



December 18, 2021

Doug Hoehn
Schofield, Barbini & Hoehn, Inc.
PO Box 339
Vineyard Haven, MA 02568

RE: 76 Christiantown Rd. (Pcl. 12-33) West Tisbury, MA

Dear Doug:

At your request, we visited the above-referenced property on December 17, 2021 to examine a $\pm 1,800$ sq.ft. isolated depression, which was previously flagged on November 11, 2021. Those flags were surveyed and are portrayed on your Site Plan dated December 15, 2021. During our recent visit we observed the vegetative community, the local hydrology, and the soil conditions within this depression.

The subject area is an isolated topographic depression located on the Martha's Vineyard moraine deposit, typical of the north shore of the island. It is a dense, thorny thicket of vines intertwined with shrubs (see attached photos). Species observed both within the depression and along the perimeter include: greenbriar (*Smilax rotundifolia*), wild grape (*Vitis labrusca*), arrowwood viburnum (*Viburnum dentatum*), winterberry (*Ilex verticillata*), red maple (*Acer rubrum*), American beech (*Fagus grandifolia*), and mixed oak species (*Quercus* sp.).

This isolated depression has no inlet or outlet, and a small, mostly wooded, local contributing drainage area estimated at <0.5 acres. While the depression was not ponded on the date of our visit, we observed stained leaves in the lowest portion of the depression, which indicates periodic saturation at, or slightly above, the surface. This ponding appears to be less than 6" in depth and occupies an area of approximately 400 sq. ft. The soil test holes in the lowest point in the depression showed soils that were hydric in nature, with a 6" dark organic O-horizon and a Bg-horizon that was gleyed and strongly mottled.

The water confined in the depression is surface water runoff from adjacent land perched above dense clay till that is common to this area of Martha's Vineyard. Soil test pit data for the existing septic system, and a future foundation confirms this.

Based on our reading and understanding of the DEP Wetlands Protection Act Regulations and the Town of West Tisbury Wetlands Protection Bylaw Regulations, we would classify this area as an isolated depression that 1) is not hydrologically connected to a waterbody, or a wetland connected to a waterbody; 2) confines standing water over an area of less than 1,000 sq.ft.; and 3) confines standing water to a volume of less than $\frac{1}{4}$ acre-foot. Even under extreme conditions



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(frozen ground, snow melt and/or extraordinary storm events), ponding in this isolated depression would be infrequent and temporary.

Even though we would not classify this small depression as a “regulated resource area”, it nonetheless is an interesting landscape feature that provides some habitat for local wildlife. The activities proposed on the Site Plan do not appear to pose an adverse impact on this depression.

If you have any questions, please do not hesitate to contact me.

Sincerely,

Douglas E. Cooper, Earth Scientist
Cooper Environmental Services, LLC



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Isolated depression facing north



Water-stained leaves at lowest elevation of depression



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Soil Sample O and Bg horizons