Ethopit



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June 6, 2024

#### **VIA HAND-DELIVERY**

Town of East Lyme Zoning Commission Town Hall 108 Pennsylvania Avenue East Lyme, CT 06357-1510

Attn.: Ms. Anne Thurlow, Chairperson

Re: Conceptual Site Plan Review: Summary of Findings

25-unit, Age-restricted Residential Development 91 Boston Post Road, East Lyme, Connecticut

REMA Job No.: 24-2709-ELY20

Dear Chairperson Thurlow and Commission members:

At the request of the applicant, Ms. Kristne Clarke, P.E., for the above-referenced residential development application, REMA ECOLOGICAL SERVICES, LLC (REMA) has reviewed a conceptual plan, and a drainage report, prepared by May Engineering, LLC, dated June 4 and 5, 2024, respectively.

As part of our review, we visited the subject site on April 27<sup>th</sup>, and June 3<sup>rd</sup>, 2024 (see attached annotated photos, and Figure A). Prior to the fieldwork, REMA conducted an initial desktop study and analyses of existing secondary-source data, including, but not limited to, U.S. Geological Survey (USGS) topographic quadrangle maps, U.S. Department of Agriculture/Natural Resources Conservation Service (USDA/NRCS) Soil Survey data, most recent color aerial photographs (leaf-off), and other data layers available from the Connecticut Environmental Conditions Online (CTECO). We also accessed the Town of East Lyme's online GIS viewers, to glean any information, over and above what was available from the aforementioned sources.

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Finally, we reviewed a letter from the Connecticut Department of Energy & Environmental Protection's Natural Diversity Database, dated February 13, 2024, in which 3 "listed" species were noted as potentially occurring on the subject site: Northern long-eared bat, wood turtle, and smooth green snake.

#### Our findings are as follows:

- 1. The subject site is associated with a significant natural resource, namely Latimer Brook (see attached USGS StreamStats)
- 2. The eastern section of the site contains steep slopes and bedrock-controlled topography, while the central and western portions have relatively gentle slopes down to Latimer Brook.
- 3. Much of the subject site is forested, with the exception of a roughly 1.2 acre open grassy field, to the west and downgradient of an existing house structure.
- 4. A roughly 0.45 acre, shallow dugout pond, is located in the northwestern section of the subject site, 25 to 30 feet easterly of Latimer Brook.
- 5. Forested wetlands are associated with the Latimer Brook riparian area. These are somewhat extensive within the southwestern section of the subject site.
- 6. Based on review of archival aerial photographs (e.g., flight year 1965), the lower nearly level portion of the site's forested uplands was in agriculture for many decades (i.e., hayfield, and/or pasture). The invasive Japanese barberry, and to a lesser extent, multiflora rose, dominates most of the understory.
- 7. In reviewing the plan and drainage report, it is our professional opinion that the proposal is sensitive to the preservation and impact minimization of the site's natural and ecological resources, including potential "listed" species.
- 8. The proposed "development footprint" is concentrated within areas that are already disturbed, or which do not contain sensitive or significant resources.
- 9. The proposed conceptual stormwater management plan utilizes low-impact development practices, such a rain gardens and an infiltration trench, which promote infiltration and exceptional stormwater renovation. As a result, impacts to the water quality of surface waters, including that of Latimer Brook, are not expected.

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- 10. The location of the proposed septic system leaching fields are located several hundred feet from Latimer Brook, its wetlands, and the on-site shallow pond. We are confident that these can be designed so as to not impact the water quality of the downgradient resources, including Latimer Brook.
- 11. In regard to "listed" species, our initial surveys indicated that the available habitat is "suboptimal" for both of the Special Concern wood turtle and smooth green snake, as well ribbon snake, which could also occur here. Nevertheless, the proposed development is not encroaching upon the potential habitats for these species.
- 12. We note that there are many opportunities for habitat enhancement at the subject site through invasive plant removal, conservation plantings, and the formulation of the long-term management plan, especially for the open meadow, the shallow pond, and Latimer Brook.

Please feel free to contact us if you have any questions.

Respectfully submitted,

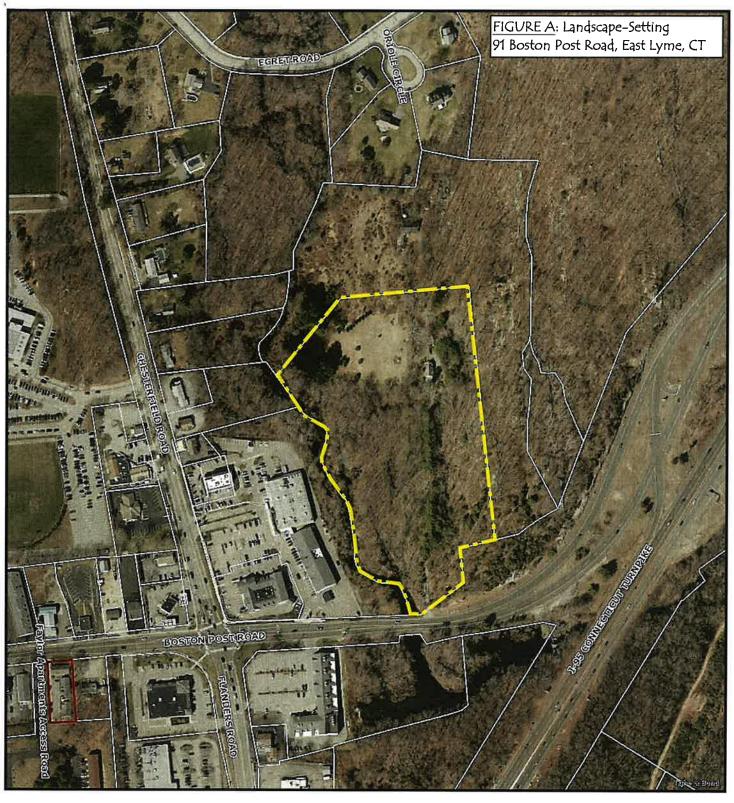
REMA ECOLOGICAL SERVICES, LLC

George T. Logan, MS, PWS, CSE

Certified Professional Wetland Scientist,

Registered Soil Scientist, Certified Senior Ecologist

Attachments: Figures A; Photos 1 to 14; USGS StreamStats



6/5/2024 1:56:04 PM

Scale: 1"=300'

Scale is approximate

The information depicted on this map is for planning purposes only. It is not adequate for legal boundary definition, regulatory interpretation, or parcel-level analyses.





REMA

SITE/LOCATION: 91 Boston Post Road

INVESTIGATOR(S):

East Lyme, CT

George T. Logan, MS, PWS, CSE

REMA JOB NO.:

24-2709-ELY20

ANNOTATED PHOTO LOG

1

**DATE:** April 27, 2024

FACING: SOUTHERLY

PHOTO NO.:

Comments: Moderately well drained uplands easterly of Latimer Brook; post-agricultral red maple dominated forest; not

Japanese barberry infestation





PHOTO NO.: 2

Comments: View of Latimer
Brook from the east bank; note

commercial center in background REMA

SITE/LOCATION:

91 Boston Post Road East Lyme, CT

REMA JOB NO.:

24-2709-ELY20

**ANNOTATED PHOTO LOG** 

INVESTIGATOR(S):

George T. Logan, MS, PWS, CSE

PHOTO NO.:

3

April 27, 2024 **DATE:** 

**SOUTHWESTERLY FACING:** 

> Comments: Latimer Brook as seen from eastern bank, just off-

site to the north



April 27, 2024 DATE: **FACING: SOUTHWESTERLY** Brook in-stream substrate

PHOTO NO.: 4 **Comments:** Close-up of Latimer

(gravel and stone)



SITE/LOCATION: 9

INVESTIGATOR(S):

91 Boston Post Road

East Lyme, CT

REMA JOB NO.:

24-2709-ELY20

ANNOTATED PHOTO LOG

**DATE:** April 27, 2024

FACING:

**WESTERLY** 

George T. Logan, MS, PWS, CSE

PHOTO NO.:

5

Comments: View of maintained moist meadow from the slope at the existing house structure



DATE: April 27, 2024 FACING: SOUTHWESTERLY

PHOTO NO.:

6

Comments: Dug-out shallow pond within northwestern section of site

**►** REMA INVESTIGATOR(S):

SITE/LOCATION:

91 Boston Post Road

George T. Logan, MS, PWS, CSE

East Lyme, CT

**REMA** JOB NO.:

24-2709-ELY20

**ANNOTATED PHOTO LOG** 

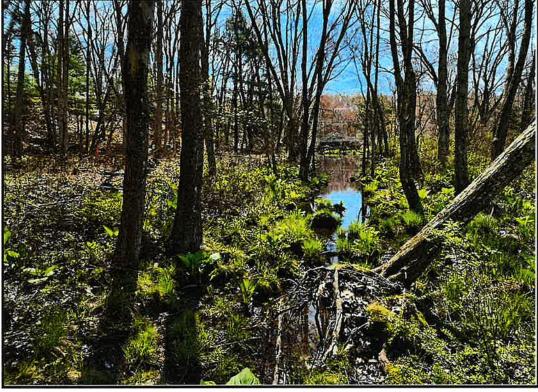
7

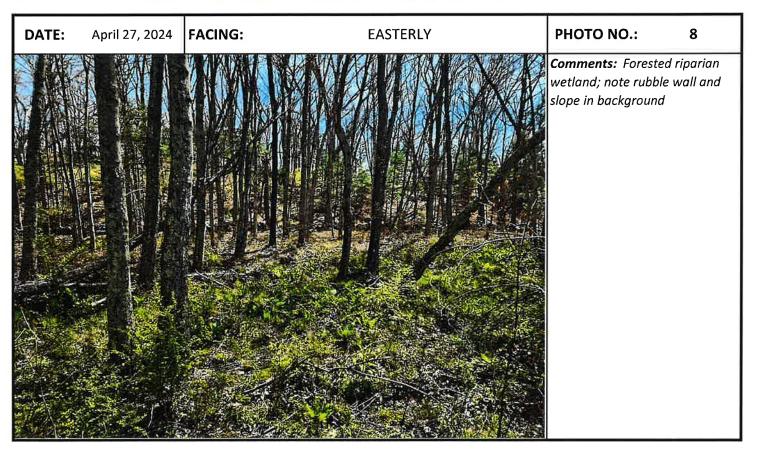
April 27, 2024 DATE:

**SOUTHERLY FACING:** 

PHOTO NO.:

**Comments:** Flooplain forested wetland associated with Latimer Brook; note box culverts under Boston Post Road in the far background





REMA

SITE/LOCATION:

INVESTIGATOR(S):

91 Boston Post Road

East Lyme, CT

George T. Logan, MS, PWS, CSE

JOB NO.: 24-2709-ELY20

**REMA** 

**ANNOTATED PHOTO LOG** 

DATE: June 3, 2024 **FACING:** 

**SOUTHEASTERLY** 

PHOTO NO.:

9

10

Comments: Flooplain forested upland associated with Latimer Brook 100-year floodplain



DATE: June 3, 2024 **FACING: NORTHERLY** PHOTO NO.: Comments: Latimer Brook; upstream view

SITE/LOCATION: 91 Boston Post Road **REMA** REMA **ANNOTATED** East Lyme, CT JOB NO.: **PHOTO LOG** 24-2709-ELY20 INVESTIGATOR(S): George T. Logan, MS, PWS, CSE DATE: June 3, 2024 **FACING:** SOUTHEASTERLY PHOTO NO.: 11



**Comments:** Moist meadow below existing house structure



**S**REM∆

**DATE:** 

SITE/LOCATION: 91 Boston Post Road

East Lyme, CT

George T. Logan, MS, PWS, CSE

**REMA** JOB NO.:

24-2709-ELY20

**ANNOTATED PHOTO LOG** 

INVESTIGATOR(S): June 3, 2024

**SOUTHEASTERLY FACING:** 

**PHOTO NO.:** 

13

Comments: Close-up of dug-out shallow pond



June 3, 2024 DATE: **FACING: NORTHERLY** PHOTO NO.: 14 Comments: Latimer Brook, just upstream of box culvert under Boston Bost Road (upstream view)

# StreamStats Report - Latimer Brook

Region ID: CT

Workspace ID: CT20240606195529896000

Clicked Point (Latitude, Longitude): 41.36654, -72.20749

Time: 2024-06-06 15:55:49 -0400



Collapse All ■

### Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	17.2	square miles
LC11DEV	Percentage of developed (urban) land from NLCD 2011 classes 21-24	9.37	percent
LC11IMP	Average percentage of impervious area determined from NLCD 2011 impervious dataset	1.99	percent
MAPM	Mean Annual Precip Basin Average	50.27	inches

USGS Data Disclaimer: Unless otherwise stated, all data, metadata and related materials are considered to satisfy the quality standards relative to the purpose for which the data were collected. Although these data and associated metadata have been reviewed for accuracy and completeness and approved for release by the U.S. Geological Survey (USGS), no warranty expressed or implied is made regarding the display or utility of the data for other purposes, nor on all computer systems, nor shall the act of distribution constitute any such warranty.

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Application Version: 4.20.1

StreamStats Services Version: 1.2.22

NSS Services Version: 2.2.1