



Via email to kmurphy@exeternh.gov

October 29, 2021

Mr. Andrew Koff, Chair
Exeter Conservation Commission
10 Front Street
Exeter, NH 03833

RE: Exeter Rose Farm, LLC
Oak Street Extension
Exeter, NH

Subject: Steckler letter

Dear Mr. Koff,

I have reviewed the letter from Peter Steckler (hereafter Steckler) to the Exeter Conservation Commission dated September 30, 2021 and offer the comments below. Steckler is no longer a resident of Exeter; however his letter raises two primary issues, habitat fragmentation / connectivity and the analysis of alternatives, those which presumably would have less impact than the current proposal. I trust that Steckler was unaware that the opening of the proposed culvert on Rose Farm Lane had been increased from 16-feet to 24-feet in width when he composed his letter. Also, Steckler raises the same concerns that were discussed at length and ultimately rejected during the lengthy and thorough planning board process in 2018, which included input from the conservation commission.

Habitat Fragmentation / Connectivity

Regarding habitat fragmentation, the Natural Heritage Bureau identified American Eel as a species of concern at this location and Steckler claims to have captured an American Eel in a minnow trap in Norris Brook. Steckler points out that our wetland functional assessment for the project does not identify fish habitat as a principal function of Norris Brook. Regardless, the project design has heeded Steckler's concerns, acknowledging that fish and eels are likely utilizing Norris Brook, and has therefore proposed an open-bottom box culvert which will completely span Norris Brook from well above-the-bank on each side.

Norris Brook has an average bankfull width of approximately 11 feet in the area of the proposed crossing. At 24-feet wide, the box culvert will provide 6–9 feet on the south side and 6–16 feet on the north side, to the banks of Norris Brook (depending upon where measured – since the brook is not straight). Moreover, because Oak Street Extension is available to provide access to both sides of Norris Brook during construction, there will be no temporary crossing of Norris Brook in this area to install the box culvert.

The proposed design far exceeds the recommended guidance of culvert sizing encouraged by the stream crossing guidelines. The guidelines recommend a minimum of 1.2 times bankfull width and the design proposes a culvert with an opening of more than twice the bankfull width on average. This design will protect Norris Brook and the passage of both aquatic and terrestrial organisms as well as the habitat connectivity that Steckler is rightly concerned about.

Steckler repeatedly invokes the claim of habitat fragmentation throughout his letter. Steckler fails to acknowledge however that the proposed crossing is located amongst three other existing crossings that currently fragment the Norris Brook corridor in this area. The existing crossing of Oak Street Extension, the existing concrete weir structure and the railroad tracks are all within 800 feet of one another. (Norris Brook was also crossed to install the large gas pipeline at the west end of the site.) The railroad crossing is approximately 35-foot deep and provides a 3' X 5' granite slab culvert for the conveyance of Norris Brook. The proposed road crossing is located in between these three existing crossings; indeed, the new crossing is located approximately 20-feet downstream of the existing concrete weir structure (which is proposed to be rehabilitated by, in part, adding a ramp to facilitate eel passage). For these reasons the proposed 24-foot box culvert can hardly be considered as a new or complete fragmentation of Norris Brook as asserted by Steckler.

When discussing fragmentation, both large-scale (macro) and small-scale (micro) views should be considered. The small-scale view is discussed above. For the discussion of the macro view I have attached a graphic of the Exeter sewer system adjacent to the proposed project. See Figure 1 below. (The graphic was obtained from Exeter's Geographic Information System. The Exeter water supply system has a similar distribution network.) The bounds of the project site are identified in pink. As you can see, when constructed, the project will represent an extension of the existing dense residential development served by municipal utilities such as water and sewer. The project is not proposing to develop in the middle of a large contiguous area of vacant land or in an otherwise undeveloped or sparsely developed part of town (with or without municipal water or sewer). Similarly, the project is not proposing to develop land which is considered Highest Ranked Habitat by the NH Fish and Game Department - Wildlife Action Plan. Extending municipal sewer to the existing homes on this site will also help to improve water quality by retiring five effluent disposal systems of uncertain status, which will also benefit fish, eels and other aquatic organisms that may inhabit Norris Brook and the Squamscott River.

FIGURE 1



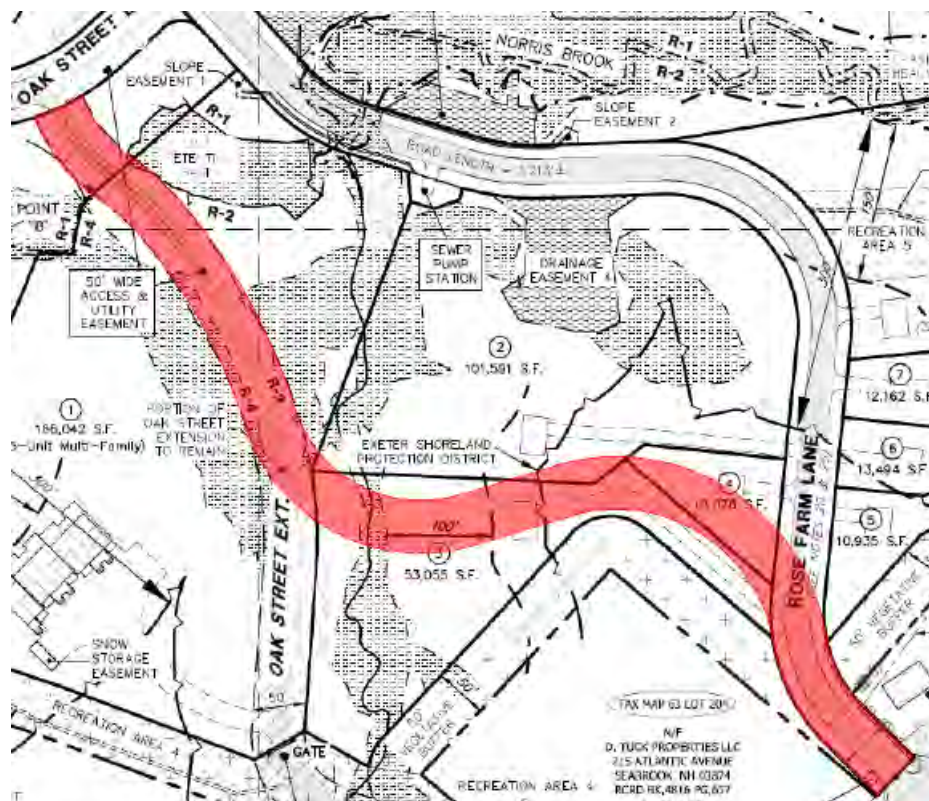
Analysis of Alternatives

Steckler advocates for a re-alignment of the proposed road to avoid the crossing of Norris Brook by merging the proposed road with Oak Street Extension prior to crossing Norris Brook. This alternative was discussed at great length during the planning board process and was eventually dismissed after it was concluded that the project design balanced total wetland impacts and overall ecological impacts with public safety and other considerations. As part of their review, the planning board hired a consultant to peer review access and other aspects of the project. Patrick Seekamp of Seekamp Environmental issued a letter on November 18, 2018, in which he states that the alternative which proposes “the widening and upgrading of Oak Street Extension will result in greater **overall** wetland and buffer area impacts, and will result in a longer “contact face” of the roadway and walls with existing wetlands.” This independent review confirms that the project has balanced impacts of wetland quantity and quality that Steckler rightly advocates.

The Seekamp letter mentions that the alternative promoted by Steckler and the abutters group will result in additional wetland buffer impacts. By default, this means additional impacts to wetlands. Note that Exeter environmental zoning regulates the wetland buffer, whereas the state regulations do not. It is important to remember that the applicant purchased the D’Agostino property at 1 Forest Street (assessor’s map 63, lot 205) specifically to provide a viable access alternative, one which would meet town road design standards and result in a more environmentally sound design, to otherwise buildable back land.

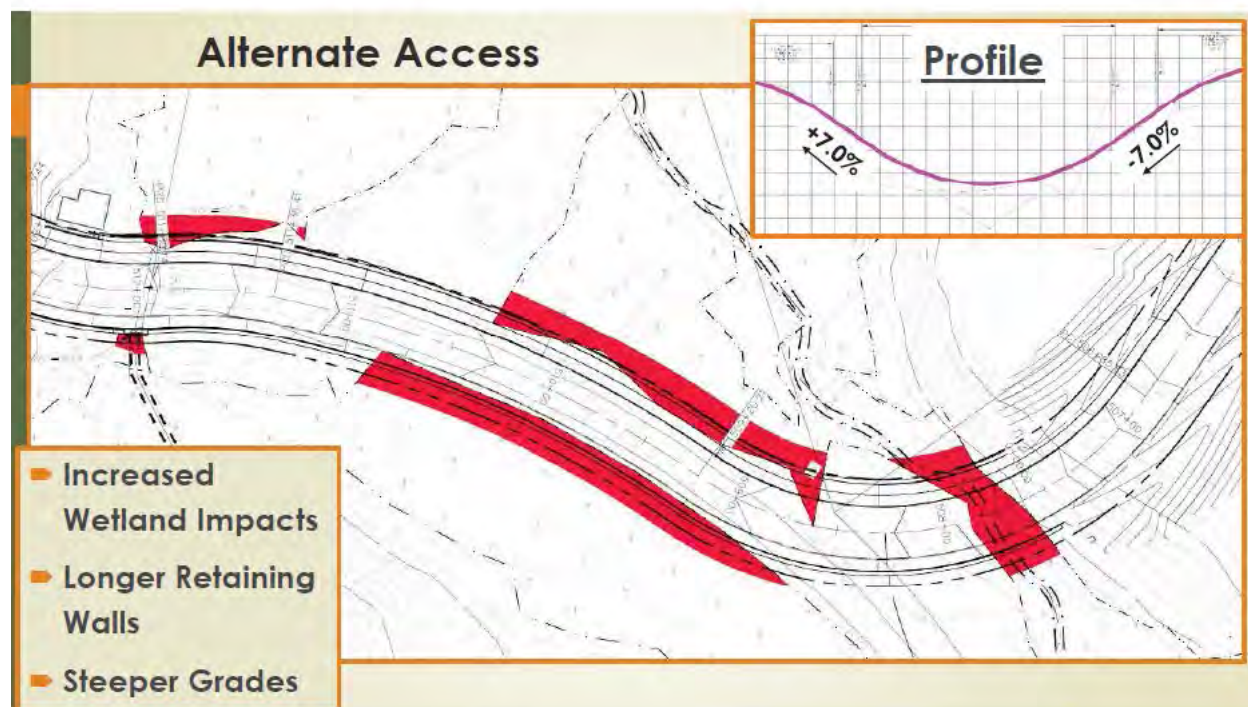
As part of the lengthy review process and the discussion of access alternatives, the graphic below, Figure 2, was submitted for the benefit of the planning board. The access alternative being advocated by Steckler on behalf of the abutters groups fighting the project is depicted in red shade.

FIGURE 2



It was determined that the Steckler alternative would result in 7,900± square feet (SF) of wetland impact, primarily due to the widening of the road as would be necessary to meet town engineering standards, which are intended to promote public safety, among other objectives. Note that the project is requesting 3,719± SF of wetland impact at the Norris Brook crossing. The Steckler alternative will result in more than twice as much wetland impact as the project has currently proposed. Refer to Figure 3 below, which was also previously presented to the planning board. Impacts are depicted in red.

FIGURE 3



It was also determined that the Steckler alternative would require approximately 1,020 linear feet (LF) of retaining wall, as needed to limit side slope grading and minimize unavoidable wetland impacts, primarily due to the widening of Oak Street Extension, which would be necessary to meet town engineering standards. The project as designed is proposing 410± LF of retaining wall. The Steckler alternative will result in 2.5 times as much retaining wall as the project has currently proposed. Refer to Figure 3 above. It is noteworthy that the abutters group which Steckler represents previously argued to the planning board that the costs for long-term maintenance of the infrastructure associated with this project would be an excessive financial burden to the town, yet they continue to advocate for additional infrastructure. Note also that the alternative advocated by Steckler would require the project to fill a portion of the pond, which provides habitat for aquatic organisms and also constitutes an impounded section of Norris Brook.

Steckler indicates that he agrees with our wetland functional assessment that the crossing of Norris Brook proposed by the project involves the highest quality wetland system on the property (as compared to other systems on the property). He fails to note however that the access alternative which he is advocating is located within that same high value wetland system and a short distance upstream of Norris Brook on the unnamed perennial stream. The planning board ultimately concluded that any benefits derived from directing impacts at the unnamed perennial stream and wetlands along Oak Street Extension did not sufficiently outweigh the massive increase in total impacts to the wetland system, especially since these impacts are adjacent to Norris Brook anyway.

Refer to Table 1 below for a comparison of impact quantities proposed by the current design and those associated with the alternative advocated by the Steckler.

TABLE 1

	Wetland Functional Quality	Impacts (SF)	Change (SF)	Retaining Wall Length (LF)	Change (LF)
Project Alternative	6 principal functions-high	3,719	NA	410	NA
Steckler Alternative	6 principal functions-high	7,900± [Ⓜ]	+4181	1,020	+610 LF

[Ⓜ]Does not include wetland impacts from stormwater management best management practices or a sewer pump station which will undoubtedly need to be located adjacent to the unnamed perennial stream since it is the lowest elevation in the area.

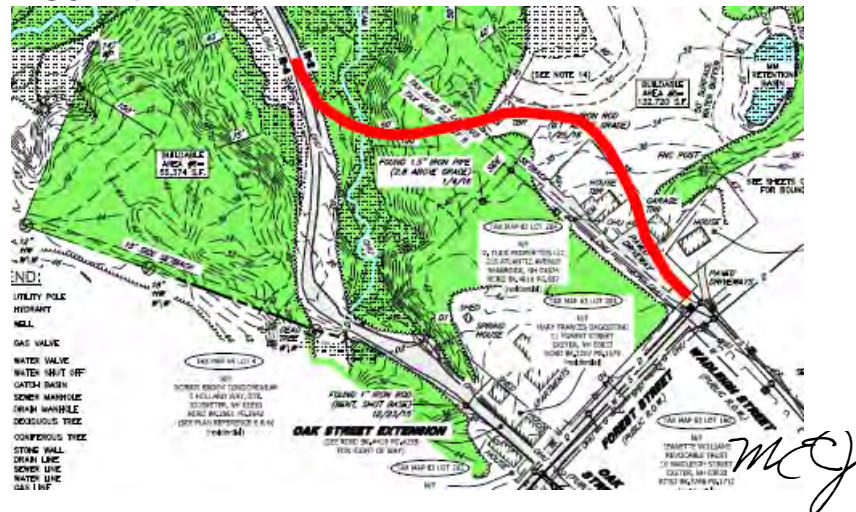
Our analysis of alternatives takes into account the Steckler alternative and the associated wetland impacts as well as the overall impact to the system including the functional quality of the resources involved. The alternative advocated by Steckler would still require a new crossing of a perennial stream. This stream is tributary to Norris Brook, which is approximately 300 feet downstream from the Steckler crossing. The alternative crossing will also contribute to the fragmentation of the unnamed perennial stream at the micro level. The unnamed perennial stream does not have the same contributory watershed as Norris Brook (96± acres vs. 544± acres); however, watershed size does not always directly correlate to stream function or importance. The alternative crossing will still require significant grading of adjacent uplands, many of which are precipitous, as depicted in Figure 4 below. Precipitous slopes are those slopes greater than 15 percent and are depicted in orange. The approximate alternative route is depicted in red. (The width of the right-of-way is not to scale as in Figure 2 above.)

FIGURE 4



The Steckler alternative will still result in the loss of a comparable area of forest to gain access to otherwise buildable land. Refer to Figure 5 below. Existing forests are depicted in green. The approximate alignment of the Steckler alternative is depicted in red. (The width of the right-of-way is not to scale as in Figure 2 above.)

FIGURE 5



It is worth noting that portions of the wetlands which are proposed to be impacted by construction of the preferred alternative have been previously altered when the property supported the brickyard (as evidenced by the bricks in the streams) as well as during the excavation of the pond and again during construction of the concrete weir structure.

A thorough analysis of alternatives must also account for non-wetland considerations. All landowners have a right to cross wetlands to access otherwise buildable lands and to do so in a safe manner. The alternative advocated by Steckler would provide one route of access and egress in the event of an emergency. The proposal being put forth by the project will provide a secondary means of access and egress in an emergency. This is especially important should any emergency result in closure of the primary access road. Similarly, regarding traffic safety and the roadway design, the approaches to the stream crossing in the Steckler alternative will be 7 percent from both directions, whereas the approaches in the current design alternative are 6.9 percent and 3.75 percent and utilize terrain that is less precipitous. Finally, the Steckler alternative requires several curves and reverse curves that are close together. This arrangement is considered less safe from a traffic safety perspective.

Steckler would like us to believe that there is an alternative road alignment which has much less impact in terms of wetland quantity or quality than the preferred alternative but as described above, this is clearly not the case. We are confident we have clearly demonstrated that the project has thoroughly evaluated the two access alternatives and trust that the commission will agree that we have chosen the alternative for access which balances impacts to wetland quality with impacts to wetland quantity as well as other considerations such as public safety.

Sincerely,

Marc Jacobs, CWS, CSS, CPESC

