

NC Division of Water Quality –Methodology for Identification of Intermittent and Perennial Streams and Their Origins v. 4.11

NC DWQ Stream Identification Form Version 4.11

Date: 5-16-12	Project/Site: BRIDGE 910130	Latitude: 35.937
Evaluator: BARRETT / CHEELY	County: WAKE	Longitude: -78.507
Total Points: Stream is at least intermittent if ≥ 19 or perennial if $\geq 30^*$ 26.75	Stream Determination (circle one) Ephemeral Intermittent <u>Perennial</u>	Other e.g. Quad Name:

A. Geomorphology (Subtotal = 8)

	Absent	Weak	Moderate	Strong
1 ^a Continuity of channel bed and bank	0	1	2	3
2. Sinuosity of channel along thalweg	0	1	2	3
3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	1	1	2	3
4. Particle size of stream substrate	0	1	2	3
5. Active/relict floodplain	0	1	2	3
6. Depositional bars or benches	0	1	2	3
7. Recent alluvial deposits	0	1	2	3
8. Headcuts	0	1	2	3
9. Grade control	0	0.5	1	1.5
10. Natural valley	0	0.5	1	1.5
11. Second or greater order channel	No = 0		Yes = 3	

^a artificial ditches are not rated; see discussions in manual

B. Hydrology (Subtotal = 12)

12. Presence of Baseflow	0	1	2	3
13. Iron oxidizing bacteria	0	1	2	3
14. Leaf litter	1.5	0.5	0.5	0
15. Sediment on plants or debris	0	0.5	1	1.5
16. Organic debris lines or piles	0	0.5	1	1.5
17. Soil-based evidence of high water table?	No = 0		Yes = 3	

C. Biology (Subtotal = 12.75)

18. Fibrous roots in streambed	3	2	1	0
19. Rooted upland plants in streambed	3	2	1	0
20. Macroinvertebrates (note diversity and abundance)	0	1	2	3
21. Aquatic Mollusks	0	1	2	3
22. Fish	0	0.5	1	1.5
23. Crayfish	0	0.5	1	1.5
24. Amphibians	0	0.5	1	1.5
25. Algae	0	0.5	1	1.5
26. Wetland plants in streambed	FACW = 0.75 OBL = 1.5 Other = 0			

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: See mapping.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Structure No. 910130 City/County: Wake County Sampling Date: 5-16-2012
 Applicant/Owner: NCDOT State: NC Sampling Point: WET-WA-002
 Investigator(s): Bill Barrett & Erin Cheely (Jason Dilday on 6-11-12) Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): toe of slope / floodplain Local relief (concave, convex, none): concave Slope (%): _____
 Subregion (LRR or MLRA): P Lat: 35.937 Long: -78.507 Datum: _____
 Soil Map Unit Name: Chewacla sandy loam NWI classification: PEM1
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐, significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☒ No ☐	Is the Sampled Area within a Wetland?	Yes ☒ No ☐
Hydric Soil Present?	Yes ☒ No ☐		
Wetland Hydrology Present?	Yes ☒ No ☐		
Remarks:			

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one is required; check all that apply)			
☐ Surface Water (A1)	☐ Hydrogen Sulfide Odor (C1)	☐ Surface Soil Cracks (B6)	
☐ High Water Table (A2)	☐ Oxidized Rhizospheres along Living Roots (C3)	☐ Sparsely Vegetated Concave Surface (B8)	
☒ Saturation (A3)	☐ Presence of Reduced Iron (C4)	☒ Drainage Patterns (B10)	
☐ Water Marks (B1)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Moss Trim Lines (B16)	
☐ Sediment Deposits (B2)	☐ Thin Muck Surface (C7)	☐ Dry-Season Water Table (C2)	
☐ Drift Deposits (B3)	☐ Other (Explain in Remarks)	☐ Crayfish Burrows (C8)	
☐ Algal Mat or Crust (B4)		☐ Saturation Visible on Aerial Imagery (C9)	
☐ Iron Deposits (B5)		☐ Stunted or Stressed Plants (D1)	
☐ Inundation Visible on Aerial Imagery (B7)		☐ Geomorphic Position (D2)	
☐ Water-Stained Leaves (B9)		☐ Shallow Aquitard (D3)	
☐ Aquatic Fauna (B13)		☐ Microtopographic Relief (D4)	
		☒ FAC-Neutral Test (D5)	
Field Observations:			
Surface Water Present?	Yes ☐ No ☒	Depth (inches):	_____
Water Table Present?	Yes ☐ No ☒	Depth (inches):	_____
Saturation Present? (includes capillary fringe)	Yes ☒ No ☐	Depth (inches):	<u>0</u>
		Wetland Hydrology Present? Yes ☒ No ☐	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

VEGETATION – Use scientific names of plants

 Sampling Point: WET-WA ~~1000~~

Tree Stratum (Plot size: N/A)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
		= Total Cover		
50% of total cover: _____		20% of total cover: _____		
Sapling/Shrub Stratum (Plot size: 15')				
1. <u>Rosa palustris</u>	10	Y	OBL	
2. <u>Rubus arvensis</u>	10	Y	FAC -	
3. <u>Fraxinus pennsylvanica</u>	5	N	FACW	
4. <u>Liquidambar styraciflua</u>	5	N	FAC+	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
		35 = Total Cover		
50% of total cover: 17.5		20% of total cover: 7		
Herb Stratum (Plot size: 15')				
1. <u>Juncus effusus</u>	25	Y	FACW+	
2. <u>Carex lurida</u>	20	Y	OBL	
3. <u>Eupatorium perfoliatum</u>	20	Y	FACW+	
4. <u>Carex vulpinoidea</u>	10	N	OBL	
5. <u>Solidago sp.</u>	10	N	_____	
6. <u>Typha angustifolia</u>	5	N	OBL	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
		70 = Total Cover		
50% of total cover: 35		20% of total cover: 14		
Woody Vine Stratum (Plot size: _____)				
1. <u>Lonicera japonica</u>	5	Y	FAC-	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		= Total Cover		
50% of total cover: _____		20% of total cover: _____		

Dominance Test Worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)
 Total Number of Dominant Species Across All Strata: 6 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x1 = _____
FACW species _____	x2 = _____
FAC species _____	x3 = _____
FACU species _____	x4 = _____
UPL species _____	x5 = _____
Column Totals: _____ (A)	_____ (B)

 Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:
☐ 1 - Rapid Test for Hydrophytic Vegetation
☒ 2 - Dominance Test is >50%
☐ 3 - Prevalence Index is ≤3.0¹
☐ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:
Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft tall.
Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks: (If observed, list morphological adaptations below).

SOIL

Sampling Point: WET-WA ~~1002~~

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 5/2	95	7.5YR 4/6	5	C	PL	SL	
6-10+	10YR 6/1	98	10 YR 7/6	2	C	PL	SL	

¹Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- | | |
|--|--|
| ☐ Histosol (A1) | ☐ Dark Surface (S7) |
| ☐ Histic Epipedon (A2) | ☐ Polyvalue Below Surface (S8) (MLRA 147, 148) |
| ☐ Black Histic (A3) | ☐ Thin Dark Surface (S9) (MLRA 147, 148) |
| ☐ Hydrogen Sulfide (A4) | ☐ Loamy Gleyed Matrix (F2) |
| ☐ Stratified Layers (A5) | ☒ Depleted Matrix (F3) |
| ☐ 2 cm Muck (A10) (LRR N) | ☐ Redox Dark Surface (F6) |
| ☐ Depleted Below Dark Surface (A11) | ☐ Depleted Dark Surface (F7) |
| ☐ Thick Dark Surface (A12) | ☐ Redox Depressions (F8) |
| ☐ Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) | ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136) |
| ☐ Sandy Gleyed Matrix (S4) | ☐ Umbric Surface (F13) (MLRA 136, 122) |
| ☐ Sandy Redox (S5) | ☐ Piedmont Floodplain Soils (F19) (MLRA 148) |
| ☐ Stripped Matrix (S6) | |

Indicators for Problematic Hydric Soils³:

- | |
|--|
| ☐ 2 cm Muck (A10) (MLRA 147) |
| ☐ Coast Prairie Redox (A16) (MLRA 147, 148) |
| ☐ Piedmont Floodplain Soils (F19) (MLRA 136, 147) |
| ☐ Red Parent Material (TF2) |
| ☐ Very Shallow Dark Surface (TF12) |
| ☐ Other (Explain in Remarks) |

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soils Present?

Yes

☒

No

☐

Remarks:

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Structure No. 910130 City/County: Wake County Sampling Date: 5-16-2012
 Applicant/Owner: NCDOT State: NC Sampling Point: WET-WD
 Investigator(s): Bill Barrett & Erin Cheely (Jason Dilday on 6-11-12) Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): hill slope Local relief (concave, convex, none): concave Slope (%): _____
 Subregion (LRR or MLRA): P Lat: 35.937 Long: -78.507 Datum: _____
 Soil Map Unit Name: Chewacla sandy loam NWI classification: PEM1
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐, significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☒ No ☐	Is the Sampled Area within a Wetland?	Yes ☒ No ☐
Hydric Soil Present?	Yes ☒ No ☐		
Wetland Hydrology Present?	Yes ☒ No ☐		
Remarks:			

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)	
☐ Surface Water (A1) ☐ High Water Table (A2) ☒ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift Deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13)	☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8) ☒ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry-Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☒ FAC-Neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): <u>8</u>		Wetland Hydrology Present? Yes ☒ No ☐	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

VEGETATION – Use scientific names of plants

 Sampling Point: WET-WD

<u>Tree Stratum</u> (Plot size: <u>N/A</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	= Total Cover			
50% of total cover: _____ 20% of total cover: _____				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>N/A</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	= Total Cover			
50% of total cover: <u>2.5</u> 20% of total cover: <u>1</u>				
<u>Herb Stratum</u> (Plot size: <u>15'</u>)				
1. <u>Carex lurida</u>	<u>60</u>	<u>Y</u>	<u>OBL</u>	
2. <u>Juncus effusus</u>	<u>20</u>	<u>Y</u>	<u>FACW+</u>	
3. <u>Dichanthelium clandestinum</u>	<u>10</u>	<u>N</u>	<u>FACW</u>	
4. <u>Carex vulpinoidea</u>	<u>10</u>	<u>N</u>	<u>OBL</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	<u>100</u> = Total Cover			
50% of total cover: <u>50</u> 20% of total cover: <u>20</u>				
<u>Woody Vine Stratum</u> (Plot size: <u>N/A</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
	= Total Cover			
50% of total cover: _____ 20% of total cover: _____				

Dominance Test Worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
 Total Number of Dominant Species Across All Strata: 2 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x1 = _____
FACW species _____	x2 = _____
FAC species _____	x3 = _____
FACU species _____	x4 = _____
UPL species _____	x5 = _____
Column Totals: _____ (A)	_____ (B)

 Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:
☐ 1 - Rapid Test for Hydrophytic Vegetation
☒ 2 - Dominance Test is >50%
☐ 3 - Prevalence Index is ≤3.0¹
☐ Problematic Hydrophytic Vegetation1 (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:
Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft tall.
Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks: (If observed, list morphological adaptations below).

SOIL

Sampling Point: WET-WD

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 5/2	90	5YR 4/6	10	C	M	CL	
4-10+	10YR 5/1	90	10 YR 7/8	10	C	PL	SL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- | | |
|--|--|
| ☐ Histosol (A1) | ☐ Dark Surface (S7) |
| ☐ Histic Epipedon (A2) | ☐ Polyvalue Below Surface (S8) (MLRA 147, 148) |
| ☐ Black Histic (A3) | ☐ Thin Dark Surface (S9) (MLRA 147, 148) |
| ☐ Hydrogen Sulfide (A4) | ☐ Loamy Gleyed Matrix (F2) |
| ☐ Stratified Layers (A5) | ☒ Depleted Matrix (F3) |
| ☐ 2 cm Muck (A10) (LRR N) | ☐ Redox Dark Surface (F6) |
| ☐ Depleted Below Dark Surface (A11) | ☐ Depleted Dark Surface (F7) |
| ☐ Thick Dark Surface (A12) | ☐ Redox Depressions (F8) |
| ☐ Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) | ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136) |
| ☐ Sandy Gleyed Matrix (S4) | ☐ Umbric Surface (F13) (MLRA 136, 122) |
| ☐ Sandy Redox (S5) | ☐ Piedmont Floodplain Soils (F19) (MLRA 148) |
| ☐ Stripped Matrix (S6) | |

Indicators for Problematic Hydric Soils³:

- | |
|--|
| ☐ 2 cm Muck (A10) (MLRA 147) |
| ☐ Coast Prairie Redox (A16) (MLRA 147, 148) |
| ☐ Piedmont Floodplain Soils (F19) (MLRA 136, 147) |
| ☐ Red Parent Material (TF2) |
| ☐ Very Shallow Dark Surface (TF12) |
| ☐ Other (Explain in Remarks) |

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soils Present?

Yes

☒

No

☐

Remarks:

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Structure No. 910130 City/County: Wake County Sampling Date: 5-16-2012
 Applicant/Owner: NC DOT State: NC Sampling Point: UPL WAWW
 Investigator(s): Bill Barrett & Erin Cheely (Jason Dilday on 6-11-12) Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): none Slope (%): _____
 Subregion (LRR or MLRA): P Lat: 35.937 Long: -78.507 Datum: _____
 Soil Map Unit Name: Chewacla sandy loam NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☐ No ☒	Is the Sampled Area within a Wetland?	Yes ☐ No ☒
Hydric Soil Present?	Yes ☐ No ☒		
Wetland Hydrology Present?	Yes ☐ No ☒		
Remarks:			

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one is required; check all that apply)			
☐ Surface Water (A1)	☐ Hydrogen Sulfide Odor (C1)	☐ Surface Soil Cracks (B6)	
☐ High Water Table (A2)	☐ Oxidized Rhizospheres along Living Roots (C3)	☐ Sparsely Vegetated Concave Surface (B8)	
☐ Saturation (A3)	☐ Presence of Reduced Iron (C4)	☐ Drainage Patterns (B10)	
☐ Water Marks (B1)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Moss Trim Lines (B16)	
☐ Sediment Deposits (B2)	☐ Thin Muck Surface (C7)	☐ Dry-Season Water Table (C2)	
☐ Drift Deposits (B3)	☐ Other (Explain in Remarks)	☐ Crayfish Burrows (C8)	
☐ Algal Mat or Crust (B4)		☐ Saturation Visible on Aerial Imagery (C9)	
☐ Iron Deposits (B5)		☐ Stunted or Stressed Plants (D1)	
☐ Inundation Visible on Aerial Imagery (B7)		☐ Geomorphic Position (D2)	
☐ Water-Stained Leaves (B9)		☐ Shallow Aquitard (D3)	
☐ Aquatic Fauna (B13)		☐ Microtopographic Relief (D4)	
☐ FAC-Neutral Test (D5)			
Field Observations:			
Surface Water Present? Yes ☐ No ☒	Depth (inches): _____	Wetland Hydrology Present? Yes ☐ No ☒	
Water Table Present? Yes ☐ No ☒	Depth (inches): _____		
Saturation Present? (includes capillary fringe) Yes ☐ No ☒	Depth (inches): _____		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

VEGETATION – Use scientific names of plants

 Sampling Point: UPL WA **W**

Tree Stratum (Plot size: N/A)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Across All Strata: 0 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
= Total Cover				Prevalence Index worksheet: Total % Cover of : Multiply by: OBL species _____ x1 = _____ FACW species _____ x2 = _____ FAC species _____ x3 = _____ FACU species _____ x4 = _____ UPL species _____ x5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
50% of total cover: _____ 20% of total cover: _____				
Sapling/Shrub Stratum (Plot size: N/A)				
1. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: ☐ 1 - Rapid Test for Hydrophytic Vegetation ☐ 2 - Dominance Test is >50% ☐ 3 - Prevalence Index is ≤3.0 ¹ ☐ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
= Total Cover				Definitions of Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
50% of total cover: _____ 20% of total cover: _____				
Herb Stratum (Plot size: 15' linear)				
1. <u>Fescue sp</u>	95	Y	UPL	Hydrophytic Vegetation Present? Yes ☐ No ☒
2. <u>Eupatorium capillifolium</u>	5	N	UPL	
3. <u>Allium ascalonicum</u>	5	N	UPL	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
105 = Total Cover				
50% of total cover: 52.5 20% of total cover: 21				
Woody Vine Stratum (Plot size: N/A)				
1. _____	_____	_____	_____	(Empty space for data entry)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				(Empty space for data entry)
50% of total cover: _____ 20% of total cover: _____				
Remarks: (If observed, list morphological adaptations below).				

Sampling Point: UPL WA-WB

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

- ³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soils Present?

Yes ☐ No ☒

Remarks: