



[LEC File #: MCEI\20-002.04]



August 18, 2022

Email (rgendreau@sturbridge.gov)

Sturbridge Conservation Commission 301 Main Street Sturbridge, MA 01566

Re: NOI—DEP File #300-1113

Blueberry Hill Estates - Lot 3 Berry Farms Road 20 Fiske Hill Road / Parcel ID: 280-03534-020-portion 30 Main Street / Parcel ID: 415-03914-030-portion

Sturbridge, Massachusetts

Dear Members of the Commission:

On behalf of the Applicant, Justin Stelmok, LEC Environmental Consultants, Inc., (LEC) is submitting supplemental materials for the Notice of Intent (NOI) Application for Blueberry Hill Estates, a 55+ Housing Community ("Manufactured Housing Community") on the above-referenced site. The Applicant is proposing further plan revisions in response to Commissioners and Staff comments received during the July 14th Public Hearing.

The proposed revisions have been designed to further minimize disturbance within the 200-foot Vernal Pool Buffer Zone and expand the habitat corridor/connection between the southerly A-series Vernal Pool and E-series Vernal Pool. Proposed revisions are depicted on the accompanying Sheet C14 of the *Special Permit and Site Plan* set. Project revisions specifically include:

- Eliminating a total of three (3) lots (Lots 5, 67, & 68).
- Expanding the grated crossing structure to 5-feet wide x 3-feet tall abutting a 4-foot tall (max. and tapering) retaining wall along Proposed Drive A.
- Additional reduction/shifting of building footprints and grades on Lots 3, 4, 6, 69, 70, & 71
- Eliminating the side retaining walls abutting the lots surrounding the habitat corridor in lieu of regraded side slopes to be revegetated and left to naturalize.
- Updates to stormwater management (rain gardens) abutting the reduced/shifted structural and driveway footprints for Lots 3, 4, 6, 69, & 70.
- Expanded Open Space (see below).

In addition to the on-site Open Space as previously detailed, the Applicant is proposing to extend the conservation easement over $8.5\pm$ acres onto the westerly abutting Lot 4 to include the entirely of the Aseries Vernal Pools and associated 100-foot Buffer Zones. Cumulatively, the Applicant is proposing to protect $25.0\pm$ acres of Open Space as depicted on the accompanying *Open Space Plan* (8/18/22).



As currently proposed, the project complies with the *Town of Sturbridge Wetlands Bylaw* ("*Bylaw*," Chapter 286) and *Wetlands Regulations* ("*Bylaw Regulations*"). The *Bylaw Regulations* stipulate that the first 100 feet of the Vernal Pool Buffer be considered the minimum "no disturb" buffer. This buffer zone may be extended to 200 feet based on site conditions and impacts to critical wildlife habitat needed to keep the pool viable. Section §365-5.6 E. (Vernal pools, certified, potential and identified—General performance standards) of the *Bylaw Regulations* specifically states:

Any work with in the 200-foot buffer zone to a vernal pool shall not cause a significant adverse impact to any function of a vernal pool. It shall not result in a measurable decrease in extant wildlife populations or biological community composition, structure and species richness of the site or in the vicinity, exclusive of the present or future state of adjacent or nearby property, or impair, damage or reduce in value for wildlife purposes identified specific habitat features. The Commission shall take into account indirect effects, including but not limited to effects of nearby human activities, on a case-by-case basis.

The project will not result in a significant adverse impact to the on-site Vernal Pools. In other words, the proposed work activities within the 200-foot Vernal Pool Buffer Zone will not substantially reduce or impair the Vernal Pools' or Buffer Zones' capacity to provide important wildlife habitat functions.

The proposed revisions provide greater habitat protection within 200 feet of the Vernal Pools. No work is now proposed within the 200-foot Buffer Zone to the E-series Vernal Pool east of Proposed Drive A (Lots 2-4 and 6).

The following reviews an updated and more detailed impact calculations (±square footage):

Vernal Pool	Total Proposed 100-200 foot	Proposed Impervious	Proposed Rain	Proposed Lawn	Proposed Revegetation	Total VP Buffer
	VP Buffer	(structure/	Garden			Protected
	Disturbance	drive/road)				
A-series Vernal	19,800	4,650	2,445	5,105	7,600	130,761
Pool (south)		(3.6%)*				
A-series Vernal	11,325	1,515	615	3,575	5,620	225,968
Pool (north)		(0.67%)*				
E-series Vernal	11,700	3,675	295	4,095	3,635	123,252
Pool		(3.0%)*				

^{*}Proposed Impervious/Total VP Buffer Protected

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The project will cumulatively protect 11.02± acres within the 200-foot Vernal Pool Buffer. The project proposes to disturb, including temporary disturbances associated with regrading and the rain gardens, a total of 8.5% of the 200-foot Vernal Pool Buffer in comparison to that protected in the Open Space.

The proposed disturbance within the 200-foot Vernal Pool Buffers is minimal in nature, especially in consideration of the Buffer that will be protected as permanent Open Space. Spotted Salamanders (*Ambystoma maculatum*) have been identified to breed within all three on-site Vernal Pools, while Fairy Shrimp (*Eubranchipus vernalis*) have been identified within the southerly A-series Vernal Pool and E-series Vernal Pool. Wood Frog (*Lithobates sylvaticus*) breeding activity has only been documented within the E-series Vernal Pool. The Vernal Pools also provide general wildlife habitat (food, shelter, breeding, migratory, and/or overwintering areas) for various wildlife, including invertebrates, amphibians, reptiles, mammals, and birds.

The project, including construction and future uses, will not result in adverse effects to the Vernal Pools. The rain gardens have been designed to treat/manage stormwater, promote natural recharge, and minimize site disturbances, specifically within the 200-foot Buffer Zones. No Vernal Pools will be receiving less runoff volume post-development in comparison to pre-development.

The proposed project has been specifically revised to minimize impacts within the 200-foot Vernal Pool Buffer Zone, while maximizing setbacks and providing ample migratory corridors/habitat connections. The project will not substantially reduce the Buffer Zones' ability to function as overwintering or migratory habitat for the identified Vernal Pool amphibians. The proposed project will not negatively impact critical wildlife habitat associated with the Vernal Pool and Buffer Zone. The development will not impair the viability of the pool to function as breeding habitat. As proposed, significant critical terrestrial habitat will be retained surrounding the on-site Vernal Pools. Previously logged, forested upland areas and associated logging roads outside of the development footprint will be allowed to naturally revegetate and provide improved overwintering/migratory habitat for Vernal Pool breeding amphibians.

Ample migratory corridors will be maintained and permanently protected around and between the on-site Vernal Pools. The expanded 5-feet wide x 3-feet tall crossing structure will enable smaller wildlife, including migrating Spotted Salamanders, to migrate between the A-series southerly Vernal Pool and E-series Vernal Pool and surrounding forested upland. The crossing will be grated to allow sufficient sunlight penetration and moisture to the naturalized bottom. The crossing structure will be maintained through the community Operations and Maintenance Plan to ensure proper functionality and that the passage is free of obstruction. Larger wildlife (e.g., white tailed deer) accustomed to suburban landscapes will be able to cross over the roadway and/or will be redirected around or through other portions of the development footprint. Significant long-term impacts associated with habitat fragmentation are not

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anticipated. Appropriate signage and community education can be provided to notify residents and visitors of wildlife in the area.

As proposed, the project will not result in a cumulative significant adverse impact on the on-site Vernal Pools. The project is not anticipated to result in a measurable decrease in extant wildlife populations, including Spotted Salamanders, Fairy Shrimp, or general wildlife species; or negatively impact biological community composition, structure and species richness of the site or in the vicinity; or impair, damage or reduce in wildlife habitat value or functions/values. The 25± acre Open Space, including the 11.02± acres within the 200-foot Vernal Pool Buffer, will permanent protect important wildlife habitat in perpetuity.

Thank you for your consideration of this supplemental information. We look forward to August 25th Public Hearing to discuss the proposed revisions further. Should any questions in advance, please do not hesitate to contact me at 508-746-9491 or at bmadden@lecenvironmental.com.

Sincerely,

LEC Environmental Consultants, Inc.

Brian T. Madden

Senior Wildlife/Wetland Scientist

cc: Oxbow Associates Justin Stelmok McClure

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