

April 22, 2020

Ms. Linda Avis Scott, Clerk
Shutesbury Conservation Commission
Town Hall
P.O. Box 276
1 Cooleyville Road
Shutesbury, MA 01072

Re: Abbreviated Notice of Resource Area Delineation (ANRAD)
Pratt Corner Road West
Shutesbury, MA
(Parcel ID ZW-6)
DEP File # 286-0277
Wetland Consultant Peer Review Proposal

Dear Ms. Scott and Commissioners:

Per request, Stockman Associates LLC has commenced with a wetland consultant peer review of an Abbreviated Notice of Resource Area Delineation (ANRAD) submitted by TRC Companies on behalf of their client, W.D. Cows, Inc., for the review of delineated resource area boundaries located within a specific study area of the property located off Pratt Corner Road (Parcel ID ZW-6) in Shutesbury, MA. Based on the ANRAD submittal prepared by TRC Companies dated December 27, 2019, the boundaries of Bordering Vegetated Wetlands (BVW), Isolated Wetlands and Bank were reviewed. In addition, the entire 40-acre study area is being reviewed to confirm that there are no additional protected wetland resource areas.

Materials Reviewed

- ANRAD WPA Form 4A, "*Abbreviated Notice of Resource Area Delineation Pratt Corner Road (Parcel ID ZW-6) Shutesbury, MA*" and other supporting documents within the December 2019 ANRAD submittal prepared by TRC Companies
- Site Plan "*Delineated Resources Map Pratt Corner Road West Project Franklin County, MA*" prepared by TRC Companies (Sheets 1 through 14) Attachment D of the December 2019 ANRAD submittal

Site Visit

- On April 14, 2020, a site visit was made by Ms. Emily Stockman (Stockman Associates LLC), Ms. Maria Firstenberg (TRC) and Mr. Liam Cregan (Shutesbury Conservation Commission) to review delineated resource areas and the 40-acre study area.

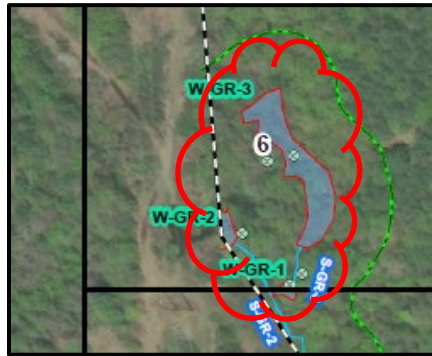
Review Comments

- 1) The delineation report states that handheld GPS data was post-processed to achieve sub-meter accuracy. The Commission may request supporting documentation regarding the GPS accuracy to ensure that all plans accurately describe the site and the resource area boundaries. Inaccuracies with sub-meter GPS mapping has presented issues with previous projects.
- 2) At the time of the initial site visit the study area was partially demarcated by the boundary with the utility right-of-way, blazed property boundaries, and road frontage along Pratt Corner Road. In addition, survey stakes had been placed at the corners of the study area and handheld GPS provided by TRC was utilized to indicate unmarked boundaries of the study area.
- 3) As stated in the narrative and depicted on the mapping (Sheets 6, 7, 10, 11, and 13 of 14) of the site plans "*Delineated Resources Map Baker Road Project Franklin County, Massachusetts*", only the centerline of the intermittent streams was delineated. Centerline of a stream is not a jurisdictional boundary under 310 CMR 10.00 and the local Shutesbury Wetland Bylaw. Rather, the upper Bank of the intermittent streams should be delineated as defined under 310 CMR 10.54(2)(c) which states "*The upper boundary of a Bank is the first observable break in the slope or the mean annual flood level, whichever is lower.*"
 - a. During the April 14, 2020 site visit, observations confirmed that inland Bank had not been delineated in compliance with 310 CMR 10.54(2)(c) and the local Shutesbury Wetland Bylaw regulations. If the applicant is still requesting approval of inland Bank, as well as wetland boundaries, intermittent streams S-GR-1, S-GR-2, S-GR-3, S-GR-6, and S-GR-7 should be revisited.
 - b. Wetland indicator plant species and indicators of hydrology were observed outward from the Bank of streams. BVW along the intermittent stream channels should be delineated in accordance with 310 CMR 10.55(2) and the local Shutesbury Wetland Bylaw regulations.
- 4) Based on the site plans, streams S-GR-1, S-GR-6 and S-GR-7 do not meet the criteria for intermittent streams under the MA WPA regulations and the Town of Shutesbury, Massachusetts Regulations under the General Wetlands Protection Bylaw. According to the plans, these streams lack an upgradient wetland as required under 310 CMR 10.04 Stream, which states (**emphasis added**),

*"Stream means a body of running water, including brooks and creeks, which moves in a definite channel in the ground due to a hydraulic gradient, and which flows within, into or out of an Area Subject to Protection under M.G.L. c. 131, § 40. A portion of a stream may flow through a culvert or beneath a bridge. Such a body of running water which does not flow throughout the year (i.e., which is intermittent) is a stream **except for that portion upgradient of all bogs, swamps, wet meadows and marshes.**"*

However, based on observations made during the April 16, 2020 site visit, the above referenced stream channels are bordered by wetland and, therefore, would meet the criteria under 310 CMR 10.04 Stream. The extent of jurisdictional intermittent stream Bank under 310 CMR 10.00 should be reviewed again after further delineation efforts by TRC are completed.

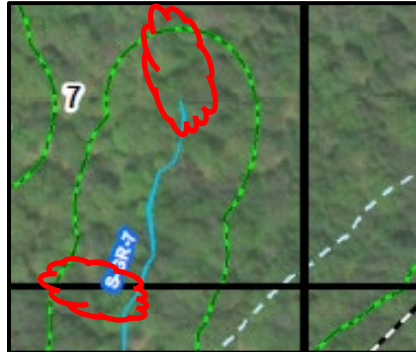
- 5) Flow between S-GR-2 and S-GR-1 was interrupted due to a clogged HDPE culvert. The majority of the flow from stream S-GR-2 was observed veering westerly along an existing woods road. Based on observations made during the site visit, the culvert appears to be new/replaced. Was a Notice of Intent filed with the Shutesbury Conservation Commission for work on the culvert that postdates the Wetlands Protection Act (1972) as well as the "Hatch" Act, Chapter 220, Acts of 1965?
- 6) Based on observed wetland indicator species [such as Hemlock (*Tsuga canadensis*), Red Maple (*Acer rubrum*), Yellow Birch (*Betula alleghaniensis*), Goldthread (*Coptis trifolia*), Dewberry (*Rubus hispidus*) and ferns (*pos. Osmundastrum spp.*)], hydric soils, and other indicators of hydrology the following adjustments should be made to accurately demarcate the wetland boundaries per 310 CMR 10.55(2) and the local Shutesbury Wetland Bylaw regulation:
 - a. W-GR-1, W-GR-2, and W-GR-3, should be adjusted outward to incorporate dominant wetland vegetation and hydrology. (Sheets 6 and 10 of 14).



- b. W-GR-4 should be adjusted outward to incorporate dominant wetland vegetation and hydrology. The wetland system extends further to the north and drains westerly, ultimately converging with stream S-GR-7. Therefore, W-GR-4 is bordering not isolated. Wetland and Bank delineation should be expanded between W-GR-4 and S-GR-7 (Sheet 7 of 14).



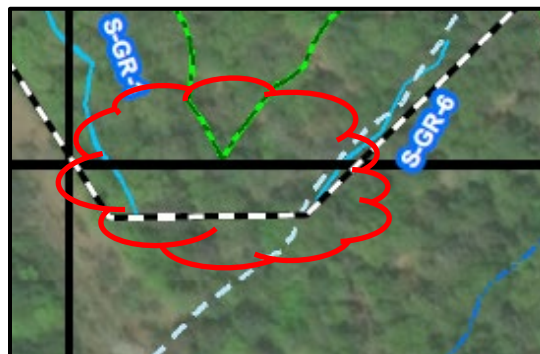
- c. Based on surface inundation, saturated soils, hydric soils and dominant wetland plant species, the delineation along stream S-GR-7 should be expanded to include both inland Bank and BVW (near flags 1 and 10). (Sheets 7 and 11 of 14)



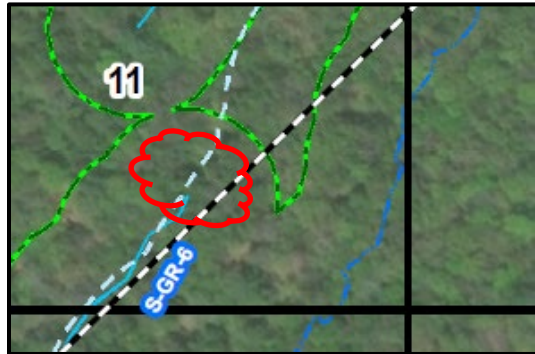
- d. Based on surface inundation, saturated soils, hydric soils and dominant wetland plant species, there is an unmapped wetland upgradient of stream S-GR-1 (Sheets 10 of 14)



- e. Based on surface inundation, saturated soils, hydric soils and dominant wetland plant species, there is an unmapped wetland between streams S-GR-1 and S-GR-6 (Sheets 11 and 13 of 14).



- f. Based on dominant wetland plant species and observed hydric soils, there is an unmapped wetland upgradient of stream W-GR-6 (Sheet 11 of 14)



- g. Based on surface inundation, saturated soils, hydric soils and dominant wetland plant species, there is an unmapped wetland along the easterly bank of Nurse Brook (at the toe of the hillslope) in the vicinity of flags 110 to 118 (Sheet 8 of 14).



- h. Bank flagging along flags 102 to 104 of S-GR-4 should be extended outward to in accordance with 310 CMR 10.54(2)(c) (Sheet 5 of 14).



- i. Based on surface inundation, saturated soils, and dominant wetland plant species, there is an unmapped wetland along the westerly bank of Nurse Brook in the vicinity of flag 10 that should be revisited (Sheet 8 of 14). Additional bordering wetlands were observed downstream. Based on GPS measurements provided by TRC during the site visit, these wetlands are greater than 100-FT away from the study area.



- j. The 200-FT Riverfront Area should project from flags 1, 2, 3, and 4 along Nurse Brook. (Sheet 8 of 14).



- k. Based on the observed break in topography, overall the Mean Annual High Water Line along Nurse Brook coincides with the bank flags. Flags 38, 39, 50 and 53 should be adjusted outward to adequate capture the MAHWL (Sheets 11 and 12 of 14).



Please note that the figures above indicate areas where more substantial adjustments should be made based on wetland indicators and stream flows visible during early spring conditions. It is recommended that the boundaries in their entirety be revisited and adjusted as need to encapsulate areas with dominant wetland vegetation, hydrology and hydric soils (wetlands), Bank and/or MAHWL.

- 7) The ANRAD narrative describes methodologies for identifying and delineating wetland resource areas under state and federal procedures. Is the applicant also seeking an Order under the Town of Shutesbury, Massachusetts General Wetlands Protection bylaw? If so, the applicant should confirm that the subject properties were inspected for resource areas as defined per the Town of Shutesbury, Massachusetts Regulations under the General Wetlands Protection Bylaw, which are more stringent than state and federal regulations.
- 8) Wetland Determination Data Forms were completed on October 22nd and 23rd 2019. The growing season in Shutesbury reportedly ends as early as mid-September. Were field indicators present to conclude whether or not the growing season had ended at the time of data collect? Several wetland indicators are dependent on the active growing season.
- 9) Vegetation data presented for data point W-GR-UPL-1 indicates the presence of hydrophytic vegetation. Under the MA WPA and its regulations *Tsuga canadensis* is a wetland indicator species and a wetland plant community is defined as 50% or more wetland indicator species.
- 10) Per the Town of Shutesbury, Massachusetts General Wetlands Protection areas subject to protection under the bylaw include:
 - a. any freshwater wetland, isolated wetland, marsh, wet meadow, bog or swamp; within 100 feet of any freshwater wetland, isolated wetland, marsh, wet meadow, bog or swamp;
 - b. any lake, river, pond or stream (whether surface or subsurface); within 100 feet of any lake, river, pond or stream (whether surface or subsurface); any land under said waters;
 - c. any land subject to flooding or inundation by groundwater, surface water, storm flowage, or within a 100-year flood plain.

For review and approval under the local bylaw, the site plans should be revised to depict the boundary of the resource areas stated above.

I trust that the above comments will assist the Commission in their review of the previously referenced ANRAD application. Please do not hesitate to contact me with any questions. It is my understanding that TRC will be returning to the site to address several of the items stated above. A second site visit between TRC and Stockman Associates LLC is anticipated.

Sincerely,



Emily Stockman, M.S., P.W.S.
Senior Scientist/Principal
Stockman Associates LLC

