



DRAINAGE MONITORING REPORT

GEOTECHNICAL | ENVIRONMENTAL | ECOLOGICAL | WATER | CONSTRUCTION MANAGEMENT

Known for excellence. Built on trust.

Eversource Transmission
Line:

F107 - Seacoast Reliability Project

Location:

**Durham, New
Hampshire**

GZA Project No:

04.0190967.00

TYPE OF INSPECTION: Daily Weekly Storm Event⁺ Reduced Frequency⁺⁺
 Other:

Date: **12/13/2020** Time: **1155** ⁺Was this inspection triggered by a 0.25" storm event? Yes No

If yes, how did you determine whether a 0.25" storm event has occurred? Rain Gauge Weather Station
 Other If other, please describe Weather Underground

+Storm event info (approx): Intermittent light rain beginning afternoon of 12/12 and continuing to early morning of 12/13

Amount of rainfall (inches): 0.49

++Reason for Reduced Frequency
(i.e., Monthly due to dry conditions):

Inspector name(s) and title(s): Matt Deane, Technical Specialist

Others present/affiliation(s):

Weather conditions (since last inspection): Variable sun and clouds, no measurable precipitation until 12/12

Weather conditions (time of inspection): Fog, Low 40's

pH Meter Information (make/model): **Hanna HI98107**

Calibration Method: 2 Point

Date: **12/13/20** Time: **1115**

Notes:

PROJECT TEAM

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CURRENT/RECENT SITE WORK ACTIVITIES / NOTES

- Construction site nearby (inactive on this date).

PHOTOGRAPHS



UNH Wetland - 1 (Stormwater Area)



UNH Wetland - 2 (Stormwater Area)



UNH Wetland - 3 (Cattail Wetland)



UNH Wetland - 4 (Cattail Wetland)



UNH Wetland - 5 (Cattail Wetland)



UNH Wetland - 6 (Cattail Wetland)

DRAINAGE AREA MONITORING

Location: UNH Wetland – 1 (Stormwater Area)

Status of surface water at the time of inspection? Dry Standing Flowing

pH: ---

Observations/Notes:

Location: UNH Wetland – 2 (Stormwater Area)

Status of surface water at the time of inspection? Dry Standing Flowing

pH: 7.5

Observations/Notes: Large area of variable depth standing water, max depth approx. 5". Turbid water observed.

Location: UNH Wetland – 3 (Cattail Wetland)

Status of surface water at the time of inspection? Dry Standing Flowing

pH: 8.5

Observations/Notes: Large area of variable depth standing water, max depth approx. 8". Turbid water observed.

Location: UNH Wetland – 4 (Cattail Wetland)

Status of surface water at the time of inspection? Dry Standing Flowing

pH: 6.5

Observations/Notes: Large area of variable depth standing water, max depth approx. 8".

Location: UNH Wetland – 5 (Cattail Wetland)

Status of surface water at the time of inspection? Dry Standing Flowing

pH: 6.3

Observations/Notes: Large area of variable depth standing water, max depth approx. 8".

Location: UNH Wetland – 6 (Cattail Wetland)

Status of surface water at the time of inspection? Dry Standing Flowing

pH: ---

Observations/Notes: Soil saturated but no standing water at surface.

Location: College Brook – 1 (Upstream in Brook)

Status of surface water at the time of inspection? Dry Standing Flowing

pH: **Not Monitored**

Observations/Notes:

Location: College Brook – 2 (Downstream in Brook)

Status of surface water at the time of inspection? Dry Standing Flowing

pH: **Not Monitored**

Observations/Notes:

Location: CB – 1 (Catch Basin)

Status of surface water at the time of inspection? Dry Standing Flowing

pH: **Not Monitored**

Observations/Notes:

Location: CB – 2 (Catch Basin)

Status of surface water at the time of inspection? Dry Standing Flowing

pH: **Not Monitored**

Observations/Notes:

Location: RG – 1 (Rain Garden)

Status of surface water at the time of inspection? Dry Standing Flowing

pH: **Not Monitored**

Observations/Notes:

Location: A Lot – 1 (Drainage Swale)

Status of surface water at the time of inspection? Dry Standing Flowing

pH: **Not Monitored**

Observations/Notes:

Location: Reservoir Brook – 1 (Brook)

Status of surface water at the time of inspection? Dry Standing Flowing

pH: **Not Monitored**

Observations/Notes:

Location:

Status of surface water at the time of inspection? Dry Standing Flowing

pH:

Observations/Notes:

OTHER COMMENTS AND OBSERVATIONS

- None.



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Eversource Transmission
Line:

**F107 - Seacoast
Reliability Project**

Location:

**Durham, New
Hampshire**

GZA Project No:

04.0190967.00

TYPE OF INSPECTION: Daily Weekly Storm Event⁺ Reduced Frequency⁺⁺
 Other:

Date: **12/15/2020** Time: **1015** ⁺Was this inspection triggered by a 0.25" storm event? Yes No

If yes, how did you determine whether a 0.25" storm event has occurred? Rain Gauge Weather Station
 Other If other, please describe

+Storm event info (approx):

Amount of rainfall (inches):

++Reason for Reduced Frequency
(i.e., Monthly due to dry conditions):

Inspector name(s) and title(s): Matt Deane, Technical Specialist

Others present/affiliation(s):

Weather conditions (since last inspection): Cloudy with brief light rain on 12/14, no measurable precipitation

Weather conditions (time of inspection): Sunny, Low 30's

pH Meter Information (make/model): **Hanna HI98107**

Calibration Method: 2 Point

Date: **12/15/20** Time: **0925**

Notes:

PROJECT TEAM

PROJECT OWNER

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CURRENT/RECENT SITE WORK ACTIVITIES / NOTES

- Active construction/earthwork occurring in adjacent parking lot.

PHOTOGRAPHS



UNH Wetland - 1 (Stormwater Area)



UNH Wetland - 2 (Stormwater Area)



UNH Wetland - 3 (Cattail Wetland)



UNH Wetland - 4 (Cattail Wetland)



UNH Wetland - 5 (Cattail Wetland)



UNH Wetland - 6 (Cattail Wetland)

DRAINAGE AREA MONITORING

Location: UNH Wetland – 1 (Stormwater Area)

Status of surface water at the time of inspection? Dry Standing Flowing

pH: --

Observations/Notes: Scarce standing water in vicinity, not enough to obtain measurement.

Location: UNH Wetland – 2 (Stormwater Area)

Status of surface water at the time of inspection? Dry Standing Flowing

pH: 7.5

Observations/Notes: Large area of variable depth standing water, max depth approx. 4". Surface iced over.

Location: UNH Wetland – 3 (Cattail Wetland)

Status of surface water at the time of inspection? Dry Standing Flowing

pH: 7.7

Observations/Notes: Large area of variable depth standing water, max depth approx. 6". Surface iced over.

Location: UNH Wetland – 4 (Cattail Wetland)

Status of surface water at the time of inspection? Dry Standing Flowing

pH: 6.5

Observations/Notes: Large area of variable depth standing water, max depth approx. 8". Surface iced over.

Location: UNH Wetland – 5 (Cattail Wetland)

Status of surface water at the time of inspection? Dry Standing Flowing

pH: 6.3

Observations/Notes: Large area of variable depth standing water, max depth approx. 8". Surface iced over.

Location: UNH Wetland – 6 (Cattail Wetland)

Status of surface water at the time of inspection? Dry Standing Flowing

pH: ---

Observations/Notes:

Location: College Brook – 1 (Upstream in Brook)

Status of surface water at the time of inspection? Dry Standing Flowing

pH: **Not Monitored**

Observations/Notes:

Location: College Brook – 2 (Downstream in Brook)

Status of surface water at the time of inspection? Dry Standing Flowing

pH: **Not Monitored**

Observations/Notes:

Location: CB – 1 (Catch Basin)

Status of surface water at the time of inspection? Dry Standing Flowing

pH: **Not Monitored**

Observations/Notes:

Location: CB – 2 (Catch Basin)

Status of surface water at the time of inspection? Dry Standing Flowing

pH: **Not Monitored**

Observations/Notes:

Location: RG – 1 (Rain Garden)

Status of surface water at the time of inspection? Dry Standing Flowing

pH: **Not Monitored**

Observations/Notes:

Location: A Lot – 1 (Drainage Swale)

Status of surface water at the time of inspection? Dry Standing Flowing

pH: **Not Monitored**

Observations/Notes:

Location: Reservoir Brook – 1 (Brook)

Status of surface water at the time of inspection? Dry Standing Flowing

pH: **Not Monitored**

Observations/Notes:

Location:

Status of surface water at the time of inspection? Dry Standing Flowing

pH:

Observations/Notes:

OTHER COMMENTS AND OBSERVATIONS

- Ice observed at monitoring locations. Broke through ice to obtain pH measurements.



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Eversource Transmission Line:

F107 - Seacoast Reliability Project

Location:

Durham, New Hampshire

GZA Project No:

04.0190967.00

TYPE OF INSPECTION:

- Daily
 Weekly
 Storm Event⁺
 Reduced Frequency⁺⁺
 Other:

Date: **12/18/2020** Time: **1030** ⁺Was this inspection triggered by a 0.25" storm event? Yes No

If yes, how did you determine whether a 0.25" storm event has occurred? Rain Gauge Weather Station Other If other, please describe

+Storm event info (approx):

Amount of rainfall (inches):

++Reason for Reduced Frequency (i.e., Monthly due to dry conditions):

Inspector name(s) and title(s): Matt Deane, Technical Specialist

Others present/affiliation(s):

Weather conditions (since last inspection): Variable clouds with snow beginning late on 12/16 and continuing through the day on 12/17

Weather conditions (time of inspection): Cloudy, Mid 20's

pH Meter Information (make/model): **Hanna HI98107**

Calibration Method: 2 Point

Date: **12/18/20** Time: **0935**

Notes:

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PROJECT OWNER

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CURRENT/RECENT SITE WORK ACTIVITIES / NOTES

- Active construction/earthwork occurring in adjacent parking lot.

PHOTOGRAPHS



UNH Wetland - 1 (Stormwater Area)



UNH Wetland - 2 (Stormwater Area)



UNH Wetland - 3 (Cattail Wetland)



UNH Wetland - 4 (Cattail Wetland)



UNH Wetland - 5 (Cattail Wetland)



UNH Wetland - 6 (Cattail Wetland)

DRAINAGE AREA MONITORING	
Location: UNH Wetland – 1 (Stormwater Area) Status of surface water at the time of inspection? <input checked="" type="checkbox"/> Dry <input type="checkbox"/> Standing <input type="checkbox"/> Flowing pH: -- Observations/Notes:	
Location: UNH Wetland – 2 (Stormwater Area) Status of surface water at the time of inspection? <input type="checkbox"/> Dry <input checked="" type="checkbox"/> Standing <input type="checkbox"/> Flowing pH: 7.5 Observations/Notes: Large area of variable depth standing water, max depth approx. 3". Surface iced over.	
Location: UNH Wetland – 3 (Cattail Wetland) Status of surface water at the time of inspection? <input type="checkbox"/> Dry <input checked="" type="checkbox"/> Standing <input type="checkbox"/> Flowing pH: -- Observations/Notes: Standing water approx. 2" deep frozen through, unable to obtain pH measurement.	
Location: UNH Wetland – 4 (Cattail Wetland) Status of surface water at the time of inspection? <input type="checkbox"/> Dry <input checked="" type="checkbox"/> Standing <input type="checkbox"/> Flowing pH: 6.5 Observations/Notes: Large area of variable depth standing water, max depth approx. 5". Surface iced over.	
Location: UNH Wetland – 5 (Cattail Wetland) Status of surface water at the time of inspection? <input type="checkbox"/> Dry <input checked="" type="checkbox"/> Standing <input type="checkbox"/> Flowing pH: 6.5 Observations/Notes: Large area of variable depth standing water, max depth approx. 5". Surface iced over.	
Location: UNH Wetland – 6 (Cattail Wetland) Status of surface water at the time of inspection? <input checked="" type="checkbox"/> Dry <input type="checkbox"/> Standing <input type="checkbox"/> Flowing pH: --- Observations/Notes:	
Location: College Brook – 1 (Upstream in Brook) Status of surface water at the time of inspection? <input type="checkbox"/> Dry <input type="checkbox"/> Standing <input type="checkbox"/> Flowing pH: Not Monitored Observations/Notes:	
Location: College Brook – 2 (Downstream in Brook) Status of surface water at the time of inspection? <input type="checkbox"/> Dry <input type="checkbox"/> Standing <input type="checkbox"/> Flowing pH: Not Monitored Observations/Notes:	

Location: CB – 1 (Catch Basin)

Status of surface water at the time of inspection? Dry Standing Flowing

pH: **Not Monitored**

Observations/Notes:

Location: CB – 2 (Catch Basin)

Status of surface water at the time of inspection? Dry Standing Flowing

pH: **Not Monitored**

Observations/Notes:

Location: RG – 1 (Rain Garden)

Status of surface water at the time of inspection? Dry Standing Flowing

pH: **Not Monitored**

Observations/Notes:

Location: A Lot – 1 (Drainage Swale)

Status of surface water at the time of inspection? Dry Standing Flowing

pH: **Not Monitored**

Observations/Notes:

Location: Reservoir Brook – 1 (Brook)

Status of surface water at the time of inspection? Dry Standing Flowing

pH: **Not Monitored**

Observations/Notes:

Location:

Status of surface water at the time of inspection? Dry Standing Flowing

pH:

Observations/Notes:

OTHER COMMENTS AND OBSERVATIONS

- Thick snow and ice layer at all monitoring locations due to winter storm. Ice broken through where possible to obtain pH measurement.