



July 17, 2020

Kevin Mooney, Chairman
Avon Conservation Commission
65 East Main Street
Avon, MA 02322

Re: Abbreviated Notice of Resource Area Delineation - Peer Review
Map B3 Block 1 Lots 9, 10 & 11
Map B4 Block 3 Lots 1 & 2
Map B4 Block 4 Lots 4, 5, & 6
Portion of Map B4 Block 2 Lots 1 & 2
Antone Road
Avon, Massachusetts
DEP File No. 099-0178

Mr. Mooney and Members of the Commission:

BETA Group, Inc. (BETA) has reviewed the Abbreviated Notice of Resource Area Delineation (ANRAD) and supporting documentation for the property located off Antone Road, in Avon, Massachusetts and identified by the Avon Assessor's Maps listed above. BETA's review scope included an assessment of resource area boundaries as well as an evaluation of the supporting documentation submitted by the Applicant relative to the Massachusetts Wetlands Protection Act Regulations (WPA) and the Town of Avon Wetlands Protection By-law.

REVIEWED INFORMATION

- Plan entitled ***Plan to Accompany ANRAD Filing for Antone Road in Avon, Massachusetts*** dated March 13, 2020; prepared by Outback Engineering Inc.; signed and stamped by Paul J. Babineau, MA PE #45915
- ***Plan to Accompany ANRAD Filing for Antone Road in Avon, Massachusetts, Revised June 26, 2020***.ANRAD Application - Assessor's Maps B3 Block 1 Lots 9, 10 & 11, Map B4 Block 3 Lots 1 & 2, Map B4 Block 4 Lots 4, 5 & 6, Portion of Map B4 Block 2 Lots 1 & 2, Avon, Massachusetts; prepared by Outback Engineering Inc.; dated March 27, 2020.
- MassGIS database, OLIVER, was reviewed to identify critical areas on or within proximity to the Site. Table 1 below lists selected environmentally critical categories on the Site.

Table 1. Selected MassGIS Environmental Data Layers

Mapped Resource on or Within Proximity to Site	Yes	No
Area of Critical Environmental Concern		✓
NHESP Certified Vernal Pool		✓
NHESP Potential Vernal Pool		✓
NHESP Estimated Habitat of Rare Wildlife		✓
NHESP Priority Habitat of Rare Species		✓
Outstanding Resource Waters	✓	
FEMA Flood Zones		✓
Surface Water Protection Area	✓	
Interim Wellhead Protection Area		✓
Zone II Wellhead Protection Area		✓
Wild and Scenic River		✓

Source: MassGIS

WETLAND RESOURCE AREAS

The wetland resource areas protected under the WPA and the Avon Wetlands Protection By-Law identified in the ANRAD included one Bordering Vegetated Wetland (BVW); one Isolated Vegetated Wetland (IVW), Bank of Poned Area within BVW, and Bank to Intermittent Streams. BETA conducted a Site inspection with Nicole Hayes of Goddard Consulting LLC on June 8 and June 12, 2020 to evaluate the delineated inland wetland resource area boundaries. Based on BETA’s review of the ANRAD submittal, Site visits, review of publicly available maps and information, the following summarizes BETA’s findings.

Bordering Vegetated Wetland (BVW) and Isolated Vegetated Wetland (IVW)

During the Site visit BETA found the two separate site wetlands, IVW Series AA and BVW Series GC, to be one large wetland system connected by hydrology and hydrophytic vegetation. Delineated wetland boundaries were found to be downslope of hydrologic indicators in a number of locations and additional flags were hung by Goddard to encompass all areas defined as wetlands by the WPA. As a result of the wetland boundary adjustments Goddard extended the size of both wetlands and combined them into one larger BVW. Review of the revised ANRAD Plan, dated June 26, 2020, BETA has found the extent of the BVW and associated 100-foot Buffer Zone to be accurate. Table 2 below identifies the locations of adjustments to wetland boundary flags made in the field.

Bank to Intermittent Streams

Banks of three intermittent stream channels, Series SC/SD, SE/SF and SA,R/SB were reviewed and found to be accurate in the field and on the Plans. Stream SA,R/SB, located along the southern portion of the Site, was observed flowing during both Site visits. An USGS Streamstat analysis was performed for the



Stream SA,R/SB and it was determined to be intermittent based on the drainage area of less than ½ square mile. The Streamstat tool identified the drainage area to be 0.23 square miles with 0 square mile per mile of stratified drift per until of stream length, see the Streamstat Report attached.

Critical Areas- Outstanding Resource Water (ORW), Zone A

All three streams and associated BVW contribute to or directly flow to the Brockton Reservoir, a public water supply, and located within Zone A and Zone B Surface Water Supply Protection Area and Outstanding Resource Waters (ORWs) under 314 CMR 4.00, Massachusetts Surface Water Quality Standards. The areas within 200 feet of the streams are subject to the Massachusetts Drinking Water Regulations (310 CMR 22) and Massachusetts Surface Water Quality Standards.

Under 314 CMR 9.00 dredging in, or any activity resulting in any discharge of dredged or fill material to any ORW, streams and associated BVWs require authorization under 401 Water Quality Certification.

Table 2: Resource Area Review Summary

Resource Area	Location	Comment
IVW (now BVW)	WF AA Series Flags WF AA-1 through WF AA-33	BETA and Goddard connected IVW AA to BVW GC at the following flag locations: AA-20 connects to GC-86, AA-25 connects to GC-88R, AA-11R connects to GC-51 and AA-12 to GC -53.
		BETA and Goddard enlarged AA Series wetland at the following locations: WF AA-21 through AA-23, AA-31 through AA-3, AA-31 through AA-33
BVW	WF GC Series	BETA and Goddard connected BVW Series GC to IVW Series AA and enlarged BVW GC at the following locations: Flag GC-33 through GC-34, and GC-77 through GC-83.
Ponded area within BVW	Flag Series S-1 through S-13	BETA found the boundary of the ponded area to be accurate.
Bank to Intermittent Stream	Flag Series SC1 to SC8/SD1 to SD8-	BETA found the Bank boundary of this intermittent stream to be accurate.
Bank to Intermittent Stream	Flag Series SE-0 to SE-13/SF-1 to SF-13	BETA found the Bank boundary of this intermittent stream to be accurate.
Bank to Intermittent Stream	Flag Series SA1 to SA12, R-39 to R-55SA ties to SA-12/SB1 to SB13	BETA found the Bank boundary of this intermittent stream to be accurate. BETA noted the stream was flowing during both Site visits.

Findings

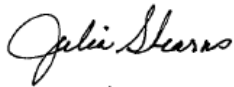
The Site Plan, Revised June 26, 2020, has been updated showing changes to the wetland boundaries, including connecting IVW Series AA to BVW Series CG, establishing one large BVW with the accurate associated 100-foot Buffer Zone. BETA found no evidence of vernal pool species or vernal pool habitat within the site and review of publicly available data, MassGIS, no potential vernal pools or certified vernal pools exist on the Site.

BETA did not review or confirm resource areas in the southern portion of the Site, south of Stream SA,R/SB flags SB10-2 and R-40 to R-55. It should be noted that this portion of the Site is not included in this ANRAD review and therefore should be specifically excluded in the Order of Resource Area Delineation

If we can be of any further assistance regarding this matter, please contact us at our office.

Very truly yours,

BETA Group, Inc.



Julia Stearns
Project Scientist



Marta J. Nover
Vice President – Environmental Sciences

cc: Goddard Consulting LLC

Attachments:
USGS StreamStat Report

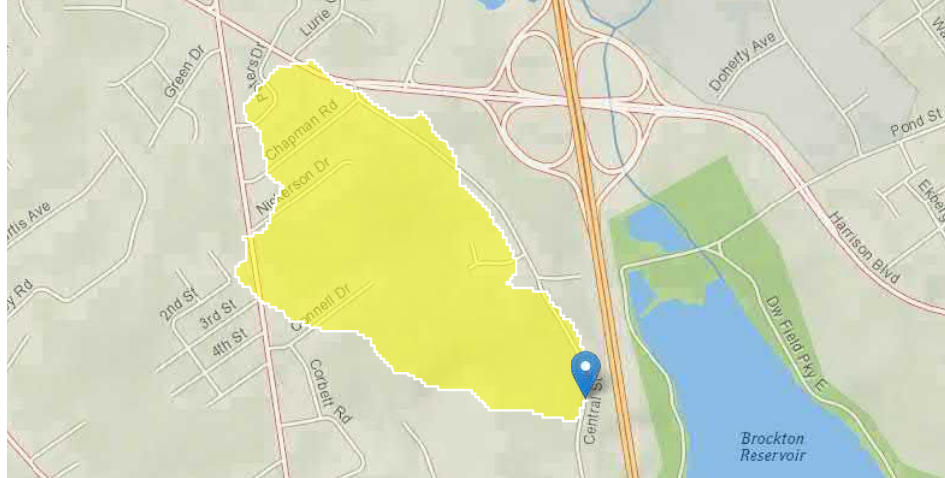
Job No: 7183

A study area is needed before viewing the report

StreamStats Report

Region ID:
Workspace ID:
Clicked Point (Latitude, Longitude):
Time:

MA
MA20200717172519277000
42.11744, -71.06187
2020-07-17 13:25:35 -0400



Basin Characteristics			
Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.23	square miles
ELEV	Mean Basin Elevation	249	feet
LC06STOR	Percentage of water bodies and wetlands determined from the NLCD 2006	4.52	percent
DRFTPERSTR	Area of stratified drift per unit of stream length	0	square mile per mile
MAREGION	Region of Massachusetts 0 for Eastern 1 for Western	0	dimensionless
BSLDEM250	Mean basin slope computed from 1:250K DEM	0.193	percent

General Disclaimers
Parameter values have been edited, computed flows may not apply.
Upstream regulation was checked for this watershed.
This watershed is percent regulated, computed flows may not apply.
This watershed has been edited, computed flows may not apply.
The resulting delineations are derived from digital elevation data and storm drain vectors that have been processed to enforce drainage through storm drains.
Urban regression equations for peak flows were not developed using streamgages which incorporate storm drain delineations and therefore should be used with caution.