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June 14, 2022

Ms. Valerie Oorthuys, Town Planner
Bolton Town Hall
663 Main Street
Bolton, MA 01740

Re: Comprehensive Permit Application
Mallard Lane - Bolton, MA

Dear Ms. Oorthuys;

This letter is in response to Horsley Witten Group's wetlands peer review memo. Horsely Witten Group comments are numbered and noted as HW and Norse response is bolded and noted as Norse (6-14-22) below.

1. Given the lack of definitive information and missing flagging stations and missing wetlands on the plans, HW recommends that the Applicant at a minimum, seek to have the boundaries of all wetland areas established by a wetland professional and survey located on to the existing conditions plan, and file an ANRAD with the Conservation Commission to confirm the wetland boundary and any other resources that may affect the jurisdictional status of this site under the Massachusetts Wetlands Protection Act and/or the Bolton Wetland Bylaw.

HW (01/11/2022): The Applicant's consultant, Norse Environmental Services, Inc., has responded that the Commission issued a Determination of Applicability on April 23, 2019, and included a copy of a Determination. We note that this determination was issued on July 2, 2019 (not April 23, 2019), and would expire on July 2, 2022, but for the permit tolling guidance issued by the Massachusetts Executive Office of Energy and Environmental Affairs (EEA), which would extend the Determination expiration to October 7, 2023.

The Determination includes the following in the description:

“At this time there is no work proposed. The applicant is inquiring about the boundaries regarding an isolated basin-like area established as a Potential Vernal Pool on NHESP survey.”

The Determination also clarifies under the Determination 2a. that the boundary delineations of the following resource areas are confirmed as accurate:

“Solely the isolated basin area/Potential Vernal Pool shown on plans referenced above. At this time, the boundary not inclusive of jurisdictional offsets, are confirmed. The applicant shall file a Notice of Intent for the proposed project inclusive of all wetland resource areas delineated, and their adjacent offsets.”

The recently submitted plans include a newly delineated wetland area, the “B-series” which was not part of the Commission’s Determination. And although the Applicant’s consultant indicates that the area is “too small to be considered a potential or certified vernal pool” and “is unlikely to hold water for a minimum of two months to allow the amphibians to metamorphosis,” this has not yet been approved by the Conservation Commission.

HW notes that our original recommendation regarding a filing with Conservation still stands, and that the boundaries of the additional wetland areas shown on the plans will need to be confirmed through the NOI review process or under an ANRAD. Further, and as discussed in our original letter, the vernal pool status of these wetland areas has not yet been determined.

Norse (6-14-22): Agreed. The applicant shall file an NOI for the roadway entrance and the B-series wetland shall be verified and confirmed.

2. Based on HW’s calculations from the PDF plans, the isolated wetland area is approximately 10,900 SF (0.25 ac). As part of the wetland resource area determination, the Applicant should also seek to confirm the jurisdictional status of this area as an Isolated Land Subject to Flooding (ILSF).

HW (01/11/2022): The Applicant’s consultant has responded that the Applicant will verify the ILSF status during the permitting process with the Conservation Commission.

The remainder of HW’s comments regarding the wetland resource areas have not been addressed at this time. We have repeated our original comments here for reference and continuity between comment letters. Our original comments stand.

3. As the performance standards for work within 100-feet of a vernal pool are more stringent and include a limitation on the removal of trees within 100 feet of a vernal pool, we recommend that the Applicant at a minimum file an ANRAD with the Conservation Commission to confirm the wetland boundary as recommended above, and quantify the removal of trees in this area as well as the amount of disturbance within vernal pool habitat, such that the Town may better understand the environmental implications of the extent of work proposed within the 100-foot buffer. Similar calculations should be presented for the project work within the buffer zone to the other wetland areas.

Norse (6-14-22): The applicant will NOT file an ANRAD to confirm the wetland boundary. An ANRAD filing requires the property owners’ signature and the A-series wetland is not on our property. In lieu of the ANRAD filing and required signature, a Request for Determination of Applicability (RDA) was filed for the wetland boundary.

The Bolton Conservation Commission Wetlands Bylaw Regulations 2.02 Request for Determination of Applicability under the Bylaw: state, “Any person also may request the Commission to **verify a wetland boundary delineation**”. The Conservation Commission reviewed the filing and agreed with the wetland boundary for the A-series wetland.

The applicant is proposing to clear and remove (21) trees within 100 ft. of the vernal pool or vernal pool habit. The measured trees are 6” dbh and larger.

HW (01/11/2022): Given the proximity of proposed work within 25 feet of the isolated wetland area, the wetlands regulations under Section 3.02(3) grant discretion to the Conservation Commission to seek mitigation commensurate within the scope of the project.

Norse: (6-14-22): The project plans have been revised and no work is proposed within the 25 ft. of the isolated wetlands. The applicant shall restore the buffer zones along the easterly edge of the roadway and behind units 7 & 8. A New England Conservation/Wildlife Mix shall be applied, and these areas shall be allowed to naturalize. In addition, signage can be added to prevent future encroachment.

4. Should the Town determine that the project has met its burden for avoiding and minimizing impacts to resource areas and the AURA, we recommend that the Town consider appropriate mitigation measures for this project site.

HW (01/11/2022): Comment stands.

Once the Applicant has provided this additional information to the Town, HW may have additional comments regarding the protection of wetland resource areas and specifically on the local interests protected under the local wetland’s bylaw and regulations

Norse: (6-14-22): Please see the alternative analysis provided for item 5. The applicant shifted the roadway location and is proposing to improve the existing conditions by removing the gravel drive, loaming, seeding, and allowing this area to naturalize. In addition, the disturbed areas beyond the roadway guardrail shall be loam, seeded and allow to naturalize. A New England Conservation/Wildlife Mix shall be applied to the disturb area and allowed to naturalize.

Relief Sought from Local Wetlands Bylaw and Regulations

5. HW recommends that the Applicant specifically state if it is seeking relief from the local bylaws as part of the Comprehensive Permit application, including under §233 – Wetlands to allow for alterations within the adjacent upland resource areas (AURA).

HW (01/11/2022): Comment stands.

Norse (6-14-22): Yes, Dillis and Roy, Civil Design Group, Inc. has provided a letter listing the requested waivers.

HW (01/11/2022): The local wetlands bylaw requires that the Applicant consider project alternatives:

Where the presumption set forth in Section 1.18.2 is not overcome, the Applicant shall prove by a preponderance of the evidence that there are no practicable and substantially equivalent economic alternatives to the proposed project with less adverse effects on the interests identified in Section 1.18.1. Further, the Applicant shall prove that the work including proposed mitigation will have no significant adverse or cumulative adverse effect on the resource areas or resource interests.

Norse (6-14-22): A-series Alternative Analysis:

1. The first alternative is to relocate the roadway outside of the 100 ft. buffer zone and AURA. Unfortunately, this is not possible because the 100 ft. buffer zone and AURA extends to the westerly property line. The applicant would not be able to access the remaining upland area on the lot and only one dwelling would be allowed to be constructed.
2. The second alternative is to utilize the existing gravel driveway. This alternative minimizes the disturbance on the lot for the roadway construction. This was the original proposal presented to the Town. The Town requested the roadway to be relocated further west to provide a greater buffer to the A-series wetland and certified vernal pool.
3. The third alternative is to shift the roadway entrance further west to provide a greater buffer to the A-series wetland. The roadway and sidewalk are proposed 73 ft. off the corner of adjacent dwelling (342 South Bolton Road). This is not a desirable alternative for the property owner at 342 South Bolton Road or the applicant. It is not possible to shift the roadway further west because of the septic system for unit 1 and infiltration area. The septic system is required to be at least 100 ft. from the certified vernal pool/isolated wetland and the project requires infiltration.
4. The fourth alternative is to minimize the clearing within the AURA behind Unit #8. This is not a desirable alternative as the clearing is minimal or proposed 45 ft. off the rear of the dwelling to the gravel driveway. The existing gravel driveway is located between the A-series wetland and Unit 8. The applicant is proposing to improve the existing conditions by eliminating the gravel driveway and loaming, seeding, and allowing this area and graded slopes to naturalize. A New England Conservation/Wildlife Mix shall be applied, and these areas shall be allowed to naturalize

Norse (6-14-22): B-series Alternative Analysis:

1. The first alternative is to relocate all the work outside the 100 ft. Buffer Zone or AURA from the B-series wetland. Unfortunately, this is not possible alternative for the applicant or the town. The project has already been redesigned from a 11-unit detached age-restricted single family residential dwellings to 8-units. If unit 7 is eliminated from the design the project becomes unfeasible and the town loses out on essential affordable housing.
2. The second alternative is to minimize the grading behind unit 7 and provide a greater buffer to the AURA. Unfortunately given the existing grades or “knoll” on site this is not possible

alternative. A retaining wall is incorporated along the rear property to minimize the grading on site.

3. The third alternative is to shift the dwelling closer to the cul-de-sac and further from the ARUA. Unfortunately, this is not a possible alternative because the dwelling is 20 ft. from the cul-de-sac. The house design provides a (2) car garage and 20 ft. long driveway for parking. The driveway can't be reduced because there is no shared or public parking proposed on site. In addition, the project is not designed to allow parking around the cul-de-sac.

6. HW recommends that the Town take into consideration the need for the Applicant to demonstrate to the satisfaction of the Conservation Commission that all efforts have been made to avoid and minimize resource area and local buffer (AURA) alterations when reviewing the Comprehensive Permit application.

HW (01/11/2022): Comment stands.

Norse: (6-14-22): The existing conditions does not provide a 100 ft. wooded buffer from the A-series wetland. There is a 12 ft. wide gravel drive that traverses through the AURA. The applicant has shifted the roadway 40 ft. westerly to provide a greater buffer to the resource area and AURA. Most of the roadway grading is proposed within the disturb areas or existing gravel drive. The applicant is proposing to improve the existing conditions by restoring, applying a New England Conservation/Wildlife Mix and allow this area to naturalize. Once the area is naturalized most of the AURA will be restored.

The applicant is proposing to cut the trees and vegetation within the B-series AURA. The closest proposed work is 43 ft. from the isolated wetland however the applicant is providing an average 50 ft. buffer width from the isolated wetland. The tree removal and grading are necessary due to the existing topography and grades of the site. Please see the above alternative analysis for the B-series AURA.

HW (04/19/2022): One of our original points raised was the potential for the largest of the wetland areas (Wetland A) to serve as vernal pool habitat, which has been documented by a local school group. Should there be any question of the vernal pool status for Wetland A, it is now the appropriate time of year to make said determination.

7. HW recommends that the vernal pool status of Wetland A be confirmed as it relates to the protection of vernal pool habitat in light of the proposed project.

Norse: (6-14-22): The vernal pool status has been confirmed and in the process of being certified with the Natural Heritage and Endangered Species Program. A local area school performed a site visit in the spring of 2022 and documented the obligate species of fairy shrimp (*Eubbranchipus* sp.) within the pool.

HW (04/19/2022): In response to HW's comment #5, regarding relief sought from the local wetland's bylaw and regulations, the Applicant has outlined the specific relief sought from the

Bolton Wetlands By-Law Section 233-2 to allow alterations depicted on the plans within the adjacent upland resource area and buffer zones to wetland resource areas.

HW feels that it is important for the Town to understand the implication of the requested relief. This includes relief from the wetland setbacks relating to proposed grading, pavement, and a retaining wall associated with the main road; setbacks from proposed wells for four of the eight proposed units, placement of a stormwater outfall, and one of the units (Unit 7) as outlined in the table below.

We note that many of the requested reliefs pertain to work within 100 feet of Wetland A, where under existing conditions, this wetland appears to be forested to the north, east (off site), and south, and southwest, with the existing gravel road passing just to the west. As pointed out in HW’s wetlands comment #3, the proposed project will infringe upon the 100-foot vernal pool habitat.

Relief Sought	Distance to Wetland (feet)	Wetland Designation
Grading*	30	A, B
Pavement	56	A
Retaining wall	44	A
Drainage Outlet	62	A
Well (Unit 1)	73	A
Well (Unit 6)	100	A
Well (Unit 7)	57	B
Well (Unit 8)	78	B
Unit 7	90	B

- HW recommends that the Applicant quantify the amount of lost forested vernal pool habitat that will occur as a result of the proposed site grading and installation of the proposed road as currently designed and assess how the loss of this forested habitat would affect the vernal pool habitat.

Norse: (6-14-22): The applicant is proposing to remove (21) trees, restore the existing gravel driveway and construct a new roadway within the AURA. The permanent disturbance (roadway, grading and clearing) is approximately 13,406 s.f. The area east of the roadway shall be restored, a New England Conservation/Wildlife Mix shall be applied to the disturbed areas and allowed to naturalize. The total proposed permanent alteration within the vernal pool habitat is approximately 7%.

- HW recommends that the Town seek to have the Applicant qualify and quantify how the proposed wells for Units 1 and 6 will affect the water levels in the potential vernal pool within Wetland A.

Norse: (6-14-22): The certified vernal pool/isolated wetland appears to be man-made likely for agricultural purposes back in the early 1900's. The pool is primarily fed by ground water, melting snow, rain and occasionally dries up.

The applicant is proposing artesian wells for the detached dwellings. Artesian wells are usually deep wells, located below the water table, through impermeable rock to an aquifer below. MassDEP Well Completion Reports shows nearby wells between 425 ft. - 525 ft. deep.

The installation and function of an artesian wells will not affect the certified vernal pool because the wells are installed below the water table, through impermeable rock to an aquifer below.

10. HW recommends that the Town seek to have the Applicant qualify and quantify how the proposed stormwater outfall will affect the water levels and the water quality in the potential vernal pool within Wetland A.

Norse (6-14-22): The stormwater outfall is the emergency overflow for the infiltration system. Rip rap rock is proposed at the outlet to slow the water and prevent erosion. The area beyond the outlet will be stabilized with plantings. The existing gravel drive shall be removed, loam, seeded and allowed to naturalize. The remaining area near the vernal pool is wooded.

The outlet is located 75 ft. from the certified vernal pool and will not affect the water levels or water quality. The infiltration system is designed with a pretreatment filter fabric and will infiltrate the water. On the times the system does overflow the clean water will infiltrate into the ground before reaching the vernal pool.

11. HW recommends that the Applicant quantify how much of the vernal pool habitat will be lost as a result of site grading and installation of the proposed road.

Norse: (6-14-22): The applicant is proposing to remove (21) trees, restore the existing gravel driveway and construct a new roadway within the AURA. The permanent disturbance (roadway, grading and clearing) is approximately 13,406 s.f. The area east of the roadway shall be restored and allowed to naturalize. The total proposed permanent alteration within the vernal pool habitat is approximately 7%. The applicant shall restore the buffer zones along the easterly edge of the roadway and behind units 7 & 8 with a New England Conservation/Wildlife Mix. These areas shall be allowed to naturalize, and signage can be added to prevent future encroachment.

If you have any questions or concerns regarding the above information, please do not hesitate to contact me.

Sincerely,

Maureen Herald

Maureen Herald, PWS, CWS