

**DURHAM CONSERVATION COMMISSION MEETING
MONDAY, DECEMBER 28, 2020 – 7:00 PM
DURHAM TOWN HALL - COUNCIL CHAMBERS - DURHAM, NH**

Note: Due to the Coronavirus pandemic, most members and presenters attended via Zoom video conferencing while a limited number were in Council Chambers.

Members Present: Chair Sally Needell; James Bubar; Coleen Fuerst; Vice-Chair Mary Ann Krebs; Jake Kritzer; John Nachilly; Walter Rous and Alternate Roanne Robbins.

Also Present: Town Planner Michael Behrendt; Contract Planner Rick Taintor, Minute Taker Lucie Bryar

I & II. Call to Order and Reading of Covid Emergency Preamble

Chair Sally Needell called the meeting to order at 7:00 p.m. and read a required statement pursuant to the Governor's Emergency Order #12 pertaining to meeting remotely during the Covid-19 pandemic and outlining how the public can continue to participate. More information is available on the town of Durham website.

Chair Needell then conducted roll call and seated alternate Roanne Robbins as a voting member, filling in for Coleen Fuerst who had not yet arrived.

III. Approval of Agenda

Mr. Kritzer MOVED to approve the agenda as submitted; SECONDED by Mr. Nachilly, Approved 7-0, Motion carries.

IV. Public Comments: Chair Needell invited public comments for any items not on this evening's agenda and there were none.

V. Take Action for Wildlife:

Chair Needell briefly reported the Take Action for Wildlife group has chosen a project focused on determining wildlife corridors in Durham. They hope to identify wildlife connectivity using research on road kill; collecting existing maps and researching trail cameras, among other tools. She invited any members of the Commission with expertise in these areas to let her know.

VI. Mill Pond Dam Feasibility Study. Presentation of the study by Peter Walker and Quinn Stuart of VHB, the Town's consultant. [Ms. Stuart was not present this evening.]

Town Engineer April Talon came forward and said the Dam Feasibility Study is now complete and the town is looking for input from the Conservation Commission. Town Council has scheduled a public hearing for January 11, 2021. All relevant documents are available on the Town of Durham website by selecting: *Inside Town Hall, Public Works, Engineering Division*. A select number of hard copies are also available from her office.

Mr. Rous said he read the entire report and wants to know what would happen to all the sediments currently held within Mill Pond if the dam is removed.

Ms. Talon said under the dam stabilization option, some areas would be dredged to remove sediment, which could potentially establish open water over time. In the case of dam removal, sediment would be managed during construction and an open active channel would be created to pull back some of that sediment. Engineers do not expect it to be detrimental or harmful.

Mr. Walker added that a goal is to retain sediment, prior to discharging stormwater to a natural stream or water body. He noted UNH limnologist Dr. Wil Wollheim and his graduate students looked at water quality and concluded removing the dam would benefit water quality.

Mr. Walker then briefly recapped the project and the report, which is 160-pages. There is also an executive summary and one-page matrix available.

Two options have been identified:

- Option #3 - Dam Stabilization, which would involve pumping concrete into the hollows of the dam. He said this does not fully meet DES safety rules and would require written agreement from abutting landowners.
- Option #5 - Dam removal would involve removing the main spillway and fish ladder and restoring a channel about 42-feet wide, which would extend about 650 feet upstream.

He showed a number of slides to illustrate the expected environmental impact of each option.

With dam stabilization, things would remain status quo. With dam removal, Mill Pond would change from shallow open water to a marsh habitat; Hamel Brook, also impounded, would be affected as well.

Mr. Walker said the study looked at dredging to restore the depth of the pond but this has an estimated cost of \$3M and would require a permit which would be “extremely difficult, maybe impossible” to obtain.

Commissioners asked a number of questions and made comments, including:

- How long would invasive species removal be necessary? Will more natural and self-sustaining plants take over eventually? [Mr. Rous]
Mr. Walker said consultants are working closely with Land Stewardship Coordinator Ellen Snyder and said it would take at least a few years for native species to take over.
- If the dam is removed and buffers expand, Mr. Bubar wanted to know who then owns that land and what prevents development there?
Mr. Walker said in his experience, the land is almost always owned by the abutting property owners, regardless of how their deeds are written. NH’s Attorney General has ruled this way in similar cases. He added the land would still be a wetland and would be unbuildable.

- Mr. Kritzer asked if the adjacent land might be suitable for a park or some type of recreation and Mr. Walker said that seems unlikely. He believes it will be emergent marshland and there could be an opportunity for boardwalks or a scenic overlook.

Ms. Talon said aside from the environmental aspects, the dam is failing infrastructure that needs to be addressed. The town has received multiple letters of dam deficiency from the dam bureau and deterioration continues on a weekly basis.

Based on earlier points made by Mr. Walker and the report, Mr. Kritzer said it's clear the removal of the dam would be the best environmental choice. Mr. Rous said he's inclined to agree, but would like to hear public comment.

Mr. Nachilly said the Commission's purview is environmental only, while the public often focuses on aesthetics. After looking at the report, he said dam removal would not cause any loss of wetlands; water quality would improve and the habitat would be better for fish. He does not see any negative environmental impact.

Ms. Fuerst disagreed and said removal of the dam changes the character of what is there now and causes disruption to some species. She would have preferred to see the dam reclassified to a "nuisance" rather than a "hazard" by the State. She advocates hearing from abutters before the Commission makes a recommendation.

Mr. Bubar said Town Council's public hearing should be sufficient to allow for public comment. He added removing the dam makes the most sense, environmentally and economically.

There was discussion about a similar project in Exeter. Mr. Walker said dam removal there was successful, with no known adverse affects. Commissioners discussed public input received thusfar, uncertainty about how the area will look if the dam is removed, the effects on anadromous fish and the role Mill Pond plays in releasing nitrogen.

Mr. Walker said the Feasibility Study included a model that determined removal of the dam would not affect nitrogen levels upstream. Later he said removing the fish ladder is expected to have a negligible impact on the fish and all fishery agencies are unanimous in support of dam removals.

Ms. Fuerst asked if there could be time for further study and more meetings to discuss the project. She would like to learn more about the potential effects on the anadromous fish there.

Mr. Kritzer said repair or removal of the dam has been discussed for years and the Commission has had several presentations and now has a complete 160-page report. He does not agree with delaying action.

With no further discussion at this time, **Mr. Kritzer MOVED that the Conservation Commission recommend that Town Council move forward with Alternative #5 for removal of Mill Pond Dam as this alternative will bring about the widest range of environmental benefits, SECONDED by Mr. Bubar, APPROVED, 7-0-1, with Ms. Fuerst abstaining, Motion carries.**

Mr. Kritzer will draft a statement with more details about the reasons behind the recommendation for consideration by Commissioners at a special meeting on January 4, 2021.

VII. 5 Glassford Lane – Bank Stabilization Plan. Permitted Use B application to stabilize shore of Pettee Brook with boulder revetment for existing single family house. Paul and Lucinda Rasmussen, property owners. Mike Sievert, MJS Engineering, engineer. Map 4, Lot 38-5.

Mr. Rasmussen addressed the Commission and said a section of Pettee Brook used to have large boulders to firm up the embankment -- but boulders washed out, causing a sudden increase of the brook toward the foundation of his house. This application is to restore the original stone revetment and re-establish some lost soil.

Mr. Sievert then came forward to show diagrams and said they will seek to tie into the bank where it's stable and utilize as many existing rocks and boulders as possible. The proposal calls for installing drip-strips for runoff coming off the roofs and the installation of gutters.

He said there is no alternative access to get the work done. He described the proposed work, which includes use of a small excavator with protective measures including sandbags and matting. Plantings will be added using a New England "erosion and wetland conservation mix."

Chair Needell said aside from Permitted Use B for work in a WCOD, there is a small wetlands permit required from DES. She or Mr. Behrendt will work with the applicant to finalize that permit.

She then reviewed the three criteria for a Permitted Use B in a WCOD and Commissioners agreed all requirements are being met.

Mr. Rous MOVED to approve the work at 5 Glassford Lane as described; SECONDED by Ms. Fuerst, APPROVED unanimously, 8-0, Motion carries.

VIII. Portsmouth Water Line Replacement. Opportunity to offer comments to NHDES on wetland application from the city of Portsmouth to replace the existing water mains across Little Bay to Newington with a new 3,200 foot-long 24" main. The crossing commences at Durham Map 12, Lot 5-2. Britt Eckstrom, Project Engineer with Wright-Pierce.

Britt Eckstrom came forward and introduced other officials present this evening: Al Pratt (City of Portsmouth Water Supply Operations Manager); Zach Cronin (Assistant City Engineer for Portsmouth) and Darrin Lary (Project Manager for Wright-Pierce).

The project was first presented to the Commission about one year ago. Tonight, engineers are looking to receive any comments/answer questions on the completed application. The project area impacts some land in Durham as well as Newington. A Dredge and Fill Application has been filed with NHDES.

Brief Project Recap

The City of Portsmouth owns and maintains a 24-inch reinforced concrete drinking water transmission main that carries approximately 60% of water to a regional system serving

Portsmouth, Newington, Greenland, New Castle, and portions of Madbury, Dover, Durham and Rye.

Recent evaluations of the 1950s-era pipeline have shown some exposed portions and significant pitting. In some areas, 50 percent of the wall thickness has been lost. The pipe needs to be replaced in order to continue to provide reliable water service.

The City of Portsmouth seeks to install a new 24-inch high-density polyethylene (HDPE) water main on the ocean floor. A new pipeline will be assembled on land and then floated into Little Bay. At the intertidal zone and within portions of the tidal buffer zone, the pipeline will be buried to protect it from freezing, anchor drag and currents. Excavation within the tidal buffer zone will be necessary to connect the new main to the existing mains on both shores.

The Durham impact area is near Route 4, where the existing pipeline has a 40-foot easement, but no roadway access. The City has identified an access route that would utilize existing driveways on two private properties.

In the tidal marsh area, engineers are proposing to remove the marsh vegetation in blocks, store it and then place it back afterwards so the marsh can be restored. There will be 2,395 square feet of permanent impacts to Little Bay in Durham, where pipes will be submerged with anchors.

The proposed construction will be done in accordance with Best Management Practices, including the use of timber mats, silt fences, sedimentation curtains and inspection and monitoring throughout construction. Construction is anticipated to begin in September 2021 and conclude by May 2022.

Commissioners asked a number of questions:

- Will there be any disruption to Oyster Farms or boat traffic on the Oyster River? [Mr. Bubar] Ms. Eckstrom said there will be temporary disruption when the pipeline is floated out. They are coordinating work with one oyster farmer whose farm may be impacted.
- Who monitors the project? Will the town of Durham have access to those reports? [Mr. Rous] Ms. Ekstrom said monitoring will be done in accordance with permit conditions. It's possible the City of Portsmouth will be able to share reports with Durham officials.
- Where will blocks of salt marsh be stored and will they dry out? [Mr. Rous] Ms. Eckstrom said they'll be stored at a temporary construction area in Durham and the grasses may need to be watered to keep them viable.
- Has temporary removal and replacement of marsh grass blocks been successful? [Chair Needell] Ms. Eckstrom replied they are planning to use practices utilized successfully during the Seacoast Reliability Project. If the marsh blocks don't survive, the area will need to be restored by other means.

Mr. Rous said due to the permanent impact to nearly 2,400 square feet of wetland, the town of Durham will receive a contribution of \$24,000 to the Aquatic Resource Mitigation Fund,

administered by NHDES. He said the Conservation Commission should consider if there are projects that might qualify for those funds.

After brief discussion, Commissioners agreed to submit a comment saying the project is a necessary one and has been well thought out. They are confident that any impact to the shoreland will be mitigated and the area will be restored. Mr. Behrendt will work with Ms. Eckstrom to submit a formal comment to NHDES.

IX. Subdivision off Gerrish Drive. Parcel at 91 Bagdad Road. Conditional use application to cross/fill three wetlands for conservation subdivision for 15 dwelling units (7 single family and 4 duplexes plus one existing house) on 16-acre lot off Gerrish Drive. Marti and Michael Mulhern, property owners. Mike Sievert, engineer. Robbi Woodburn, Landscape Architect. Mark West, Wetland Scientist. Map 10, Lot 8-6. Residence B District.

Mr. Sievert said since his last presentation to the Commission, he has refined the design so the road is now a loop. The road is as narrow as possible – since it's now a fully private road, not a town road. This change should reduce impacts to the wetlands, in his view.

Mr. Sievert said a total of 9,200 square feet of wetland buffer would be impacted by the proposed project. He showed a Planting Mitigation Plan and said the buffer along the access road (where the Mulherns live) would be fully re-planted.

Wetland Scientist Mark West then came forward to explain the Wetlands Functions and Values Report, which is available on the town website [See *Wetland Assessment Report by West Environmental* under Conservation Commission/Current Projects.] Using new state guidelines, Mr. West assessed the functionality of four wetlands on the site and prioritized those functions, briefly:

Wetland #1 – Currently has some of its functions compromised, since there are houses on either side, a road and runoff. Its principal functions are shoreland stabilization and sediment trapping.

Wetland #2 – Is a relatively undeveloped part of a larger stream complex with a 400-acre watershed extending into Madbury. This wetland has six principal functions: ecological integrity, fish and shellfish habitat, flood storage, groundwater discharge, shoreline anchoring and wildlife habitat;

Wetland 3A & 3B – A four-acre wetland and the highest functioning wetland on the property with seven principal functions: ecological integrity, groundwater discharge, nutrient trapping/retention and transformation, sediment trapping, shoreline anchoring and wildlife habitat.

Wetland 4 – Is near a hemlock woodland and has ecological integrity because it's undisturbed right now.

Mr. West noted there was quite a bit of impact to the wetlands when Gerrish Drive and Ambler Way were built in the 1970s. Engineers and wetland scientists did a site walk with NHDES

inspectors recently and the current proposal is “under the [10,000] square footage required [by the State] for mitigation.”

Commissioners raised a number of questions including the impact of building a roadway in Wetland #1 (how would that affect its sediment trapping function (and water quality) for Wetland #2; Specific plantings near the proposed roadway; how a retaining wall will function in terms of potential flooding to adjacent properties.

Mr. Bubar said information on the wetlands is good, but he is struck that nothing was mentioned about the potential impact to the wetland buffers.

Mr. West replied that information on impacts to buffers will be provided in the NHDES report and can be shared with the Commission. He said there is “no question there is an impact to buffers on this project. The ecological integrity of a wetland is impacted when you start developing in the buffer.”

Commissioners raised a number of other concerns/questions:

- Details seem to be lacking on the proposed Right-of-Way [Chair Needell]
- Mr. Bubar said the discussion thus far is missing consideration of conditional use (for houses, a road and driveways) within the Wetlands Conservation Overlay District.
- Mr. Kritzer said his primary concern is the proposed culvert at the intersection of wetlands 3A and 3B, which in his view may impede wildlife migration. It appears the only migration route will be walled off by the subdivision. He questions why a bridge cannot be built there instead of a culvert.

Mr. West responded to Mr. Kritzer’s question about wildlife migration and said any structure (whether a culvert or bridge) would impact wildlife movement, but he believes the more important area for migration would be along the northern/Madbury line.

Mr. Sievert said a timber bridge would cost over a quarter of a million dollars, which is 5 to 10 times more than a culvert. The arch pipe is 6 to 7-feet high, which would accommodate most wildlife.

Mr. Rous asked for clarification on an email distributed by Mr. Behrendt from the Town Attorney. He said it appeared she was reversing her decision on alternative access to the subdivision from Bagdad Road. Is this correct?

Mr. Behrendt said she did not reverse her decision, but gave further clarification. Essentially she said two other easements along Bagdad and Route 108 could be used for access. But she noted that various owners along there would object if it went to court and it’s unclear how a judge would rule. She stated the Planning Board and Conservation Commission must review the application as submitted, with access from Gerrish Drive.

Public Comments

The public was invited to come forward with comments, briefly summarized here:

Andrew Merton, 11 Gerrish Drive – Said the Commission needs to examine if the four standards for conditional use within a WCOD have been met. He believes at least 3 out of 4 are not being met. Criteria #4, for example, states that restoration will leave a site as nearly as possible in its existing condition. He said, “You can’t leave something near its existing condition if you destroy it.”

John Carroll, 54 Canney Road --- He has previously urged town officials to hire an independent wetland scientist and will continue to advocate for this. An independent review should assess the wetland ecology and downstream hydrological impacts. As proposed, the project leads to a loss of wetlands, excess stormwater runoff and ultimately contamination of Great Bay.

Michael White (an abutter to the project) – Asked for clarification on plantings on his property and the height of the proposed retaining walls. Landscape Architect Robbi Woodburn came forward to answer his question and share some specifics from the landscaping plan.

Kim Sweetman: Said in terms of access to the proposed subdivision, other alternatives may have less impact to the environment. She agreed with Mr. Carroll’s request for an independent scientist to evaluate the proposal, particularly as it pertains to the Right-of-Way.

Alexandria Turcotte: Asked why the engineer/developer chose to design a road through the wetland instead of around it. She also asked about a wetland discussed by Mr. West as being “pristine,” and said in her view, the design is being dictated by style rather than a concern for the environment.

Mr. Sievert said the neighborhood is designed to have green space in the center, necessitating roadways on the outside. Mr. West said he did not use the word “pristine,” but rather ranked one of the wetlands high for ecological integrity because it is in an undisturbed area.

Ms. Turcotte said the proposal will alter that wetlands from undisturbed to “drastically disturbed,” and Mr. West concurred, but added that particular wetland doesn’t provide all the functions the other wetlands do.

John Lewis: Addressed the Right-of-Way portion of the proposal since it would impact his property. He said he’s been dealing with water flow since 1982 and noted It’s dependent on the season and rainfall. He manages flooding with a ditch built on his property. One of the criteria for permitted use says the work “will have no impact on adjacent properties.” The engineer’s response that “I don’t expect [increased flooding] to happen” is inadequate, in his view.

Mr. Sievert replied the drainage report shows no increase in water flow across the Lewis property. The report analyzes storm events ranging from 2-year to 100-year floods. Mr. Lewis responded that the drainage report is not consistent with what he and his neighbors have experienced over the last 20 years.

Mr. Lewis also questioned the Mulherns’ legal right to use Bagdad Road and said it now appears they do have access, where earlier it was believed they had sold their access. He believes their hardship is self-imposed and stated he’s not opposed to litigation to resolve it.

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Gail Kelly: She has explored the entire site extensively on foot and urged Commissioners to do the same, including the wooded road. She said, “To make Gerrish wetland the access for a conservation subdivision makes a mockery of the word “conservation.” She said there’s a need for an independent hydrological and water quality study not based on observation alone. She agrees with Mr. Lewis that the Mulherns have an alternative right-of-way from Bagdad Road.

Alexandria Turcotte: Was given permission to read a prepared statement which emphasized her use of the roadway for running, walking and biking and said a lengthy construction project would be disruptive. She has seen countless wildlife and fears their habitat will be lost. She urged Commissioners to do a full site walk and consider access from Bagdad Road.

Christine Conlon: Said she concurs with all of her neighbors’ comments and echoed that an independent study would be beneficial.

This concluded the public comment period of the meeting.

Responding to some of the comments, Vice-Chair Mary Ann Krebs said the Commission did a site walk in the spring, though it was clarified they did not walk out to Bagdad Road at the time.

There was discussion about the primary focus and parameters for the Commission’s special meeting on January 4th. It was agreed the meeting will focus on the Mill Plaza application and public comment will be allowed. The Commission expects to continue discussion on the Gerrish Drive application at its regular meeting on January 25, 2021.

With no further business, Mr. Rous MOVED to adjourn the meeting at 11:04 p.m.; SECONDED by Ms. Krebs, APPROVED, 8-0, Motion carries.

Respectfully submitted,
Lucie Bryar, Minute Taker
Durham Conservation Commission

Note: These written minutes are intended as a general summary of the meeting. For more complete information, please refer to the DCAT22 On Demand videotape of the entire proceedings on the town of Durham website.