

**MINUTES
CONSERVATION COMMISSION

1 JUNKINS AVENUE
PORTSMOUTH, NEW HAMPSHIRE
CONFERENCE ROOM "A"**

3:30 p.m.

December 11, 2019

MEMBERS PRESENT: Chairman Steve Miller; Vice Chairman MaryAnn Blanchard; Members; Adrienne Harrison, Allison Tanner, Barbara McMillan, Samantha Collins, and Alternate, Jessica Blasko

MEMBERS ABSENT:

ALSO PRESENT: Peter Britz, Environmental Planner/Sustainability Coordinator

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I. APPROVAL OF MINUTES

A. November 13, 2019

Chairman Miller clarified that his comment on page 3 should include that the NHDOT Route 1 project included other goals such as safety, traffic flow and aesthetics.

Ms. Tanner commented that there was a redundant unanimous on page 1.

Vice Chairman Blanchard moved to approve the November 13, 2019 Conservation Commission Minutes as amended, seconded by Ms. Tanner. The motion passed by a 6-1-0 vote. Ms. Blasko abstained.

II. CONDITIONAL USE APPLICATIONS

1. 0 Banfield Road
Maud Hett Revocable Trust, Owner
Assessor Map 256, Lot 2
(This item was recommended to be postponed to the Planning Board at the November 13, 2019 Meeting.)

Corey Colwell and Jack McTigue from TF Moran, Jim Gove from Gove environmental services, and Gary Spaulding from Spaulding Design Consultants spoke to the application. Mr. Colwell noted that the application was last before the Commission on October 9, 2019. The proposal is for 22 single family units on 45 acres. There are wetlands on the property. The proposed homes will be accessed by a 25-foot-wide road. All homes, septic systems, and leach fields will be outside the buffer. The Commission voiced several concerns at the last meeting. The first concern was to look at shifting the road to the east to see if it avoided some buffer impacts. The original road design had 4,013 s.f. of wetland impact and 9,530 s.f. of buffer impact. This plan

shifted the road 56 feet to the east. The buffer impact total is 7,270 s.f. It is reduced by 2,200 s.f. The wetland impact increased slightly. The width of the road was reduced to 20 feet wide. The changes to the road significantly reduce the buffer and wetland impact. The cul-de-sac was reduced from a 90 foot to a 60 foot radius. The road width and cul-de-sac changes reduced the impervious surface by 16,500 s.f. The Commission's second concern was the amount of trees being cut in the buffer. They have staked out the buffer in the field and provided an inventory of the trees that would be cut. The old alignment would have had 91 trees cut in the buffer. The revisions reduced the tree count to 36 trees. The third concern was overall general buffer impact. There were many comments about various features in the buffer. A lot of buffer impact associated with project has been reduced in the new plan. The gravel wetlands have been eliminated. The new plan proposes an underground detention tank and treatment within the proposed road itself. They are also proposing new retaining walls where the road crosses from wetland to upland. The changes to the new plan reduced total buffer impact by 11,177 s.f. The fourth concern was lack of wetland crossing alternatives. The first plan just had the wildlife eco-passages. This plan showed a profile of the eco-passages. They range in depth from 1 to 1.3 feet in height. 1.3 feet would be the tallest any of the eco-passages would be. There will be three in total. Each passage is 5 feet in width and the walls also hold soil in place. The plan showed an alternate bridge option. It doesn't work because of the depth of the road. They have to go down from Banfield Rd. at a 2% grade. There is not a lot of space left for crossing because the bridge would have to sit right on the ground, or they would have to excavate in the wetland. The third option is a box culvert. It would have to be constructed in the ground because of the grade. The eco-passages would have a natural ground bottom and would be designed for smaller animals. The larger animals would cross on the road. There was also concern about the perceived lack of trees to remain outside the buffer around the homes. A landscape plan was prepared and they added a significant amount of shrubs and trees lining the roadway and each home. Trees will be cut outside the buffer, but a lot will go back in the place.

Mr. Spaulding noted that there were concerns about the number of septic systems and their impact on the site. There will be 14 septic systems for the 22 homes. Mr. Spaulding used the site information and soils and input them into the State's density calculator. According to that information 79 homes would be allowed on the site. The primary septic tank is a sealed watertight tank with an inlet and outlet. In the tank it would be an anaerobic atmosphere. Then it goes into the leach field, which is an aerobic system. The goal is to keep the leach field close to surface in the oxygen enriched zone. The proposed leach field would be a geo-mat system. A shallow system gets better treatment and will allow for evaporation. The treatment happens through vertical movement in the soil. The septic sand will remove 99% of effluent. The Commission had concerns about setbacks and impact to the wetland. The edge of the leach field has to be 50 feet back from the wetland or poorly drained soil. All leach fields are 3-4 times that setback distance. The closest location is 107 feet. Based on soils, setbacks, and system there should not be any wetland or wildlife impact.

Vice Chairman Blanchard noted that there is a lot of bedrock on the site and questioned if fill would be needed to create appropriate leach fields. Mr. Spaulding responded that they cannot remove ledge or blast to build a leach field. It would not be approved by the State. There has to be at least 24 inches of soil above ledge or the seasonal high-water table. The only fill material would be anything needed for grading around the house. Chairman Miller questioned if the

amount of fill around the houses had been quantified. Mr. Spaulding responded that it would be fill up around the foundation. They will be flat yards, but it has not been quantified. Chairman Miller questioned if that would be covered in TAC. Mr. Britz responded that they would want to know treatment and fill amounts.

Chairman Miller commented that conceptually it sounded good. However, sometimes the concept is not what happens on the ground. Mr. Spaulding responded that each of the 14 septic systems will have an individual permit from the State showing the required fill corresponding to them. Once they are installed the State has to inspect before they can back fill. The septic systems will be designed to handle 450 gallons a day. That is the peak. The normal load for a 3-bedroom home is 225 gallons a day.

Chairman Miller requested clarification on the steps between this concept and this plan. Mr. Spaulding responded that each septic would have its own site plan that would include materials, setbacks, grading, and fill. That will be submitted to that State and they can comment or approve it. Then it is stamped and sent to the City Building Department. The State reviewer and contractor will have a copy. There will be a number of checks and balances. Mr. Colwell added that prior to the septic going to the State these plans require a State Subdivision Approval. They will look at test pits and make sure natural soil exists to house the septic. Mr. Spaulding noted that they have met with the NH Subsurface Bureau and went over the plans to see if there were concerns with the proposal. They did not have issues.

Ms. Blasko commented that the plans showed unfinished space in the 3-bedroom homes. Ms. Blasko questioned if the systems would be able to handle more bedrooms if they were added to a home. Mr. Spaulding responded that they would need a permit to add more bedrooms, so that would be covered in that process. The systems will be able to handle it, but if they added without a permit it would be an illegal bedroom. It would still be under the design capacity.

Vice Chairman Blanchard commented that the site would need to manage roughly 5,000 gallons a day. Mr. Spaulding confirmed that was correct. The State calculator says they can load the site with 35,360 gallons a day. It is considerably under what is allowed by State and science standards.

Ms. McMillan questioned if they had done test pits. Mr. Spaulding confirmed that they had done test pits and ledge probes for all of the leach fields. Ms. McMillan clarified that they won't have to bring in additional soil other than for grading the houses. Mr. Spaulding confirmed that they will not have a mounded system. Ms. McMillan questioned if they would need to go through more approvals if more fill was needed. Mr. Spaulding responded that before it goes to the State that has to all be worked out. They did two test pits per leach field and Mr. Spaulding was confident they can do it. They will need 6 inches of septic sand. That will be an addition, but not above the grading plan. They spent a lot of time on the house placement and grading to show everything worked. State approval is required and they do an inspection. Any approvals or denials go from the State to the Building Department.

Chairman Miller requested clarification on vertical vs. horizontal treatment. Mr. Spaulding responded that all treatment happens vertically. It needs soil and oxygen. Vertical is how to get

the treatment. Horizontal treatment carries the water away after it is treated. Chairman Miller questioned if there would be nutrient flow horizontal into wetland. Mr. Spaulding responded there will be vertical treatment before it goes horizontal. Each leach field is well beyond the State required setback. Mr. Spaulding commented that he has never seen a septic impact downgrading to wetland and wildlife. A system failure is a whole different discussion. The plans will have a maintenance requirement.

Vice Chairman Blanchard questioned if the septic systems would be controlled by the condo association or individual residences. Mr. Spaulding responded that each home would have its own septic. The leach fields would be shared between 1-3 homes. The condo association will maintain the leach fields. It will ensure better and more consistent maintenance.

Ms. Collins questioned if they sought relief from Portsmouth to waive the 2% grade requirement. Mr. McTigue responded that they did ask, and they were told to use the 2% grade.

Ms. Collins noted that the eco-passage research that was referenced says that they should be at least 2 foot high. These are 1.3 feet high. Mr. McTigue responded that they had 2 feet in the previous plan. Mr. Colwell added that they were faced with a lot of restrictions and were trying to balance what is best for the site. Moving the road reduces buffer and wetland impact but sacrifices the 2-foot-high eco-passages. Small mammals should still use it. Mr. Gove agreed that it was a balancing act. They did widen the three eco-passages so that they would have a broader expanse. The retaining wall will force smaller species to use them instead of trying to cross the road. Ms. Collins noted that the top of them were open grates and questioned if they would be treating the road with snow removal. Mr. Colwell responded that most roads are treated. The balance would be a low salt sign or no salt sign. That part of the condo docs have not been developed but they would not be adverse to reducing salt. Salt and sand in the wetland would have a negative impact. The snow will fall through the grate. Mr. Gove noted that any road adjacent to wetlands that is plowed can have contaminants going into the wetlands. Ms. Collins commented that currently there was no road.

Ms. Harrison concerned that the eco-passage would fill with sand or debris over time. It would need to be maintained. Mr. Colwell agreed.

Chairman Miller questioned if there would be any guardrails on the road. Mr. Colwell responded there would not be any guardrails. Chairman Miller was concerned that the changes to the site may direct wildlife to Banfield Rd. and wanted to ensure they were trying to prevent that. Mr. Colwell responded that there were three primary paths of travel for the wildlife today. They should continue to stay in those corridors.

Chairman Miller noted that they were creating a barrier where they were connecting the two wetlands with roadway. The stormwater treatment under the road was good. Mr. McTigue commented that there would be a 4 by 4 culvert closer to the houses. It would not be in the center because of the underground storm water treatment.

Ms. McMillan noted that the box culvert was not in the current plans. Mr. McTigue confirmed it was after the plans were submitted and showed it in the road profile.

Ms. Tanner requested an overview on the topography of the site. Mr. Colwell responded that Banfield Rd. was at elevation 28. The wetland was at elevation 26. The high point of the wetlands was 52 and then it dropped back down to elevation 46 between the two uplands. The second buildable area high point was elevation 60. Ms. Tanner noted that site seemed to have a lot of slopes at the site walk and questioned if it would need to be leveled to build the houses. Mr. Colwell responded that the houses are placed around the slopes. Most of the steepness is at road.

Ms. Tanner questioned what size mature trees would be planted. Mr. Colwell responded that they would be 8 to 16 feet in height.

Ms. McMillan expressed concern for wildlife getting across and questioned if the whole road would have a wall. Mr. Colwell responded that the wall at the first area was only 2 feet in height. The wall for the road between the uplands would range between 2- 9.5 feet. Ms. McMillan questioned if there was any way to accommodate wildlife on either end with no screening. Mr. Colwell responded that 50 feet out of 1,400 feet would be blocked. It should not be an issue. Chairman Miller agreed with Ms. McMillan and suggested including some sort of screening in the landscaping plans that would allow animals to cross close to the homes without being exposed.

Ms. Tanner questioned why they needed a 9-foot wall. Mr. McTigue responded that they put the storm water treatment system under the roadway. The original plan had gravel wetlands and the road was 5-10 feet lower. Mr. Colwell added that they put the treatment under the road in order to avoid buffering in the buffer with gravel wetlands.

Ms. Collins questioned if there was any other place they could put in a detention system. Mr. McTigue responded that was the low point where runoff naturally flows to.

Ms. McMillan noted that the open grates on the eco-passage could potentially function as catch basins for road runoff. Mr. McTigue responded that the water will be pushed to the sides of the road. There will be some tree wells to catch some storm water. They will not catch it all, but they will catch as much as possible. Mr. Colwell added that they could get more treatment with the gravel wetlands, but there would be more impact with that plan. This is an acceptable alternative.

Chairman Miller liked that they removed the gravel wetlands. This plan is better for habitat preservation. Storm water is better off with a natural buffer rather than putting in storm water treatment in the buffer. Efficiencies are higher with treatment, but habitat is not accounted for.

Ms. Collins questioned if the road would be lit. Mr. Colwell responded that they typically have streetlights.

Mark West from West Environmental provided his report. Mr. West completed an initial report, but needed some clarifications and additional information on the wildlife habitat study. Mr. West did not get all of the information before the meeting but had been listening to the

presentation. Mr. West agreed with the functional evaluation. There may be some function of wetland B for sediment toxification. That may be a future potential function if the development goes in. The applicants have studied the wildlife crossings very thoroughly. The eco-passages make sense in the locations that they are in. Wildlife should go up on Banfield Rd. The eco-passages are less than 2 feet. That is a balance between the reduction in buffer impact vs. functionality of movement. They could follow up with Fish and Game to get input on the passages. They are not common and a little experimental. The wing walls to direct them will be good. Mr. West was not sure less than 2 feet passages would have an impact for movement. Turtles especially can be unpredictable. There is less impact for the roadway but the 9 foot wall is a little unusual. They could have spread out smaller detention areas. That is a pretty significant wall. Saving a tree is better than planting new ones. It may not be possible, but it is worth looking at what can be saved. Mr. West questioned if there would be a lot of blasting for the roadway. There is a fair amount of variety in the wetlands and it is a big wetland system. It is worth going through the process to minimize impact if possible.

Ms. Harrison noted that the tree wells were not on the plan. Mr. Colwell responded that they were discussed after the plans were submitted. The tree wells would be on both side of the road to get more storm water treatment. The storm water treatment is upslope from that part of the road. The tree wells would be additional treatment.

Chairman Miller questioned if the eco-passages would be adequate for water flow. Mr. Colwell confirmed that they would.

Mr. Britz spoke to the Staff Memo. Mr. Britz evaluated the criteria for approval based on the information in the plan. The plan does not minimize impacts. The eco-passages are not sufficient. This plan would have a big impact on wildlife. They did a good job of reducing the alteration of terrain and natural vegetation from the last plan, but it is still a substantial development. They should look at the site more holistically, leave storm water treatment areas, and save trees. This seems like maximum impact to the site. Traditional houses would need 1 acre lots, but these are condos. There could have been more effort in reducing the numbers of homes. A 9-foot wall is a big barrier. The plan is not trying to enhance anything in the natural buffer. Invasive plants were not addressed. This application has been here a number of times. It is still intense and concerns have not been addressed appropriately. Mr. Britz did not think it was ready to be approved.

Ms. McMillan commented that there were a number of things missing from the plans that were in the presentation and questioned if they should postpone. Mr. Britz responded that he would recommend denial.

Chairman Miller commented that if they postpone then they need to be able to offer clear direction on where to go. There was a good discussion about the tradeoffs which won't necessarily go away unless there is some innovation on site design. The high wall is concerning because it will be directing wildlife. Mr. McTigue responded that the high retaining wall would only be a 50-foot section of the road. There is plenty of room on either side. They will only be cutting what trees are necessary and trying to save what they can. It still has to work with grading, but they are conscientious builders.

Ms. Tanner moved to recommend denial to the Planning Board, seconded by Vice Chairman Blanchard.

Ms. Tanner noted that this was not the least impactful design. It needs to have fewer houses. The road is going through a major wildlife corridor and bisecting a wetland. The land is identified by the NH Wildlife Action Plan. They still need an independent review of the septic. The plans look like they will be clear cutting.

Vice Chairman Blanchard commented that this project does not protect or improve wildlife habitat it does damage. The plan does not quantify the terrain alterations to do the project. Vice Chairman Blanchard supported the Staff Memos findings.

Ms. McMillan supported the motion and the Staff Memo. Ms. McMillan was concerned about the low grates getting clogged. A bridge alternative would be better if it was possible. The wetland is so close to Banfield Road it makes really tough to do. There seems to be a fair amount of things that changed from the plans to the presentation. There should be more information about the proposed culvert and the other items that were talked about today.

Ms. Tanner commented that she was also concerned that she didn't hear anything about potentially accessing the property through the Girl Scout Camp. It may be a way to avoid bisecting the wetland.

Ms. Harrison supported the Staff Memo recommendation and the motion. The first crossing is inadequate. Ms. Harrison was also concerned about the vulnerability of the wetlands. The development and topography will cause the wetland to collect runoff. The second crossing is also concerning. The most natural area for the wildlife to cross the road is where the high wall will be.

Chairman Miller commented that he would vote against the motion. The applicants really heard the Commission's feedback and made reductions to the impacts on the buffer. Chairman Miller appreciated the conversation about the tradeoffs. Chairman Miller supported the Staff Memo and the Commission's view but appreciated the work and reductions that were put into the plan. It would be good to see plans about tree preservation.

Ms. Blasko commented that because she missed the presentation at the last meeting she would be abstaining from the vote.

Ms. McMillan commented that it would be good to see winter maintenance and a low salt area in the condo bylaws. There should be more specifics on maintaining the eco-passages. They will require intense maintenance. There should not be any streetlights. They will be a huge problem for wildlife at night. Chairman Miller commented that they should include a lighting plan. It would be nice to know about light locations. There may be another way to get treatment without the tree boxes. Mr. Colwell clarified that the tree wells would be in the fill and roadway. Chairman Miller responded that should be updated in the plan.

The motion passed by a 5-1-1 vote. Chairman Miller voted against the motion. Ms. Blasko abstained.

III. OTHER BUSINESS

Chairman Miller provided an updated on the State Lafayette Road improvement project. They talked about three different concepts. They are doing a good job of listening to the public and the people on the committee. Ms. Tanner questioned if there was any mention of adding exits off I-95. Chairman Miller responded that they have talked about it. The Neighborhood Rep brought it up as well. They have the right goals in mind. They are gathering information and will bring concepts back in February. There will be a public meeting after that. They do need to know if there are any sections of the road that should be elevated. They are talking about storm water treatment, protecting wetlands and cultural resources. Vice Chairman Blanchard noted that the section with Water Country was congested and was concerned about traffic taking alternate routes through the neighborhoods. Chairman Miller responded that they have neighborhood reps from that area. They are on the right track to improve the whole corridor and lessen the impact to neighborhoods.

IV. ADJOURNMENT

Ms. McMillan moved to adjourn the meeting at 5:36 p.m., seconded by Ms. Tanner. The motion passed by a 7-0 vote.

Respectfully submitted by,
Becky Frey
Acting Recording Secretary