

ECR

Environmental Consulting & Restoration, LLC



STREAM REVIEW MEMO

TO: The Winsor at Millbrook Village LLC
FROM: Brad Holmes
DATE: November 29, 2023
RE: 50 Railroad Avenue, Duxbury

Environmental Consulting & Restoration, LLC (ECR) is submitting this Stream Review Memo to support the intermittent status of the stream on and near 50 Railroad Avenue in Duxbury (the Site). ECR previously reviewed this intermittent stream in 2017 as part of an ANRAD application submitted for the property located at 136-139 Alden Street (Cooper Hill subdivision) located to the southwest of 50 Railroad Avenue. This stream was reviewed during the ANRAD review process resulting in the issuance of an ORAD confirming intermittent status of the stream. For more information, please refer to the ORAD DEP File # SE18-1786 issued for the Cooper Hill subdivision.

ECR has reviewed the Massachusetts Streamstats Program to reveal the following:

- 50 Railroad Avenue has a calculated watershed area of 0.09 sq. miles. 50 Railroad Area is at/near the headwaters or beginning of the stream.
- Cooper Hill subdivision has a calculated watershed area of 0.11 sq. miles. Cooper Hill subdivision is located to the southwest of the site. The stream flows from north to south so the Cooper Hill subdivision is located downstream of 50 Railroad Avenue.

If the stream at the Cooper Hill subdivision is intermittent, then the portion of the stream located upgradient of the Cooper Hill subdivision cannot be greater than intermittent. Meaning, an intermittent stream is not possible to turn perennial when moving upstream. Moving upstream means the watershed area supporting the stream is smaller (see calculations above). Please note that for a stream to be considered perennial, a watershed area of at least 0.5 sq. miles is needed per 310 CMR 10.58. The watershed calculations at both locations are significantly under the 0.5 sq. mile threshold. Please refer to the attached Streamstats Maps for more information.

ECR has reviewed 11/20/23 Notice of Intent Review letter prepared by Wetland Strategies, Inc. (WSI). WSI references another stream located to the west of the stream referenced above. From ECR's past wetland delineations at and near this site, ECR remembers that the wetland areas contain the remains of historic cranberry bog operations. These historic operations resulted in ditching for irrigation, etc. The historic cranberry bog is evident in historic topographic maps and aerial imagery. These manmade ditches/canals do not have Riverfront Areas. Additionally, this unmapped stream is not located on available U.S.G.S. maps, Massachusetts Streamstats Program, etc. This unmapped stream, if there is evidence of flow, should be classified as an intermittent stream.

In summary, there are no perennial streams or associated Riverfront Areas on or near this site. Upon review of this memo, please contact me at (617) 529 – 3792 or brad@ecrwetlands.com with any questions or requests for additional information.

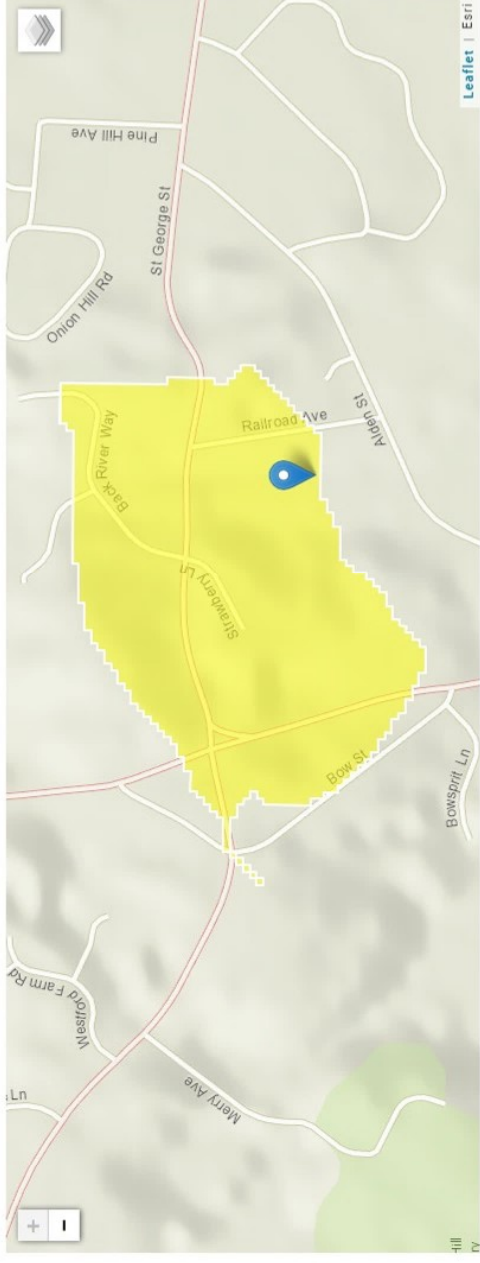
Thank you,
Brad Holmes, Professional Wetland Scientist #1464
Manager

StreamStats Report

50 Railroad Avenue

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

MA
MA20231122162940456000
42.04725, -70.68689
2023-11-22 11:30:02 -0500



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Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.0937	square miles

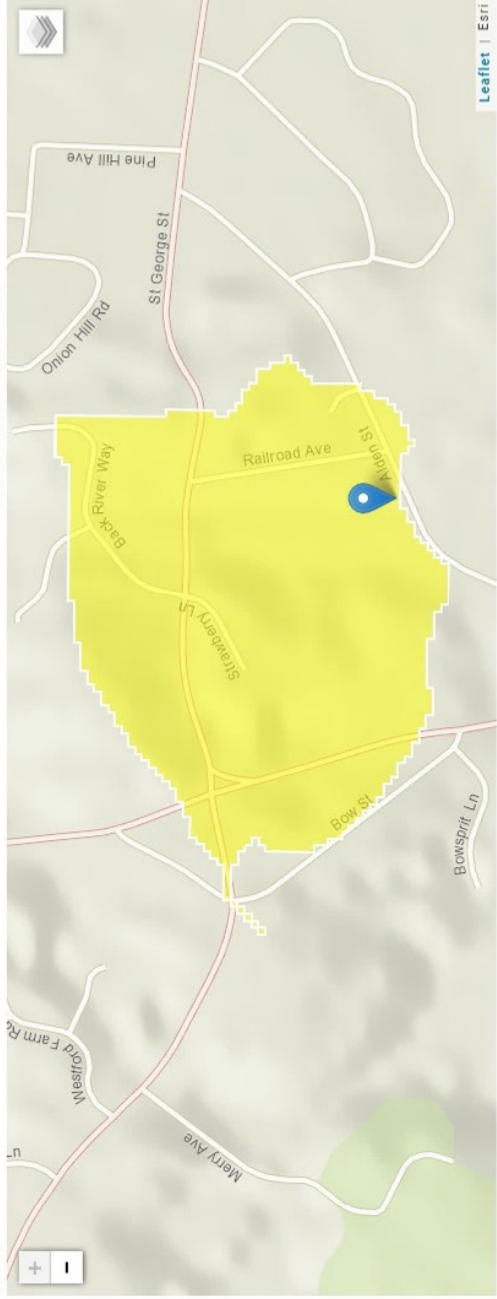


StreamStats Report

136-139 Alden Street

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

MA
MA20231122163529625000
42.04619, -70.68664
2023-11-22 11:35:50 -0500



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> Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.11	square miles

