end of Bayleaf Road in Pelham.

Bayleaf Road is paved at the apron of the road then the road becomes gravel. One house is sited on Bayleaf at the apron. A bridge is located at the end of Bayleaf. The bridge cannot be driven on but, can be walked across. Currently, the town plows up to the end of the blacktop; the rest of the road is not plowed. There is a proposed parking area for about 6 cars at the end of Bayleaf where it enters Windham near the dam. The contractors that work on the dam will leave the staging area open to be used as a parking area. Additionally, there is parking for 4 cars in Pelham about 100 feet from the access to Deer Leap and the dam area.

The purpose of this meeting is to get our support. In order to build the dam, Friends must get firm permanent access through Bayleaf. They would upgrade Bayleaf to a possible gravel road. The road is currently open to residents of Windham and Pelham. Pelham Conservation Commission (PCC) needs to go to the Selectmen to get their agreement that Bayleaf will be a permanently open road. Friends have the support of the WCC by recent vote, now Friends wants PCC support. Friends will pursue warrant articles in Windham which are needed in order to secure funding from DRED. Mr. Gagnon asked Friends members to let the Commission know when information becomes available from the Friends attorney. The Commission will make a request to be on the Selectmen's agenda to discuss the project. Agreement is needed between the town of Windham, the town of Pelham and Friends.

This project will have no initial cost for Pelham. The cost to upgrade the road will be part of the cost to upgrade the dam. The initial project is Windham/Friends cost. Pelham will need to maintain Bayleaf Road after construction.

Friends members requested a joint meeting between Planning and the Selectmen or to have Planning in the audience at the Selectmen's meeting. Mr. Gagnon said the Selectmen and Planning deal with different aspects of this project. The Selectmen will be interested in the road, canoe launch and parking while the Planning Board would be interested in details about the dam and the flood study.

Copies of several documents were left with the Commission.

Motion: (Stanwick/Delehanty) to support the Friends of Moeckel Pond and the Windham Conservation Commission in their efforts to complete the project described, including the installation of a canoe launch at Moeckel Pond.

WALK IN ITEMS:

A Planning Board public hearing will be held regarding a state permit for Tennessee Gas Company for a compressor turbine and an emergency generator to be located at the compressor station on Mammoth Road. The hearing will be held Wednesday, January 18, 2017, at 6:00 p.m.

The Wildlife Action Plan will be added to the MapGeo feature managed by Nashua Regional Planning Commission. MapGeo is an online mapping tool that can be used by the public to learn about resources and projects in our area. The total cost for the addition is \$500. Pelham will join with 6 towns in our region to spread the cost of the addition. The cost to Pelham will be about \$85.

Ms. Delehanty spoke about a project by the Tennessee Gas Pipeline that took a 400 year old woodland, in the Otis State Forest, by eminent domain, in Massachusetts. The company agreed to a settlement with the state to fund other land acquisition projects and recreational upgrades to existing lands along with \$300,000 for environmental protections. There are still issues related to water quality so the pipeline expansion agreement is not yet complete.

Ms. Delehanty handed out a list of new proposed bills in New Hampshire that apply to conservation.

Ms. Delehanty has concerns about stone walls and their preservation. The walls are often dismantled during subdivision development. Stones on old walls are not always used to rebuild stone walls on the properties. The walls can be broken through to make trails.

Pelham Elementary School has outdoor classrooms on the school property. Local businesses, boy scouts, and town departments have contributed to the creation of these classrooms.

A letter was sent to the Commission from the Department of Transportation describing a project at the corner of Old Gage Hill Road and Route 38. The Department has requested input from the town on environmental issues related to the project.

ADJOURNMENT:

Motion: (Mackay/Law) to adjourn

Vote: 5-0-0 in favor.

Adjourned 9:13 p.m.

Respectfully submitted,
Karen Mackay,
Recording Secretary