



DRAINAGE MONITORING REPORT

GEOTECHNICAL | ENVIRONMENTAL | ECOLOGICAL | WATER | CONSTRUCTION MANAGEMENT

Known for excellence. Built on trust.

Eversource Transmission
Line:

F107 - Seacoast Reliability Project

Location:

Newington, New Hampshire

GZA Project No:

04.0190967.00

TYPE OF INSPECTION:

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

Date: **12/06/2020** Time: **1245** ⁺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): Variable rain beginning early morning on 12/5 turning to wintery mix and snow in the afternoon and continuing until early morning on 12/6

Amount of rainfall (inches): 1.78

⁺⁺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 12/5

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

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

Calibration Method: 2 Point

Date: **12/06/20** Time: **1240**

Notes:

PROJECT TEAM

PROJECT OWNER

Eversource

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CURRENT/RECENT SITE WORK ACTIVITIES / NOTES

- None

PHOTOGRAPHS



29 Gundalow - 1 (Drainage Area)



29 Gundalow - 2 (Culvert)



64 Gundalow - 1 (Drainage Course)



64 Gundalow - 2 (Drainage Course)



4 Brickyard Circle - 1 (Drainage Course)



4 Brickyard Circle - 2 (Drainage Course)

PHOTOGRAPHS



4 Brickyard Circle – 3 (Drainage Course)

DRAINAGE AREA MONITORING

Location: 29 Gundalow – 1 (Drainage Area)

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

pH: **6.0**

Observations/Notes: Intermittent areas of standing water in grass, max depth approx. 1"

Location: 29 Gundalow – 2 (Culvert)

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

pH: **11.4**

Observations/Notes: Water extending approx. 18" beyond culvert inlet into stone area, approx. max depth 4". Flow visible through culvert.

Location: 64 Gundalow – 1 (Drainage Course)

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

pH: **10.4**

Observations/Notes: Accessible flowing water extending approx. 16" from culvert outlet, approx. 2" deep.

Location: 64 Gundalow – 2 (Drainage Course)

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

pH: **9.3**

Observations/Notes: Large area of pooled water extending approx. 5' from culvert inlets, max depth approx. 8". Visible flow through culverts.

Location: 4 Brickyard Circle – 1 (Drainage Course)

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

pH: **8.6**

Observations/Notes: Water flowing through culvert with pools at outlet, max depth approx. 10". Visible flow through culvert and into raceway.

Location: 4 Brickyard Circle – 2 (Drainage Course)

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

pH: **7.7**

Observations/Notes: Water flowing through center and adjacent to east wall of raceway, approx. 4" deep.

Location: 4 Brickyard Circle – 3 (Drainage Course)

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

pH: **7.5**

Observations/Notes: Water flowing with pooled area in center of raceway, max depth approx. 6".

Location: Knight's Brook – 1 (Upstream in Brook)

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

pH: **Not Monitored**

Observations/Notes:

Location: Knight's Brook – 2 (Downstream in Brook)

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

pH: **Not Monitored**

Observations/Notes:

Location: Knight's Brook – 3 (Above Duct Bank in Brook)

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

pH: **Not Monitored**

Observations/Notes:

Location: Hannah – 1 (Wetland NW-22)

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

pH: **Not Monitored**

Observations/Notes:

Location: Hannah – 2 (Wetland NW-24)

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

pH: **Not Monitored**

Observations/Notes:

Location: Flynn Pit – 1 (Wetland NW-4)

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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F107 - Seacoast Reliability Project

Location:

Newington, New Hampshire

GZA Project No:

04.0190967.00

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

Date: **12/08/2020** Time: **0940** ⁺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 sun and clouds, no measurable precipitation

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

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

Calibration Method: 2 Point

Date: **12/08/20** Time: **0935**

Notes:

PROJECT TEAM

PROJECT OWNER

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CURRENT/RECENT SITE WORK ACTIVITIES / NOTES

- None

PHOTOGRAPHS



29 Gundalow - 1 (Drainage Area)



29 Gundalow - 2 (Culvert)



64 Gundalow - 1 (Drainage Course)



64 Gundalow - 2 (Drainage Course)



4 Brickyard Circle - 1 (Drainage Course)



4 Brickyard Circle - 2 (Drainage Course)

PHOTOGRAPHS



4 Brickyard Circle – 3 (Drainage Course)

DRAINAGE AREA MONITORING

Location: 29 Gundalow – 1 (Drainage Area)

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

pH: --

Observations/Notes: Saturated soil but no standing water.

Location: 29 Gundalow – 2 (Culvert)

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

pH: 12.1

Observations/Notes: Water extending approx. 12" beyond culvert inlet into stone area, approx. max depth 4". Flow visible through culvert.

Location: 64 Gundalow – 1 (Drainage Course)

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

pH: 11.5

Observations/Notes: Accessible flowing water extending approx. 12" from culvert outlet, approx. 1" deep.

Location: 64 Gundalow – 2 (Drainage Course)

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

pH: 9.5

Observations/Notes: Standing water extending approx. 2' from culvert inlets, max depth approx. 3".

Location: 4 Brickyard Circle – 1 (Drainage Course)

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

pH: 9.2

Observations/Notes: Standing water extending approx. 2.5' from outlet, max depth approx. 10".

Location: 4 Brickyard Circle – 2 (Drainage Course)

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

pH: 7.9

Observations/Notes: Water flowing through center and adjacent to east wall of raceway, approx. 3" deep.

Location: 4 Brickyard Circle – 3 (Drainage Course)

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

pH: 7.6

Observations/Notes: Pooled area in center of raceway, max depth approx. 4".

Location: Knight's Brook – 1 (Upstream in Brook)

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

pH: **Not Monitored**

Observations/Notes:

Location: Knight's Brook – 2 (Downstream in Brook)

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

pH: **Not Monitored**

Observations/Notes:

Location: Knight's Brook – 3 (Above Duct Bank in Brook)

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

pH: **Not Monitored**

Observations/Notes:

Location: Hannah – 1 (Wetland NW-22)

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

pH: **Not Monitored**

Observations/Notes:

Location: Hannah – 2 (Wetland NW-24)

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

pH: **Not Monitored**

Observations/Notes:

Location: Flynn Pit – 1 (Wetland NW-4)

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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Location:

Newington, New Hampshire

GZA Project No:

04.0190967.00

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

Date: **12/10/2020** Time: **0910** ⁺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 sun and clouds, no measurable precipitation

Weather conditions (time of inspection): Cloudy, High 30's

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

Calibration Method: 2 Point

Date: **12/10/20** Time: **0905**

Notes:

PROJECT TEAM

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CURRENT/RECENT SITE WORK ACTIVITIES / NOTES

- None

PHOTOGRAPHS



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29 Gundalow - 2 (Culvert)



64 Gundalow - 1 (Drainage Course)



64 Gundalow - 2 (Drainage Course)



4 Brickyard Circle - 1 (Drainage Course)



4 Brickyard Circle - 2 (Drainage Course)

PHOTOGRAPHS



4 Brickyard Circle – 3 (Drainage Course)

DRAINAGE AREA MONITORING

Location: 29 Gundalow – 1 (Drainage Area)

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

pH: --

Observations/Notes: Saturated soil but no standing water.

Location: 29 Gundalow – 2 (Culvert)

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

pH: 12.6

Observations/Notes: Water extending approx. 12" beyond culvert inlet into stone area, approx. max depth 4". Flow visible through culvert.

Location: 64 Gundalow – 1 (Drainage Course)

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

pH: 12.0

Observations/Notes: Accessible flowing water extending approx. 12" from culvert outlet, approx. 1" deep.

Location: 64 Gundalow – 2 (Drainage Course)

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

pH: 9.6

Observations/Notes: Standing water extending approx. 2' from culvert inlets, max depth approx. 2".

Location: 4 Brickyard Circle – 1 (Drainage Course)

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

pH: 9.3

Observations/Notes: Standing water extending approx. 2.5' from outlet, max depth approx. 10".

Location: 4 Brickyard Circle – 2 (Drainage Course)

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

pH: 7.7

Observations/Notes: Water flowing through center and adjacent to east wall of raceway, approx. 3" deep.

Location: 4 Brickyard Circle – 3 (Drainage Course)

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

pH: 7.6

Observations/Notes: Pooled area in center of raceway, max depth approx. 4".

Location: Knight's Brook – 1 (Upstream in Brook)

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

pH: **Not Monitored**

Observations/Notes:

<p>Location: Knight's 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:</p>
<p>Location: Knight's Brook – 3 (Above Duct Bank 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:</p>
<p>Location: Hannah – 1 (Wetland NW-22) 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:</p>
<p>Location: Hannah – 2 (Wetland NW-24) 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:</p>
<p>Location: Flynn Pit – 1 (Wetland NW-4) 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:</p>
<p>Location: Status of surface water at the time of inspection? <input type="checkbox"/> Dry <input type="checkbox"/> Standing <input type="checkbox"/> Flowing pH: Observations/Notes:</p>

<p>OTHER COMMENTS AND OBSERVATIONS</p> <ul style="list-style-type: none">• None.
