

Mianus River Cold Water Habitat Improvement Project

Town of Stamford, CT

Location: 41.088811; -73.585284



Prepared by:

Trout Unlimited, Inc.

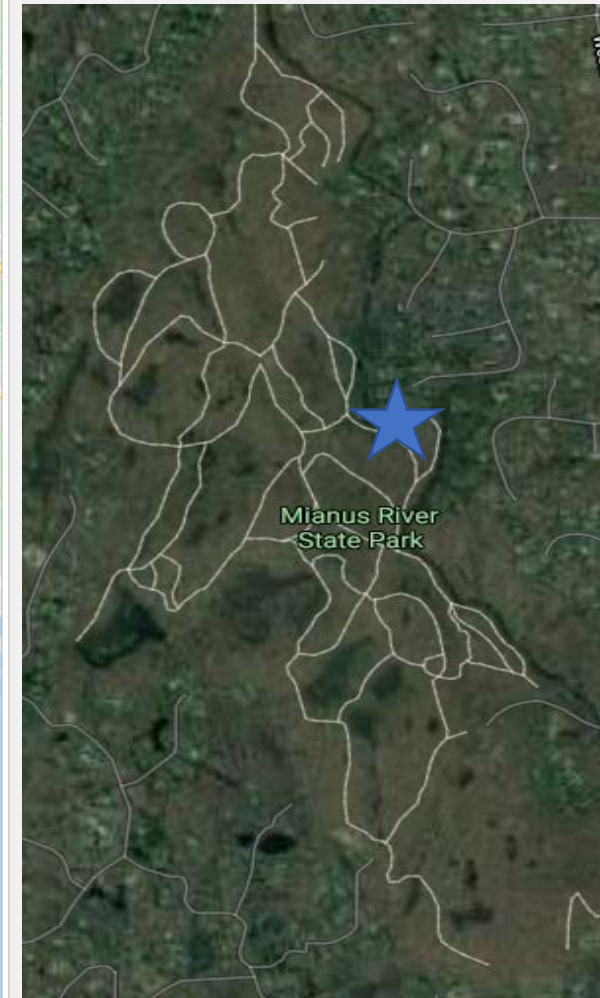
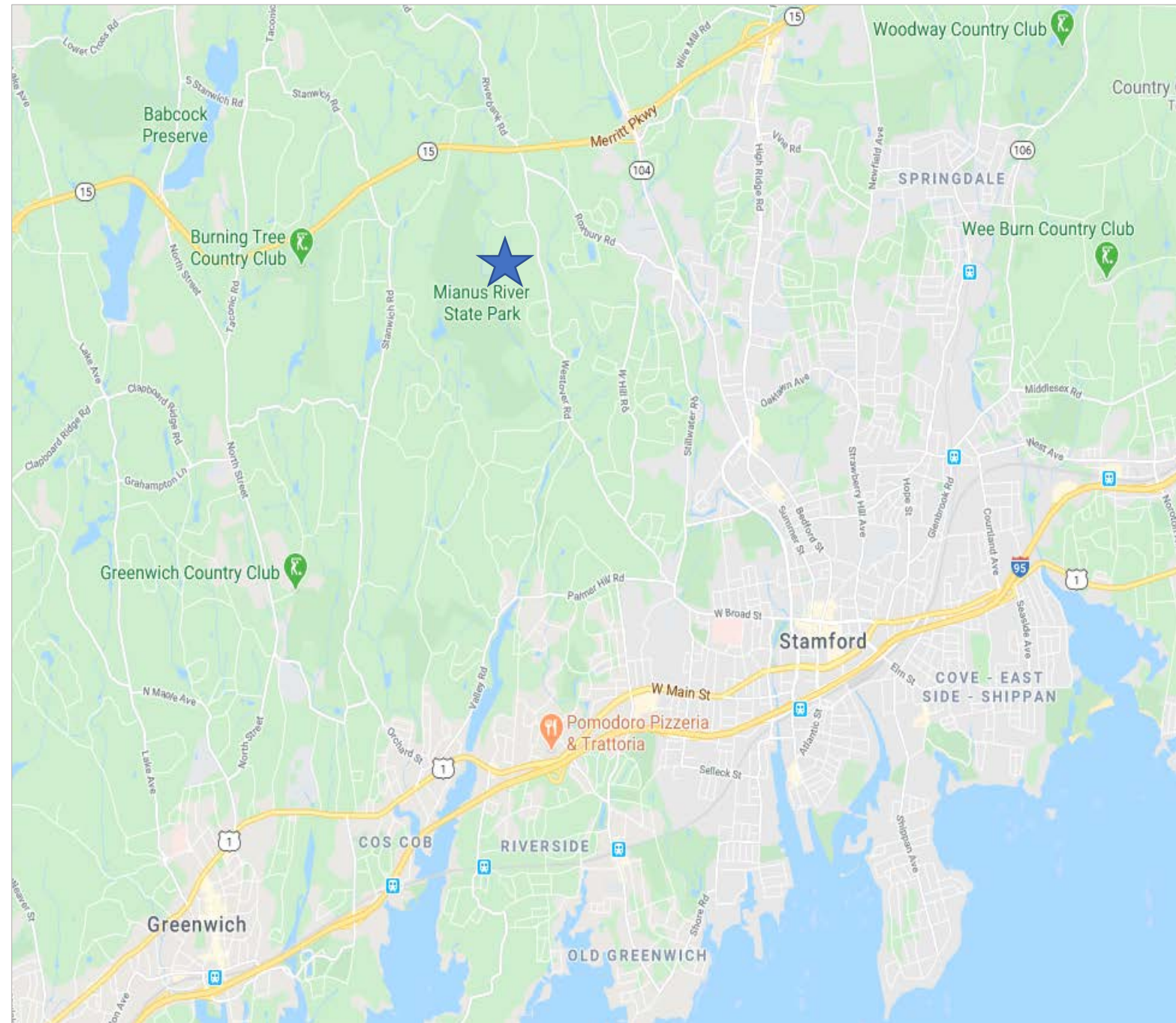
Cover Sheet

Mianus River Project

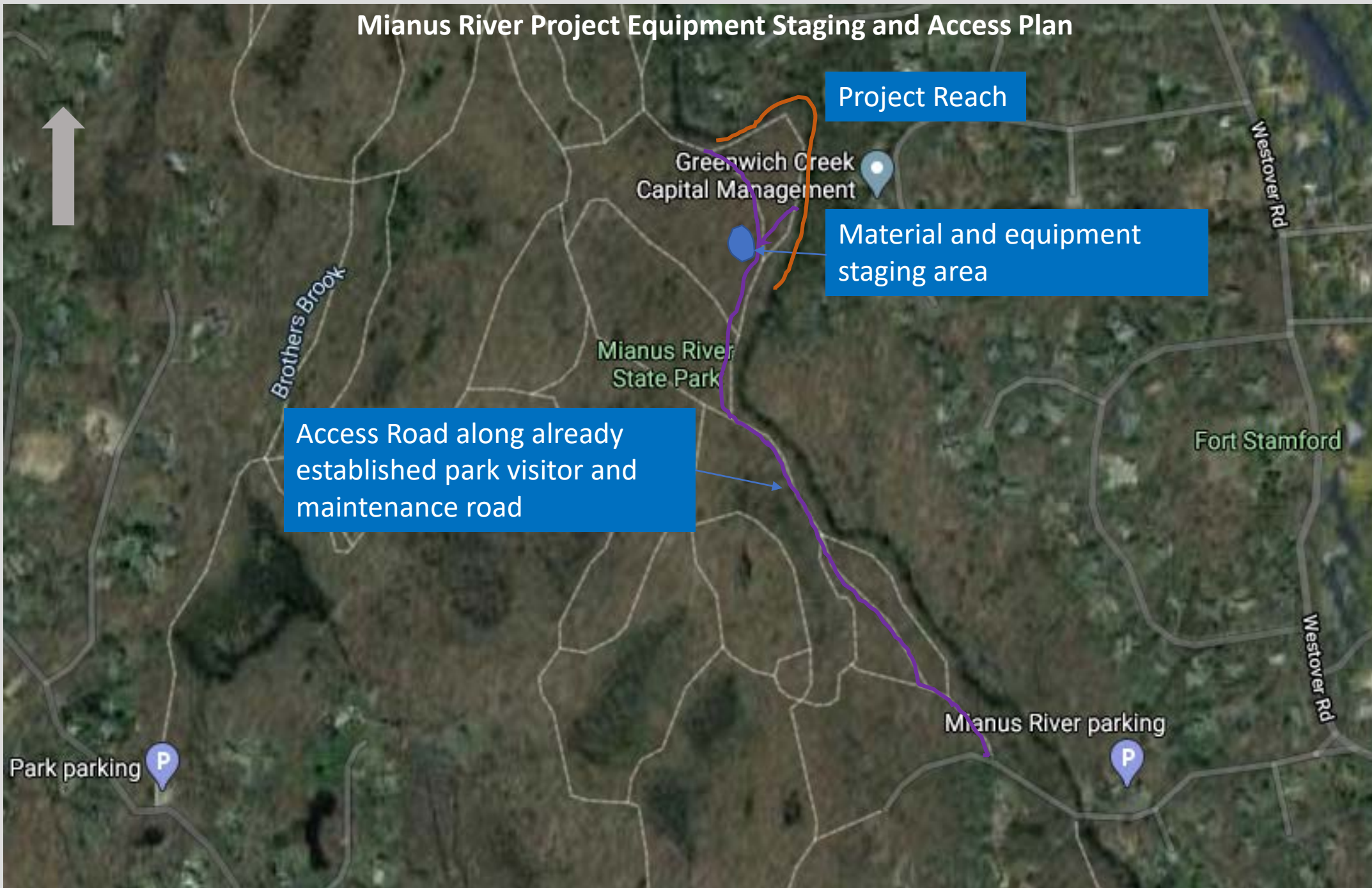
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May 20, 2020

Page 1 of 11



Mianus River Project Equipment Staging and Access Plan



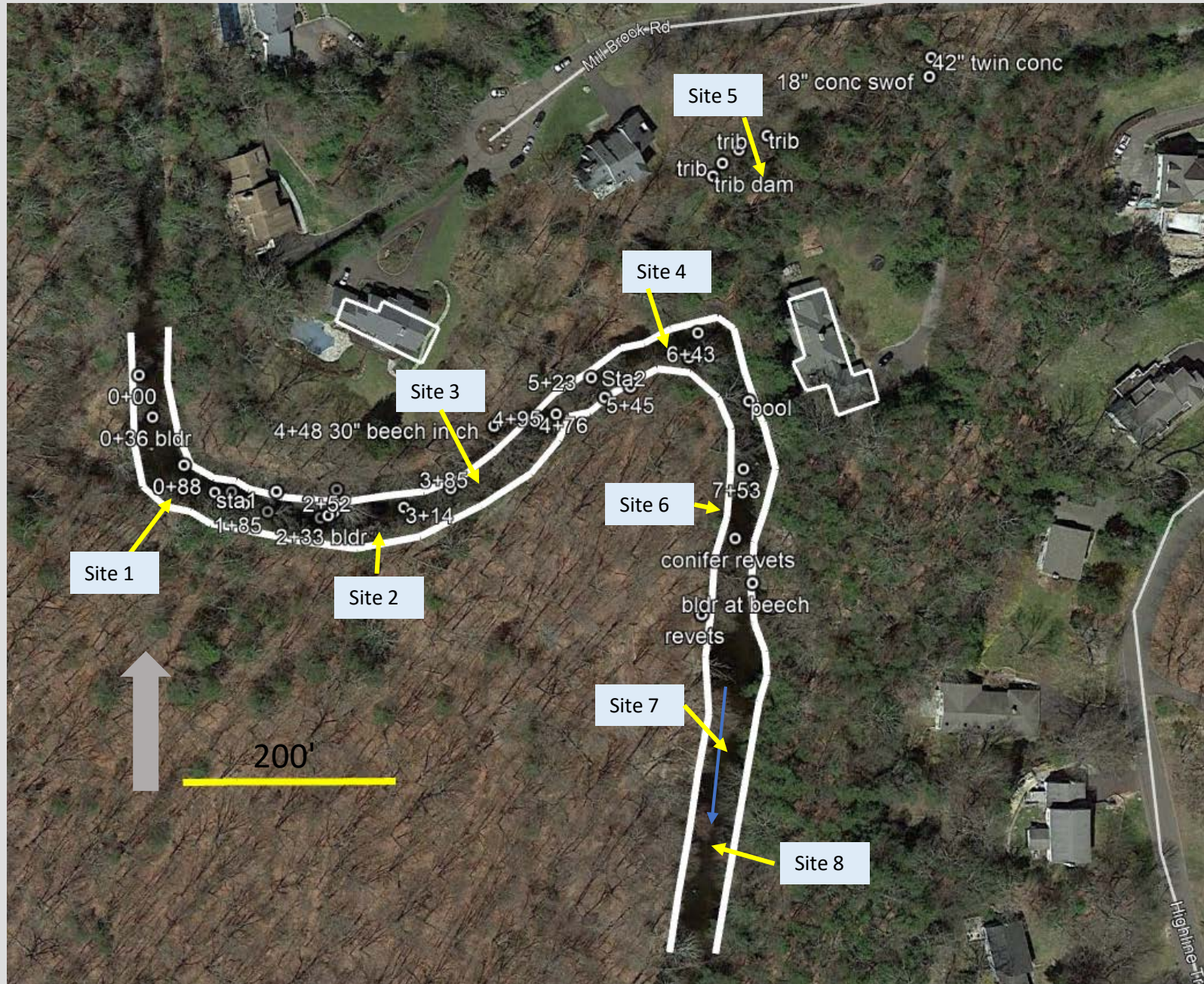
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Site Access

Mianus
River
Project

Town of
Stamford, CT

Mianus River Project Restoration Plan



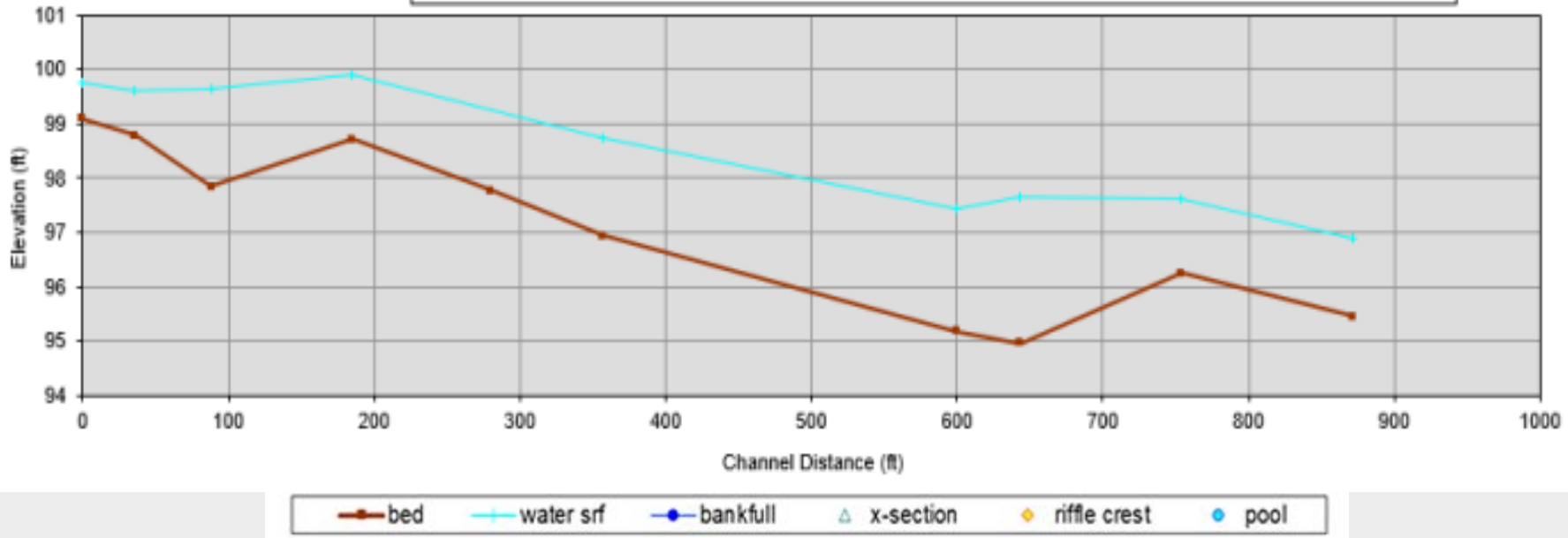
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Aerial Survey
Plan View

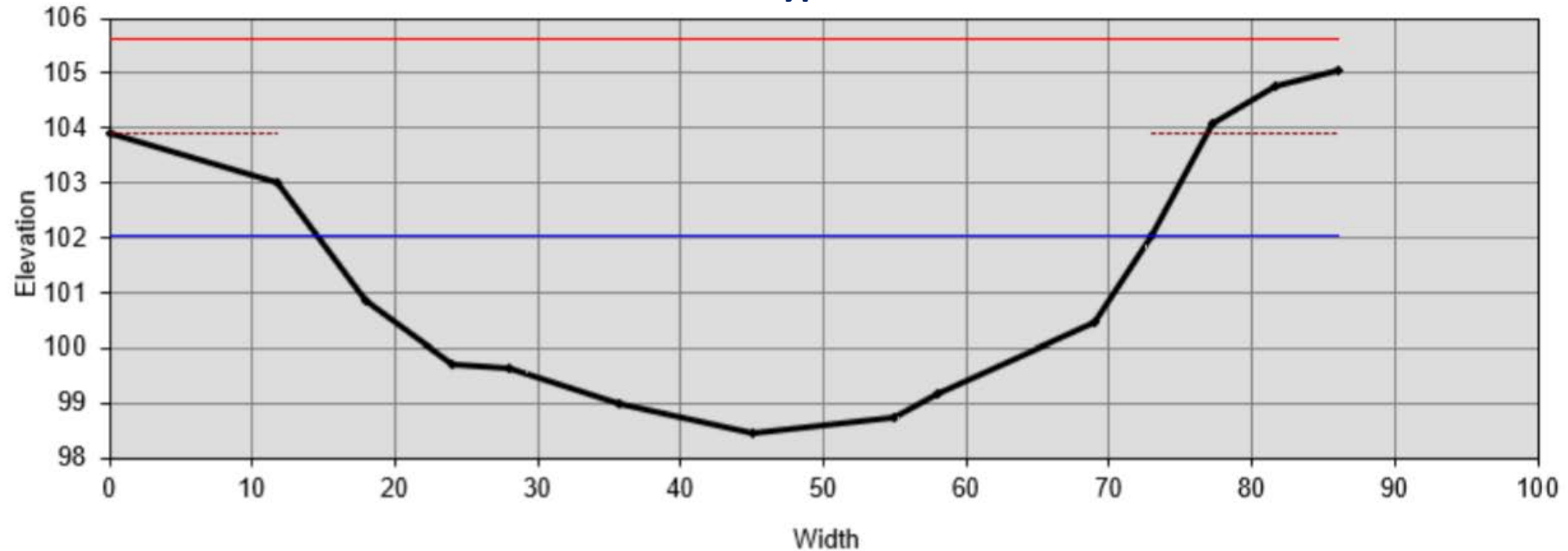
Mianus River
Restoration
Project

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CT

Mianus River Longitudinal Profile



Mianus River Typical Cross-section



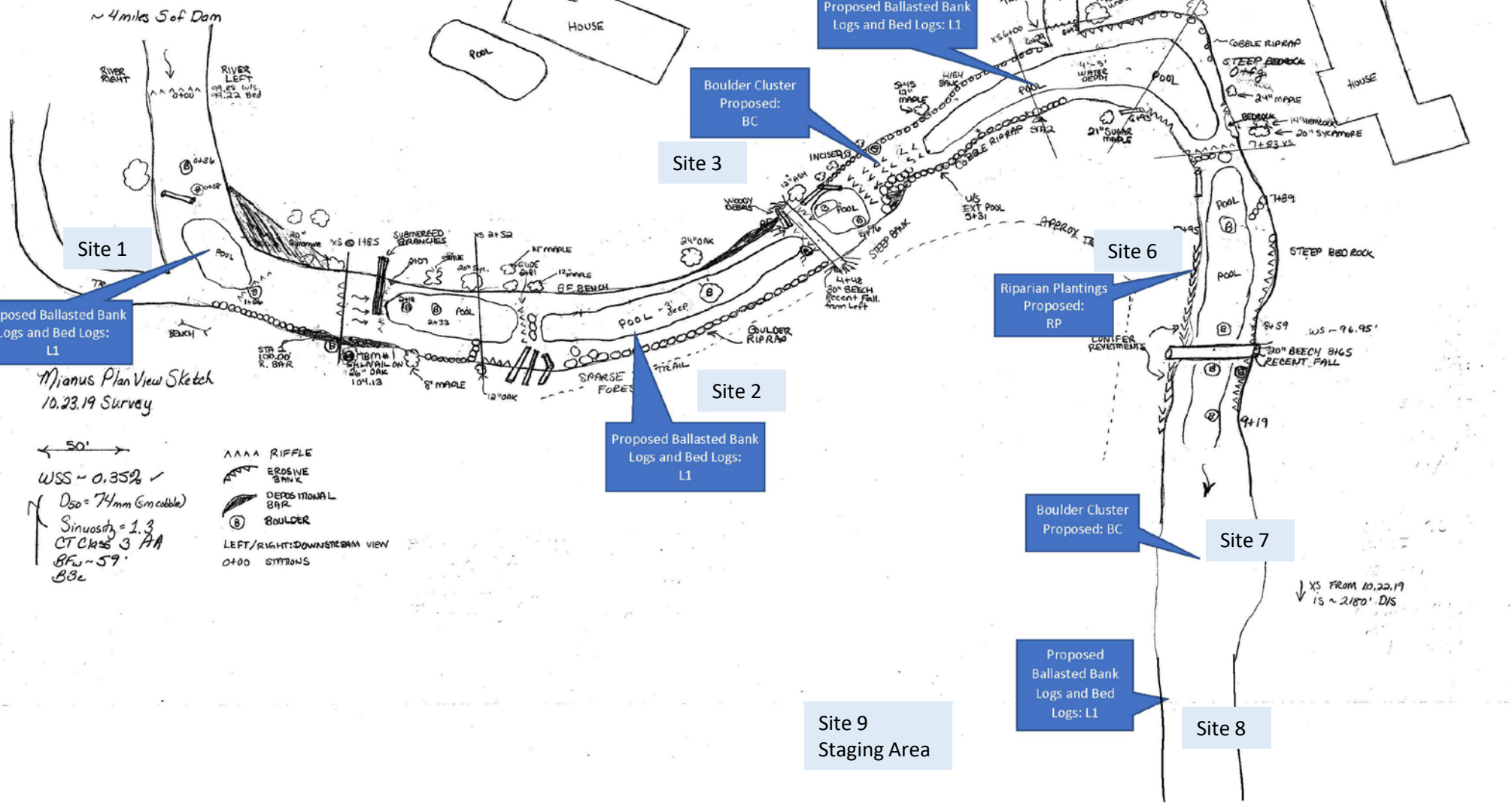
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Mianus River Site 1 Proposed Items:

- Improve wood habitat in stream for refuge and cover.
- Add Boulder Clusters to diversify flow path.
- Incorporate log steps in tributary to reduce erosion and delivery of fines to main stem.
- Complete riparian plantings in the revetment areas where bars have been created.



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Proposed
Restoration
Plan

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Site 1 Bed and Bank Ballasted Logs



Site 4 Bed and Bank Ballasted Logs



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Site Photos

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Site 2 Bed and Bank Ballasted Logs



Site 5 Tributary Log Vanes



Site 7 Boulder Cluster



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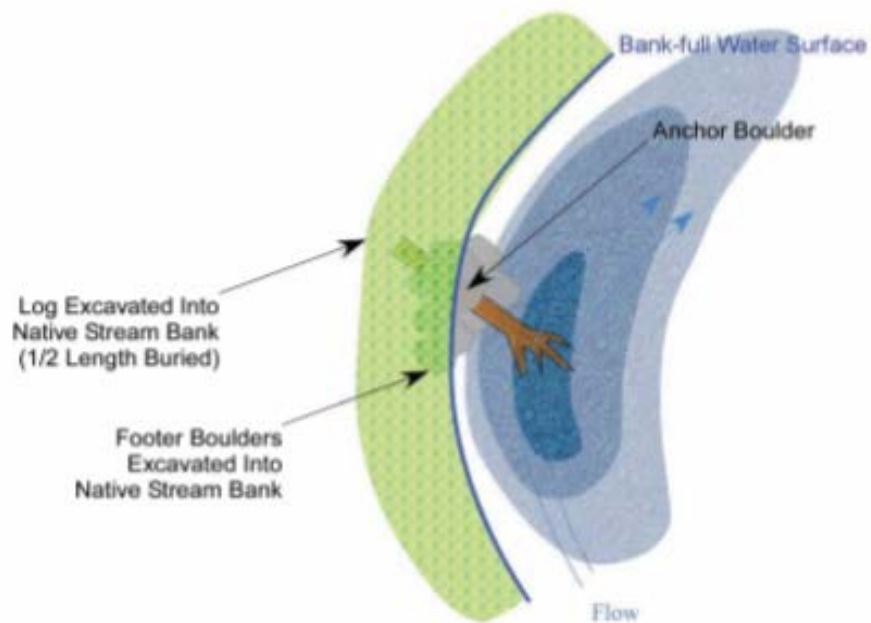
Typical
Treatment
Log Ballast

Mianus River
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Project

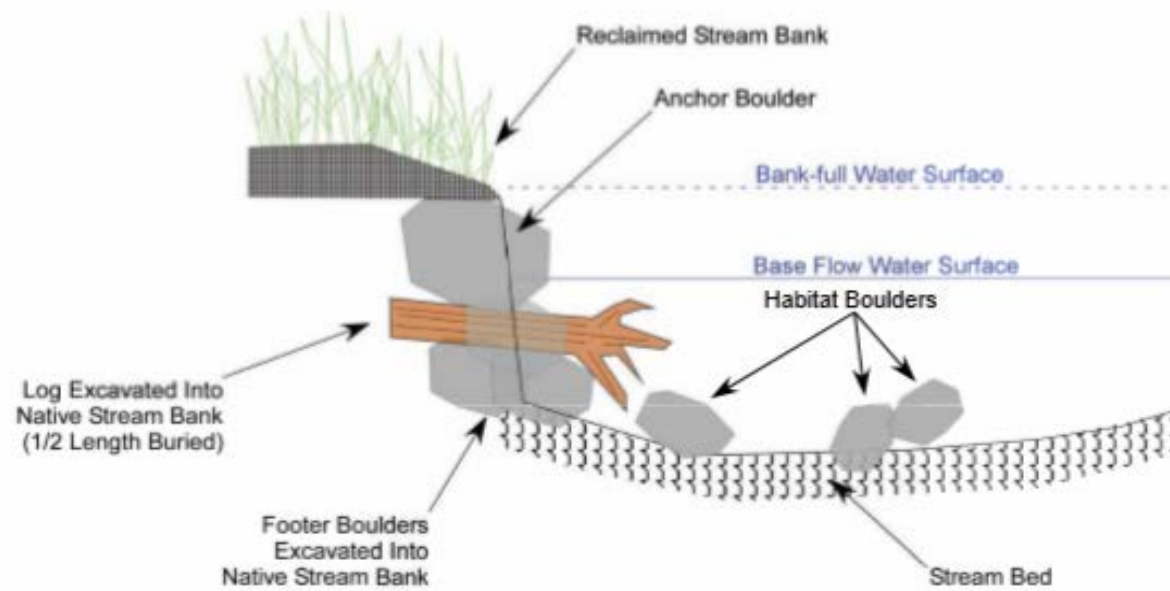
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Page 7 of 11

Ballasted Bank and Bed Log Treatment Typical



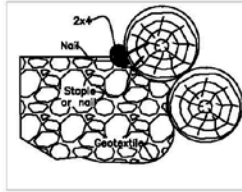
Natural wood debris filled pool.



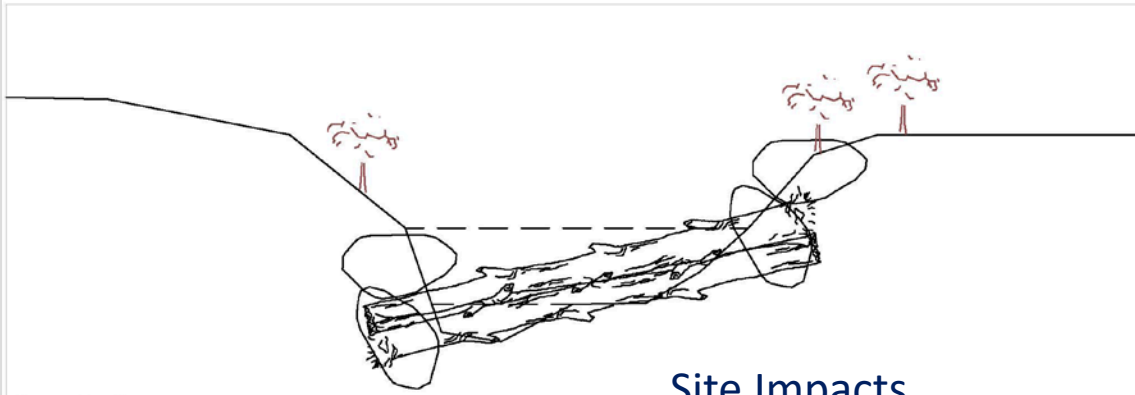
Typical design developed by TroutScapes River Restoration, LLC.

Log Vane Treatment Typical

Flow



Profile



Cross Section

Site Impacts

	Treatment	Fill Placed Below OHW (cu-yd)	Length (ft)	Temporary Impact (sq ft)	Direct Impact (sq ft)	Boulders (each 2-3 ft)	Logs with rootwads
Site 1	Bed and Bank Logs	8	20	0	36	6	2
Site 2	Bed and Bank Logs	9	30	0	39	6	3
Site 3	Boulder Cluster	6	30	0	30	6	0
Site 4	Bed and Bank Logs	12	30	0	47	9	3
Site 5	Log steps (5)	30	100	0	87	20	10
Site 6	Riparian Planting	0	0	0	0	0	0
Site 7	Boulder Cluster	6	30	0	30	6	0
Site 8	Bed and Bank Logs	20	50	0	66	15	5
Site 9	Staging Area and temporary river work	0	40	3000	0	0	0
Total		91	330	3000	335	68	23

Boulder Cluster Treatment Typical

Plan view

FLOW

Profile view

FLOW

Header Rock

Footer Rock

BKF

LowFlow

Cross Section view

BKF

LowFlow

Typical design developed by USFWS Partners Program, NY.

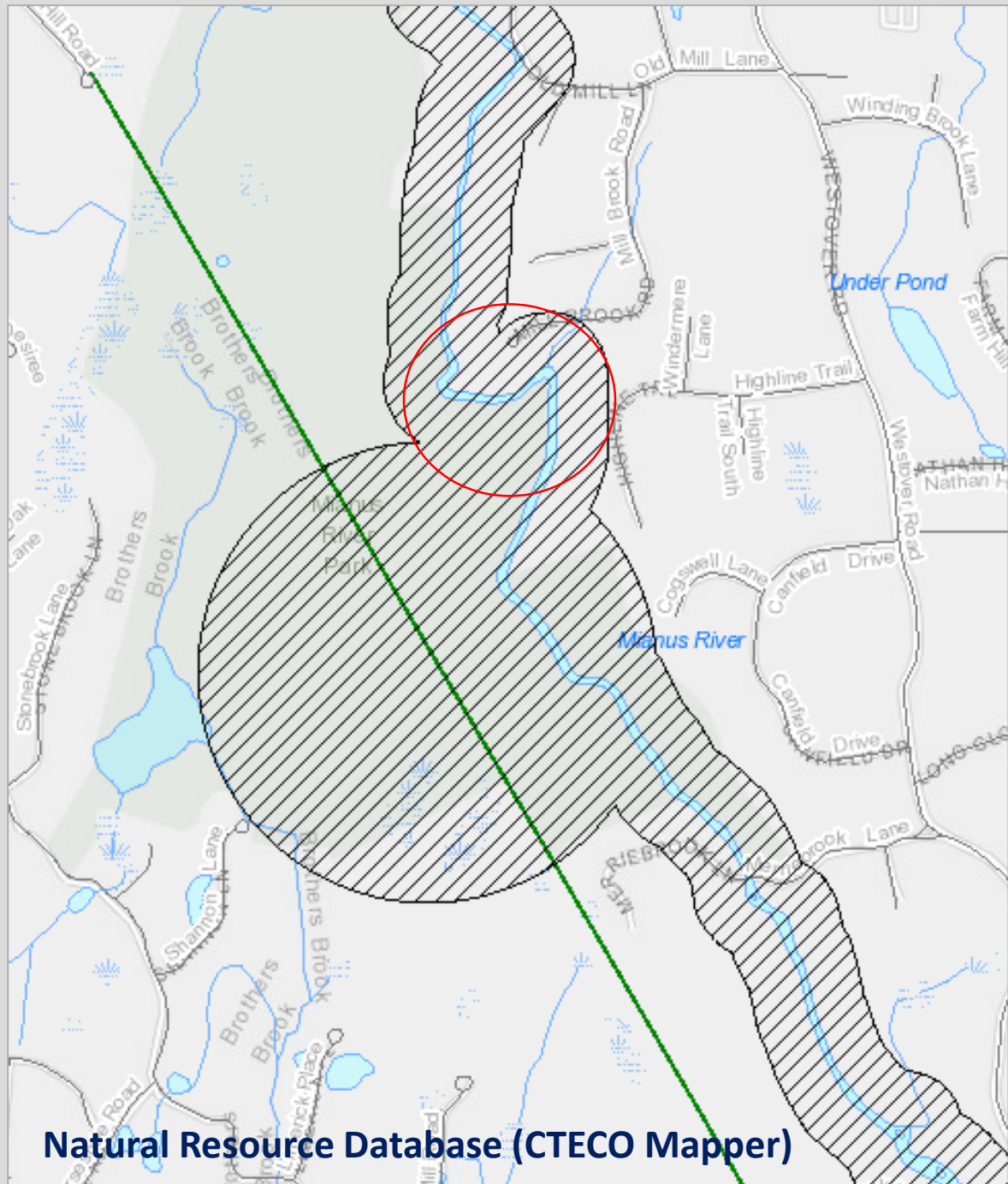


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Typical
Treatments

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Natural Resource Database (CTECO Mapper)



FEMA Map of the Site

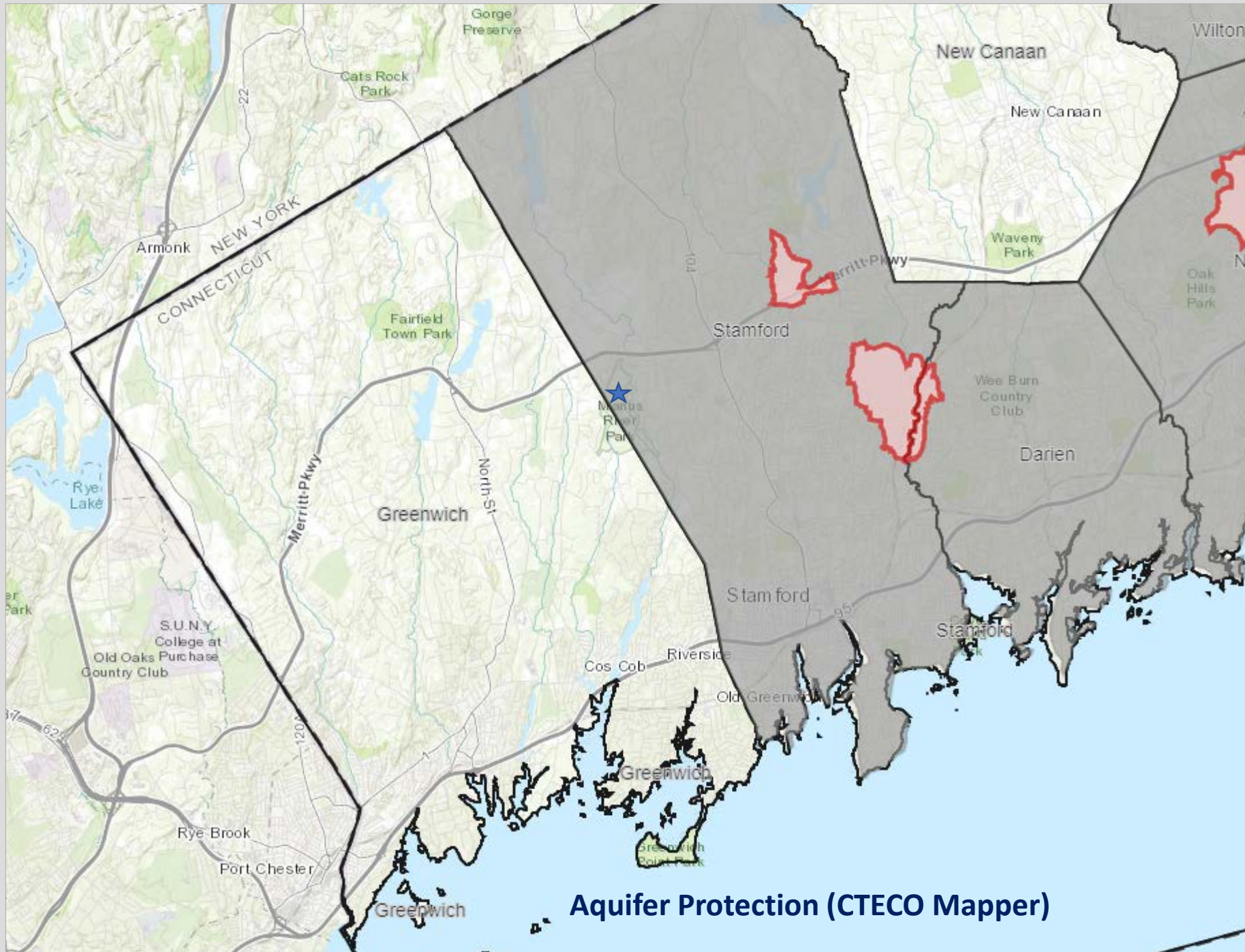


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Natural
Diversity
Database
FEMA
Mapping

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Aquifer Protection (CTECO Mapper)

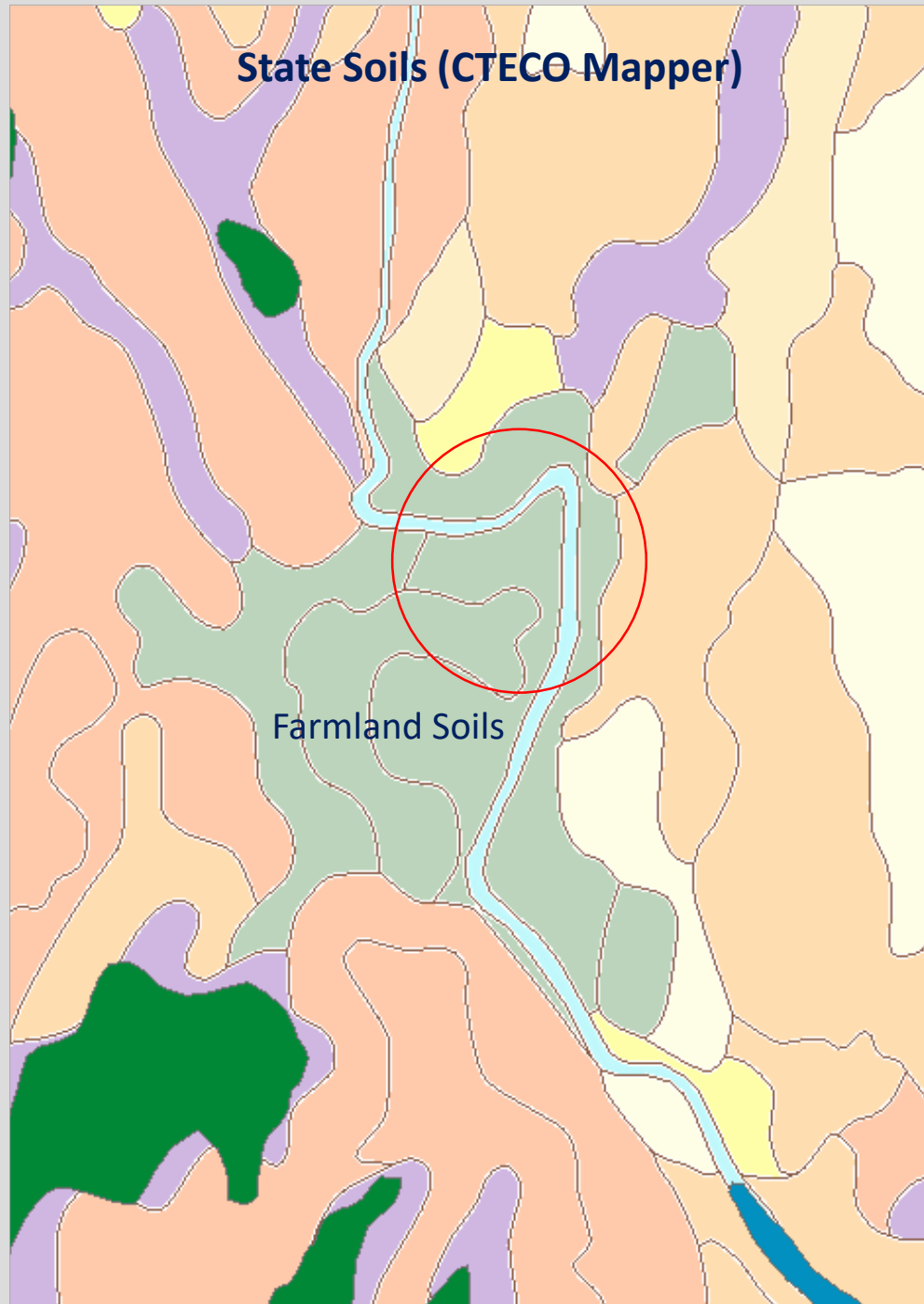
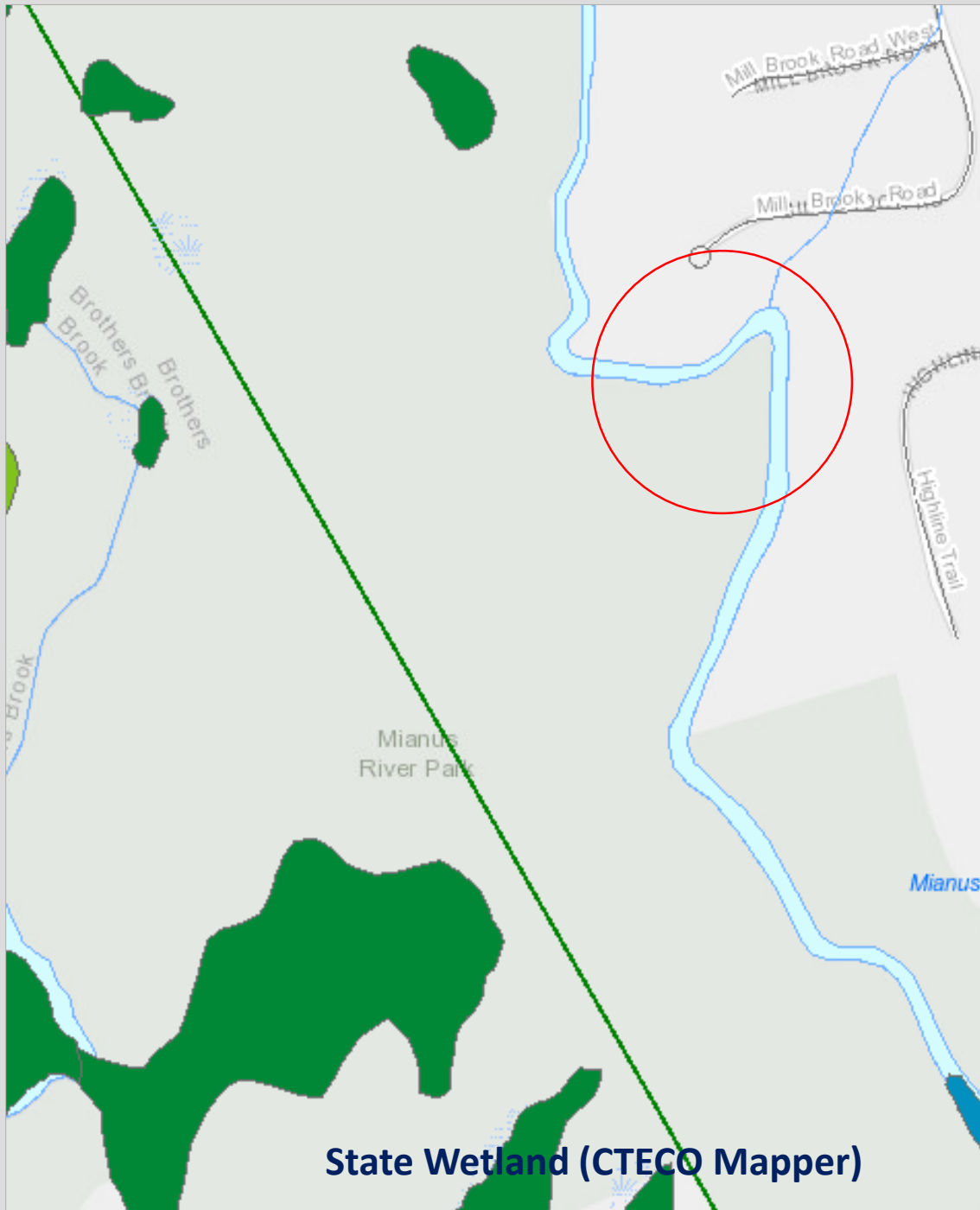


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Aquifer
Protection

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Natural
Wetlands and
Soils

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