

B & C Associates Inc.

Wetland Consultants

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ATTN: Travis Brown
Turning point Engineering
PO Box 757
Sutton, MA 01590

June 5, 2024

RE: Wetland Resource Areas
3 Crest Avenue
Worcester, MA

Dear Mr. Brown,

I visited the above referenced site, as per your request, on May 25, 2024. The purpose of my visit was to determine if there were any wetland resource areas present within 100 feet of this site as shown on a plan of the adjacent property (5 Crest Avenue).

When I arrived, I viewed the site and found the proposed house and septic locations had already been cleared of vegetation. This site is located on the side of a hill which slopes down sharply from the edge of Crest Avenue. Upon looking down to the bottom of the slope, I witnessed several the presence of several Skunk Cabbage (*Symplocarpus foetidus*).

Skunk Cabbage are classified as Obligate wetland plant species. This means that they are most often found in wetlands more than 99% of the time. I went to the bottom of the slope and did determine that a wetland resource area was present. That resource area is Bordering Vegetated Wetlands (BVW) which has a 100-foot Buffer Zone extending into the adjacent upland from the boundary of the BVW.

I found a small wetland located just north of the toe of slope which drains further north through a small channel which slopes down the hill to a larger wetland complex located 200 to 300 feet from this property.

I then delineated the boundary of the BVW using a combination of vegetation and soils. I hung five wetland flags showing the closest point of the wetland to the toe of slope as well as showing the direction in which each end of the flagging was headed (away from the site).

The upland vegetation was dominated by invasive plant species as well as Black Cherry (*Prunus serotina*) and White Ash (*Fraxinus americana*). The dominant wetland plants were Skunk Cabbage, Spicebush (*Lindera benzoin*) and Silky Dogwood (*Cornus amomum*). There

were upland plants in the wetland and vice versa. I has also checked the soils while performing the delineation. I found the upland had an A horizon with a Munsell soil color of 10 YR 2/2 to a depth of 6 to 8 inches throughout the upland. The B horizon (directly below the A horizon) had a consistent Munsell soil color of 10 YR 5/6. The depth was 6 to 15 inches throughout the upland.

When I looked at the soils along the toe of slope, I found three to four inches of silt over the A horizon which had a Munsell color of 10 YR 2/2 to a depth of 6 to 8 inches. The B horizon had the same upland soil color which was 10 YR 5/6 to a depth of 10 to 13 inches where I had refusal. The wetland soils colors were darker in the A horizon (10 YR 2/1) with a B horizon which had a varying Munsell color of 10 YR 4/2 to 10 YR 5/2. There was also water in the soil sample holes within the wetland.

Finally, there appears to be groundwater breaking out along the toe of slope which may have contributed to the presence of the Skunk Cabbage. The soils were moist, and we had been experiencing above average rainfall prior to my site visit. All these factors could explain the Skunk Cabbage growing slightly further uphill than expected.

I am available to meet with the City of Worcester Conservation Commission, at the site, I they have any question or concerns regarding my findings.

Sincerely,

David Crossman

David Crossman
Sr. Wetland Biologist