

WATERSHED PROTECTION DEPARTMENT

P.O. Box 548 Pittsboro, NC 27312 PHONE: (919) 545-8394

Fax: (919) 542-2698 • E-mail: drew.blake@chathamcountync.gov • Website: www.chathamcountync.gov

October 17, 2022

Cory Darnell Sage Ecological Services, Inc. 3707 Swift Drive Raleigh, NC 27606	
Project Name:	Parcel # 62077
Location:	<u>Seaforth Road, Chatham County</u>
Subject Features:	Seven (7) ephemeral streams, seven (7) intermittent stream segments, two (2) perennial stream segments, and five (5) potential wetlands
Date of Determination:	<u>October 4, 2022</u>
Chatham County Record Number:	<u>WP-22-490</u>

Explanation:

The site visit was completed on October 4, 2022, by Drew Blake with Chatham County Watershed Protection and Cory Darnell of Sage Ecological Services on Parcel # 62077 that is located within the Jordan Lake watershed. Sage personnel completed a previous site visit which resulted in the identification of fourteen (14) potential ephemeral segments, six (6) potential intermittent segments, two (2) potential perennial segments, and five (5) potential wetlands on the property. Sage submitted a request for Chatham County to complete a formal review to determine if the features would be subject to riparian buffers according to Section 304 of the Chatham County Watershed Protection Ordinance.

All points of origin, stream type transitions, and wetland boundaries were reviewed and agreed to in the field by all parties in attendance. Seven (7) ephemeral stream segments that were identified by Sage were removed as they did not have a well-defined channel or did not meet the 10-point requirement for an ephemeral stream.

Required Riparian Buffers:

All ephemeral stream segments will require a 30-ft buffer from the top of bank landward on both sides. All intermittent stream segments will require a 50-ft buffer from the top of bank landward on both sides. The perennial stream segment will require a 100-ft buffer from the top of bank landward on both sides.

The potential wetlands identified by Sage have not been confirmed by the US Army Corps of Engineers. Once the USACE confirmation is received the 50-ft riparian buffers will be required from the flagged wetland boundaries as confirmed by the USACE.

Impacts to Riparian Buffers:

Impacts to the riparian buffers may require a Riparian Buffer Authorization depending on the size and scope of the impacts. Please refer to Section 304 (J)(3) of the Chatham County Watershed Protection Ordinance to



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determine if your impacts will require a Riparian Buffer Authorization. If you determine that a Riparian Buffer Authorization is required, please contact Drew Blake to receive the required application and submittal instructions.

This on-site determination shall expire five (5) years from the date of this letter. Landowners or affected parties that dispute a determination made by Chatham County, on parcels outside of the Jordan Lake watershed, may submit a request for appeal in writing to the Watershed Review Board. A request for a determination by the Watershed Review Board shall be made in accordance with Section 304 of the Chatham County Watershed Protection Ordinance. Landowners or affected parties that dispute a determination made by Chatham County, on parcels inside the Jordan Lake watershed, shall submit a request for appeal in writing to NC DWR, 401 & Buffer Permitting Unit, 1650 Mail Service Center, Raleigh, NC 27669-1650 attention of the Director of the NC Division of Water Quality.

Should this project result in any direct impacts to surface water features (i.e., crossing and/or filling streams or wetlands) additional reviews may be necessary. Additionally, a Section 404/401 Permit may be required. Any inquiries regarding Section 404/401 permitting should be directed to the Division of Water Resources (Central Office) at (919)-807-6364 and the US Army Corp of Engineers (Raleigh Regulatory Field Office) at (919)-554-4884.

Respectfully,

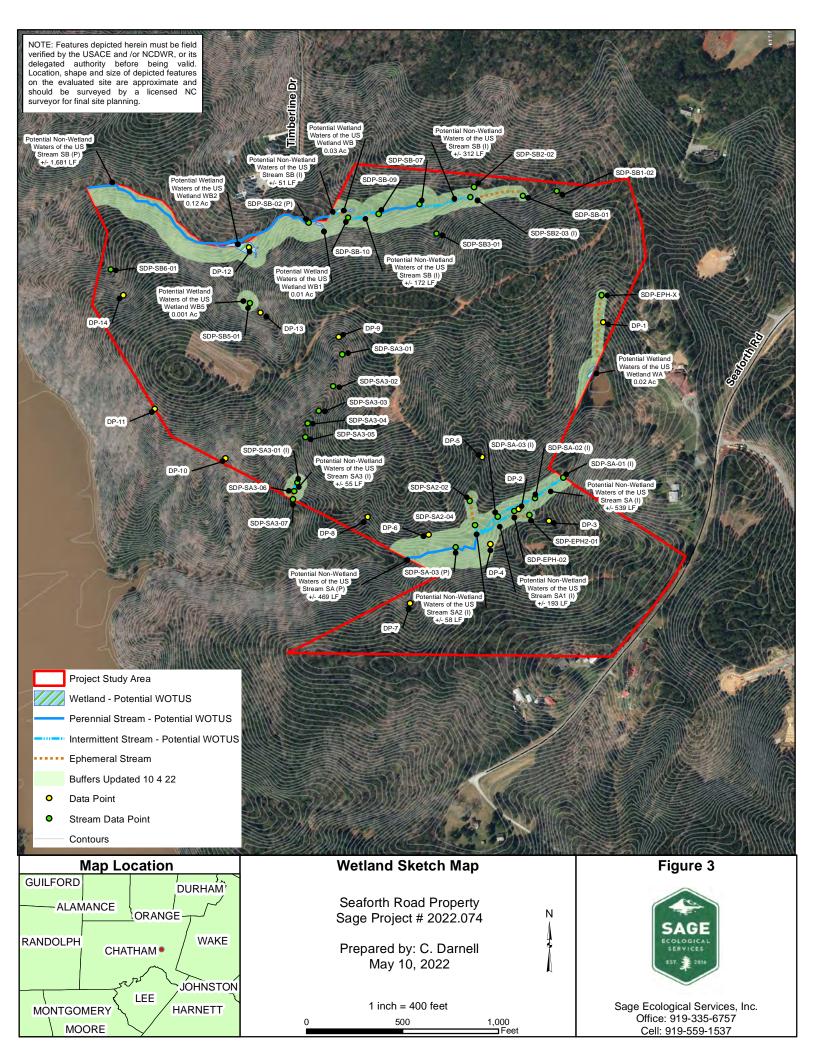
Drew Blake

Drew Blake Assistant Director, CESSWI

Enclosures:

Exhibit 3: Wetland Sketch Map – Completed by Sage Surface Water & Riparian Buffer Spreadsheet NC DWQ Stream Identification Form -Version 4.11 – Completed by Sage Wetland Determination Data Forms – Completed by Sage Environmental and Cultural Resources Due Diligence Report – Completed by Sage Major Subdivision Riparian Buffer Application Authorized Agent Form Authorization to Enter Property Form

cc: Rachael Thorn, Director, Chatham County Watershed Protection Department Justin Hasenfus, Sr. Watershed Specialist, Chatham County Watershed Protection Dept. Kimberly Tyson, Planner II/Subdivision Administrator, Chatham County Planning Department Hunter Glenn. Planner I, Chatham County Planning Department Angela Plummer, Planner II/Zoning Administrator, Chatham County Planning Department Jason Sullivan, Director, Chatham County Planning Department



		Se	eaforth Road	Proper	ty						
		Surface V	Water & Riparian I	Buffer Spr	eadsheet						
	Completed By: SAGE Ecological - C. Darnell										
Feature ID	Feature Type	Stream/Wetland Data Form ID	Stream Length or Wetland Acres	Latitude	Longitude	Buffer Required	Buffer Jurisdiction (Jordan, County + Jordan)				
Stream SA PER	Perennial	SDP-SA-03P	469	35.7092	-79.0786	100' (Perennial)	County+Jordan				
Stream SB PER	Perennial	SDP-SB-02	1681	35.7136	-79.0825	100' (Perennial)	County+Jordan				
Stream SA INT	Intermittent	SDP-SA-01	539	35.7099	-79.0774	50' (Intermittent)	County+Jordan				
Stream SA1	Intermittent	SDP-SA-03I	193	35.7096	-79.0778	50' (Intermittent)	County+Jordan				
Stream SA2	Intermittent	SDP-SA2-04	58	35.7095	-79.0781	50' (Intermittent)	County+Jordan				
Stream SA3	Intermittent	SDP-SA3-06	55	35.7101	-79.0813	50' (Intermittent)	County+Jordan				
Stream SB	Intermittent	SDP-SB-01	51	35.7140	-79.0807	50' (Intermittent)	County+Jordan				
Stream SB	Intermittent	SDP-SB-10	173	35.7140	-79.0801	50' (Intermittent)	County+Jordan				
Stream SB	Intermittent	SDP-SB2-03	312	35.7142	-79.0786	50' Jurisdictional Wetland	County+Jordan				
Wetland WA	Jurisdictional Wetland	DP-15	0.02	35.7118	-79.0761	50' Jurisdictional Wetland	County+Jordan				
Wetland WB	Jurisdictional Wetland	DP-16	0.03	35.7141	-79.0805	50' Jurisdictional Wetland	County+Jordan				
Wetland WB1	Jurisdictional Wetland	DP-17	0.01	35.7139	-79.0809	50' Jurisdictional Wetland	County+Jordan				
Wetland WB2	Jurisdictional Wetland	DP-12	0.12	35.7135	-79.0822	50' Jurisdictional Wetland	County+Jordan				
Wetland WB5	Jurisdictional Wetland	DP-18	0.001	35.7128	-79.0821	50' Jurisdictional Wetland	County+Jordan				
SDP-EPH	Ephemeral	SDP-EPH-02	25	35.7097	-79.0775	30' (Ephemeral)	County+Jordan				
SDP-SA2	Ephemeral	SDP-SA2-02	158	35.7099	-79.0782	30' (Ephemeral)	County+Jordan				
SDP-EPH1	Ephemeral	SDP-EPH-X	331	35.7126	-79.0760	30' (Ephemeral)	County+Jordan				
SDP-SA3	Ephemeral	SDP-SA3-01	45	35.7108	-79.0812	30' (Ephemeral)	County+Jordan				
SDP-SA1	Ephemeral	SDP-EPH2-01	98	35.7097	-79.0774	30' (Ephemeral)	County+Jordan				
SDP-SB	Ephemeral	SDP-SB-10	64	35.7140	-79.0805	30' (Ephemeral)	County+Jordan				
SDP-SB	Ephemeral	SDP-SB-01	255	35.7143	-79.0777	30' (Ephemeral)	County+Jordan				

Stream ID: SDP-SA01

NC DWQ Stream Identification Form Version 4.11

Date:	5/2/2022		Project/Site: Seaforth Road Site		Seaforth Road Site	Latitude:	35.7102
Evaluator:	Darnell, Beach		County:	Chat	ham	Longitude:	-79.0766
Total Points Stream is at leas ≥ 19 or perennia	intermittent if	22.5	Stream Determinat		Intermittent	other: e.g. Quad Name:	Merry Oaks

A. Geomorphology Subtotal = 12	Absent	Weak	Moderate	Strong	SCORE
1 ^a . Continuous bed and bank	0	1	2	3	3
2. Sinuosity of channel along thalweg	0	1	2	3	3
3. In-Channel structure: ex. riffle-pool, step-pool, ripple-	0	1	2	3	1
pool sequence					
4. Particle size of stream substrate	0	1	2	3	2
5. Active/relic floodplain	0	1	2	3	0
6. Depositional bars or benches	0	1	2	3	1
7. Recent alluvial deposits	0	1	2	3	0
8. Headcuts	0	1	2	3	1
9. Grade controls	0	0.5	1	1.5	0.5
10. Natural valley	0	0.5	1	1.5	0.5
11. Second or greater order channel	No = 0		Yes = 3		0
B. Hydrology Subtotal = 6.5	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	1
13. Iron oxidizing bacteria	0	1	2	3	0
14. Leaflitter	1.5	1			0
15. Sediment on plants or debris		1	0.5	0	0.5
	0	0.5	0.5 1	0 1.5	Ű
16. Organic debris lines or piles	0				0.5
16. Organic debris lines or piles17. Soil-based evidence of high water table?		0.5 0.5	1 1	1.5	0.5
	0	0.5 0.5	1 1	1.5 1.5	0.5 1 1
17. Soil-based evidence of high water table?	0 No	0.5 0.5 = 0	1 1 Ye:	1.5 1.5 S = 3	0.5 1 1 3
17. Soil-based evidence of high water table?C. BiologySubtotal = 4	0 No Absent	0.5 0.5 = 0 Weak	1 1 Yes Moderate	1.5 1.5 S = 3 Strong	0.5 1 1 3 SCORE
 17. Soil-based evidence of high water table? C. Biology Subtotal = 4 18. Fibrous roots in streambed 19. Rooted upland plants in streambed 	0 No Absent 3	0.5 0.5 = 0 Weak 2	1 1 Yes Moderate 1	1.5 1.5 S = 3 Strong 0	0.5 1 1 3 SCORE 1
 17. Soil-based evidence of high water table? C. Biology Subtotal = 4 18. Fibrous roots in streambed 	0 No Absent 3 3	0.5 0.5 = 0 Weak 2 2	1 1 Yes Moderate 1 1	1.5 1.5 5 = 3 Strong 0 0	0.5 1 1 3 SCORE 1 2
 17. Soil-based evidence of high water table? C. Biology Subtotal = 4 18. Fibrous roots in streambed 19. Rooted upland plants in streambed 20. Macrobenthos (note diversity and abundance) 	0 No Absent 3 3 0	0.5 0.5 = 0 Weak 2 2 1	1 1 Yes Moderate 1 1 2	$ \begin{array}{r} 1.5 \\ 1.5 \\ 5 = 3 \\ \hline Strong \\ 0 \\ 0 \\ 3 \\ \end{array} $	0.5 1 1 3 SCORE 1 2 1

0

0

0

Velocity: Clarity:

Bank Height (feet) Bankfull Width (feet) Water Depth (inches) Channel Substrate

0.5

0.5

0.5

FACW=0.75; OBL=1.5 Other=0

1

1

1

1.5

1.5

1.5

0

0

0

0

Sketch:

23. Crayfish

25. Algae

0 Notes:

24. Amphibians

26. Wetland plants in streambed

SDP-SA02 Stream ID:

NC DWQ Stream Identification Form Version 4.11

Date:	5/2/2022	2	Project/Site:		Seaforth Road Site	Latitude:	35.71
Evaluator:	Darnell, Beach	_	County:	Chat	nam	Longitude:	-79.0771
Total Point Stream is at leas ≥ 19 or perennia	t intermittent if	24.5	Stream Determina	-	Intermittent	other: e.g. Quad Name:	Merry Oaks

A. Geomorphology Subtotal = 13	Absent	Weak	Moderate	Strong	SCORE
1 ^a . Continuous bed and bank	0	1	2	3	3
2. Sinuosity of channel along thalweg	0	1	2	3	3
3. In-Channel structure: ex. riffle-pool, step-pool, ripple-	0	1	2	3	1
pool sequence					
4. Particle size of stream substrate	0	1	2	3	2
5. Active/relic floodplain	0	1	2	3	0
6. Depositional bars or benches	0	1	2	3	2
7. Recent alluvial deposits	0	1	2	3	0
8. Headcuts	0	1	2	3	1
9. Grade controls	0	0.5	1	1.5	0.5
10. Natural valley	0	0.5	1	1.5	0.5
11. Second or greater order channel	No	= 0	Yes = 3		0
 ^a artificial ditches are not rated; see discussions in manual. B. Hydrology Subtotal = 6.5 	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	1
13. Iron oxidizing bacteria	0	1	2	3	0
14. Leaflitter	1.5	1	0.5	0	0.5
15. Sediment on plants or debris	0	0.5	1	1.5	1
16. Organic debris lines or piles	0	0.5	1	1.5	1
17. Soil-based evidence of high water table?	No	= 0	Ye	s = 3	3
C. Biology Subtotal = 5	Absent	Weak	Moderate	Strong	SCORE
18. Fibrous roots in streambed	3	2	1	0	1
19. Rooted upland plants in streambed	3	2	1	0	3
20. Macrobenthos (note diversity and abundance)	0	1	2	3	1
21. Aquatic Mollusks	0	1	2	3	0

0

0

0

0

Velocity: Clarity:

Bank Height (feet) Bankfull Width (feet) Water Depth (inches) Channel Substrate

0.5

0.5

0.5

0.5

FACW=0.75; OBL=1.5 Other=0

1

1

1

1

1.5

1.5

1.5

1.5

0

0

0

0

0

Sketch:

22. Fish

23. Crayfish

25. Algae

0 Notes:

24. Amphibians

26. Wetland plants in streambed

Stream ID: SDP-SA2-04

1.5

1.5

1.5

0

0

0

0

NC DWQ Stream Identification Form Version 4.11

Date:	5/2/2022	2	Project/Site: Seaforth Road Site		Latitude:	35.7096	
Evaluator:	Darnell, Beach		County:	Chat	ham	Longitude:	-79.0782
Total Point Stream is at lea ≥ 19 or perenni	st intermittent if	24.5	Stream Determinat		Intermittent	other: e.g. Quad Name :	Merry Oaks

A. Geomorphology Subtotal = 12.5	Absent	Weak	Moderate	Strong	SCORE
1 ^a . Continuous bed and bank	0	1	2	3	2
2. Sinuosity of channel along thalweg	0	1	2	3	2
3. In-Channel structure: ex. riffle-pool, step-pool, ripple-	0	1	2	3	1
pool sequence					
4. Particle size of stream substrate	0	1	2	3	2
5. Active/relic floodplain	0	1	2	3	0
6. Depositional bars or benches	0	1	2	3	2
7. Recent alluvial deposits	0	1	2	3	1
8. Headcuts	0	1	2	3	1
9. Grade controls	0	0.5	1	1.5	1
10. Natural valley	0	0.5	1	1.5	0.5
11. Second or greater order channel	No = 0		Yes = 3		0
^a artificial ditches are not rated; see discussions in manual.					
B. Hydrology Subtotal = 7	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	1
12. Presence of Baseflow13. Iron oxidizing bacteria	0	1 1	2 2	3 3	1 0
	Ţ			•	•
13. Iron oxidizing bacteria	0	1	2	3	0
13. Iron oxidizing bacteria14. Leaflitter	0	1 1 1	2 0.5	3 0	0
 13. Iron oxidizing bacteria 14. Leaflitter 15. Sediment on plants or debris 	0 1.5 0	1 1 0.5 0.5	2 0.5 1 1	3 0 1.5	0 1 1
 13. Iron oxidizing bacteria 14. Leaflitter 15. Sediment on plants or debris 16. Organic debris lines or piles 17. Soil-based evidence of high water table? 	0 1.5 0 0 No	1 1 0.5 0.5	2 0.5 1 1	3 0 1.5 1.5 s = 3	0 1 1 1 3
 13. Iron oxidizing bacteria 14. Leaflitter 15. Sediment on plants or debris 16. Organic debris lines or piles 	0 1.5 0 0	1 1 0.5 0.5	2 0.5 1 1	3 0 1.5 1.5	0 1 1 1
 13. Iron oxidizing bacteria 14. Leaflitter 15. Sediment on plants or debris 16. Organic debris lines or piles 17. Soil-based evidence of high water table? 	0 1.5 0 0 No	$\frac{1}{0.5}$ 0.5 = 0	2 0.5 1 1 Ye	3 0 1.5 1.5 s = 3	0 1 1 1 3
13. Iron oxidizing bacteria 14. Leaflitter 15. Sediment on plants or debris 16. Organic debris lines or piles 17. Soil-based evidence of high water table? C. Biology Subtotal = 5	0 1.5 0 0 No Absent	1 0.5 0.5 = 0 Weak	2 0.5 1 1 Ye: Moderate	3 0 1.5 1.5 s = 3 Strong	0 1 1 1 3 SCORE
13. Iron oxidizing bacteria 14. Leaflitter 15. Sediment on plants or debris 16. Organic debris lines or piles 17. Soil-based evidence of high water table? C. Biology Subtotal = 5 18. Fibrous roots in streambed	0 1.5 0 0 No Absent 3	1 0.5 0.5 = 0 Weak 2	2 0.5 1 1 Yes Moderate	3 0 1.5 1.5 s = 3 Strong 0	0 1 1 3 SCORE 1
13. Iron oxidizing bacteria 14. Leaflitter 15. Sediment on plants or debris 16. Organic debris lines or piles 17. Soil-based evidence of high water table? C. Biology Subtotal = 5 18. Fibrous roots in streambed 19. Rooted upland plants in streambed	0 1.5 0 0 No Absent 3 3	1 0.5 0.5 = 0 Weak 2 2	2 0.5 1 1 Yes Moderate	3 0 1.5 1.5 S = 3 Strong 0 0 0	0 1 1 1 3 SCORE 1 3
 13. Iron oxidizing bacteria 14. Leaflitter 15. Sediment on plants or debris 16. Organic debris lines or piles 17. Soil-based evidence of high water table? C. Biology Subtotal = 5 18. Fibrous roots in streambed 19. Rooted upland plants in streambed 20. Macrobenthos (note diversity and abundance) 	0 1.5 0 0 No Absent 3 3 0	1 0.5 0.5 = 0 Weak 2 2 1	2 0.5 1 1 Ye: Moderate 1 1 2	$3 \\ 0 \\ 1.5 \\ 1.5 \\ s = 3$ Strong 0 \\ 0 \\ 3	0 1 1 3 SCORE 1 3 1

0

0

0

Velocity: Clarity:

Bank Height (feet) Bankfull Width (feet) Water Depth (inches) Channel Substrate

0.5

0.5

0.5

FACW=0.75; OBL=1.5 Other=0

1

1

1

Sketch:

23. Crayfish

25. Algae

0 Notes:

24. Amphibians

26. Wetland plants in streambed

SDP-SA03 Stream ID:

NC DWQ Stream Identification Form Version 4.11

Date:	5/2/2022		Project/Site: Seaforth Road Site I		Project/Site: Seaforth Road Site		Latitude:	35.7097
Evaluator:	Darnell, Beach		County:	Chat	ham	Longitude:	-79.0778	
Total Points Stream is at leas ≥ 19 or perennia	intermittent if	25	Stream Determinat		Intermittent	other: e.g. Quad Name:	Merry Oaks	

A. Geomorphology Subtotal = 13	Absent	Weak	Moderate	Strong	SCORE
1 ^a . Continuous bed and bank	0	1	2	3	2
2. Sinuosity of channel along thalweg	0	1	2	3	2
3. In-Channel structure: ex. riffle-pool, step-pool, ripple-	0	1	2	3	2
pool sequence					
4. Particle size of stream substrate	0	1	2	3	1
5. Active/relic floodplain	0	1	2	3	1
6. Depositional bars or benches	0	1	2	3	1
7. Recent alluvial deposits	0	1	2	3	1
8. Headcuts	0	1	2	3	1
9. Grade controls	0	0.5	1	1.5	1
10. Natural valley	0	0.5	1	1.5	1
11. Second or greater order channel	No	= 0	Yes = 3		0
* artificial ditches are not rated; see discussions in manual.					
B. Hydrology Subtotal = 7	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	1
13. Iron oxidizing bacteria	0	1	2	3	0
14. Leaflitter	1.5	1	0.5	0	1
15. Sediment on plants or debris	0	0.5	1	1.5	1
16. Organic debris lines or piles	0	0.5	1	1.5	1
17. Soil-based evidence of high water table?	No	= 0	Yes = 3		3
C. Biology Subtotal = 5	Absent	Weak	Moderate	Strong	SCORE
18. Fibrous roots in streambed	3	2	1	0	2
19. Rooted upland plants in streambed	3	2	1	0	2
20. Macrobenthos (note diversity and abundance)	0	1	2	3	1
21. Aquatic Mollusks	0	1	2	3	0
22. Fish	0	0.5	1	1.5	0
23. Crayfish	0	0.5	1	1.5	0
24. Amphibians	0	0.5	1	1.5	0
25. Algae	0	0.5	1	1.5	0
26. Wetland plants in streambed	FAC	W=0.75; OE	BL=1.5 Other=0		0

Notes:	Bank Height (feet)	
	Bankfull Width (feet)	
	Water Depth (inches)	
	Channel Substrate	
	Velocity:	
	Clarity:	

Stream ID: SDP-SA-03

NC DWQ Stream Identification Form Version 4.11

Date:	5/2/2022	5/2/2022		Project/Site: Seaforth Road Site		Latitude:	35.7093
Evaluator:	Darnell, Beach		County:	Chat	ham	Longitude:	-79.0785
Total Points Stream is at least ≥ 19 or perennia	intermittent if	32	Stream Determinat		Perennial	other: e.g. Quad Name:	Merry Oaks

Absent	Weak	Moderate	Strong	SCORE
0	1	2	3	3
0	1	2	3	2
0	1	2	3	2
0	1	2	3	2
0	1	2	3	2
0	1	2	3	2
0	1	2	3	2
0	1	2	3	1
0	0.5	1	1.5	1
0	0.5	1	1.5	1
No	= 0	Yes = 3		0
I				•
Absent	Weak	Moderate	Strong	SCORE
0	1	2	3	2
0	1	2	3	1
1.5	1	0.5	0	1
0	0.5	1	1.5	1
0	0.5	1	1.5	1
No	No = 0		Yes = 3	
Absent	Weak	Moderate	Strong	SCORE
3	2	1	0	2
3	2	1	0	2
0	1	2	3	1
0	1	2	3	0
0	0.5	1	1.5	0
0	0.5	1	1.5	0
0	0.5	1	1.5	0
0	0.5	1	1.5	0
FAC	W=0.75; OE	3L=1.5 Other=0		0
	0 0	0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 0.5 0 0.5 No = 0 Absent Weak 0 1 0 1.5 0 0.5 No = 0 No = 0 Absent Weak 3 2 0 0.5 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 0.5 0 0.5 0	0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 0.5 1 0 0.5 1 0 1 2 0 1 2 0 1 2 0 0.5 1 0 0.5 1 0 0.5 1 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 <t< td=""><td>0 1 2 3 0 1 2 3 0 1 2 3 0 1 2 3 0 1 2 3 0 1 2 3 0 1 2 3 0 1 2 3 0 1 2 3 0 1 2 3 0 1 2 3 0 1.5 1 1.5 0 0.5 1 1.5 No = 0 Yes = 3 3 0 0.5 1 1.5 0 0.5 1 1.5 0 0.5 1 1.5 0 0.5 1 1.5 0 0.5 1 1.5 0 1 2 3 0 1 2 3 0</td></t<>	0 1 2 3 0 1 2 3 0 1 2 3 0 1 2 3 0 1 2 3 0 1 2 3 0 1 2 3 0 1 2 3 0 1 2 3 0 1 2 3 0 1 2 3 0 1.5 1 1.5 0 0.5 1 1.5 No = 0 Yes = 3 3 0 0.5 1 1.5 0 0.5 1 1.5 0 0.5 1 1.5 0 0.5 1 1.5 0 0.5 1 1.5 0 1 2 3 0 1 2 3 0

 Notes:
 Bank Height (feet)

 Bankfull Width (feet)

 Water Depth (inches)

 Channel Substrate

 Velocity:

 Clarity:

SDP-SA3-01 Stream ID:

NC DWQ Stream Identification Form Version 4.11

Date:	5/2/2022		Project/Site:		Project/Site: Seaforth Road Site		Latitude:	35.7102
Evaluator:	Darnell, Beach		County: Chatham		Longitude:	-79.0813		
Total Poin Stream is at lea ≥ 19 or perenni	st intermittent if	25.5	Stream Determinat		Intermittent	other: e.g. Quad Name:	Merry Oaks	

A. Geomorphology Subtotal = 13.5	Absent	Weak	Moderate	Strong	SCORE
1 ^a . Continuous bed and bank	0	1	2	3	3
2. Sinuosity of channel along thalweg	0	1	2	3	2
3. In-Channel structure: ex. riffle-pool, step-pool, ripple-	0	1	2	3	1
pool sequence					
4. Particle size of stream substrate	0	1	2	3	2
5. Active/relic floodplain	0	1	2	3	0
6. Depositional bars or benches	0	1	2	3	2
7. Recent alluvial deposits	0	1	2	3	1
8. Headcuts	0	1	2	3	1
9. Grade controls	0	0.5	1	1.5	1
10. Natural valley	0	0.5	1	1.5	0.5
11. Second or greater order channel	No	= 0	Yes = 3		0
B. Hydrology Subtotal = 7	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	1
13. Iron oxidizing bacteria	0	1	2	3	0
14. Leaflitter	1.5	1	0.5	0	1
15. Sediment on plants or debris	0	0.5	1	1.5	1
16. Organic debris lines or piles	0	0.5	1	1.5	1
17. Soil-based evidence of high water table?	No	= 0	Ye	s = 3	3
C. Biology Subtotal = 5	Absent	Weak	Moderate	Strong	SCORE
18. Fibrous roots in streambed	2	2	1	0	
	3	2		U	1
19. Rooted upland plants in streambed	3	2	1	0	1 3
			•	÷	-
19. Rooted upland plants in streambed	3	2	1	0	3
 Rooted upland plants in streambed Macrobenthos (note diversity and abundance) 	3 0	2 1	1 2	03	3
 Rooted upland plants in streambed Macrobenthos (note diversity and abundance) Aquatic Mollusks 	3 0 0	2 1 1	1 2 2	0 3 3	3 1 0

0

0

Velocity: Clarity:

Bank Height (feet) Bankfull Width (feet) Water Depth (inches) Channel Substrate

0.5

0.5

FACW=0.75; OBL=1.5 Other=0

1

1

1.5

1.5

0

0

0

Sketch:

24. Amphibians

26. Wetland plants in streambed

25. Algae

0 Notes:

Stream ID: SDP-SB-02

NC DWQ Stream Identification Form Version 4.11

Date:	5/2/2022		Project/Site:		Project/Site: Seaforth Road Site		35.7139
Evaluator:	Darnell, Beach		County: Chatham		Longitude:	-79.0811	
Total Points Stream is at least ≥ 19 or perennial	intermittent if	31.5	Stream Determinat		Perennial	other: e.g. Quad Name:	Merry Oaks

Absent	Weak	Moderate	Strong	SCORE
0	1	2	3	3
0	1	2	3	3
0	1	2	3	1
0	1	2	3	1
0	1	2	3	1
0	1	2	3	2
0	1	2	3	1
0	1	2	3	1
0	0.5	1	1.5	1
0	0.5	1	1.5	0.5
No	= 0	Yes = 3		0
•				
Absent	Weak	Moderate	Strong	SCORE
	1			2
0	1			0
1.5	1		-	1
0	0.5			1
0	0.5	1		1
			Yes = 3	
Absent	Weak	Moderate	Strong	SCORE
3	2	1	0	3
3	2	1	0	2
0	1	2	3	2
0	1	2	3	0
0	0.5	1	1.5	0
0	0.5	1	1.5	1
0	0.5	1	1.5	1
0	0.5	1	1.5	0
FAC	W=0.75; OB	BL=1.5 Other=0		0
	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 0.5 0 0.5 0 0.5 0 1 0 1 0 1 0 1 0 0.5 0 0.5 0 0.5 0 0.5 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 0.5 0 0.5 0 0.5 0 0.5 0 <td>0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 0.5 1 0 0.5 1 0 0.5 1 0 1 2 0 1 2 0 0.5 1 0 0.5 1 0 0.5 1 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 0.5</td> <td>0 1 2 3 0 1 2 3 0 1 2 3 0 1 2 3 0 1 2 3 0 1 2 3 0 1 2 3 0 1 2 3 0 1 2 3 0 1 2 3 0 1 2 3 0 0.5 1 1.5 0 0.5 1 1.5 No = 0 Yes = 3 3 0 0.5 1 1.5 0 0.5 1 1.5 0 0.5 1 1.5 0 0.5 1 1.5 0 0.5 1 1.5 0 1 2 3 0 1 2 3 0</td>	0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 0.5 1 0 0.5 1 0 0.5 1 0 1 2 0 1 2 0 0.5 1 0 0.5 1 0 0.5 1 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 0.5	0 1 2 3 0 1 2 3 0 1 2 3 0 1 2 3 0 1 2 3 0 1 2 3 0 1 2 3 0 1 2 3 0 1 2 3 0 1 2 3 0 1 2 3 0 0.5 1 1.5 0 0.5 1 1.5 No = 0 Yes = 3 3 0 0.5 1 1.5 0 0.5 1 1.5 0 0.5 1 1.5 0 0.5 1 1.5 0 0.5 1 1.5 0 1 2 3 0 1 2 3 0

0

Bank Height (feet)
Bankfull Width (feet)
Water Depth (inches)
Channel Substrate
Velocity:
Clarity:

Stream ID: SDP-SB2-03

1.5

1.5

0

0

0

NC DWQ Stream Identification Form Version 4.11

Date:	5/2/2022		Project/Site:		Project/Site: Seaforth Road Site		Latitude:	35.7143
Evaluator:	Darnell, Beach		County: Chatham		Longitude:	-79.0782		
Total Point Stream is at lea ≥ 19 or perenni	st intermittent if	25.5	Stream Determinat		Intermittent	other: e.g. Quad Name:	Merry Oaks	

A. Geomorphology Subtotal = 13.5	Absent	Weak	Moderate	Strong	SCORE
1 ^a . Continuous bed and bank	0	1	2	3	3
2. Sinuosity of channel along thalweg	0	1	2	3	2
3. In-Channel structure: ex. riffle-pool, step-pool, ripple-	0	1	2	3	1
pool sequence					
4. Particle size of stream substrate	0	1	2	3	2
5. Active/relic floodplain	0	1	2	3	0
6. Depositional bars or benches	0	1	2	3	2
7. Recent alluvial deposits	0	1	2	3	1
8. Headcuts	0	1	2	3	1
9. Grade controls	0	0.5	1	1.5	1
10. Natural valley	0	0.5	1	1.5	0.5
11. Second or greater order channel	No = 0 Yes = 3		0		
* artificial ditches are not rated; see discussions in manual.			•		-
B. Hydrology Subtotal = 7	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	1
13. Iron oxidizing bacteria	0	1	2	3	0
14. Leaflitter	1.5				Ŭ
	1.0	1	0.5	0	1
15. Sediment on plants or debris	0	1 0.5	0.5 1	0 1.5	
•		•			1
15. Sediment on plants or debris16. Organic debris lines or piles17. Soil-based evidence of high water table?	0	0.5 0.5	1 1	1.5	1
16. Organic debris lines or piles17. Soil-based evidence of high water table?	0	0.5 0.5	1 1	1.5 1.5	1 1 1
 16. Organic debris lines or piles 17. Soil-based evidence of high water table? C. Biology Subtotal = 5 	0 0 No	0.5 0.5 = 0	1 1 Ye:	1.5 1.5 6 = 3	1 1 1 3
 16. Organic debris lines or piles 17. Soil-based evidence of high water table? C. Biology Subtotal = 5 18. Fibrous roots in streambed 	0 0 No Absent	0.5 0.5 = 0 Weak	1 1 Ye: Moderate	1.5 1.5 5 = 3 Strong	1 1 1 3 SCORE
 16. Organic debris lines or piles 17. Soil-based evidence of high water table? C. Biology Subtotal = 5 18. Fibrous roots in streambed 19. Rooted upland plants in streambed 	0 0 No Absent 3	0.5 0.5 = 0 Weak 2	1 1 Ye: Moderate 1	1.5 1.5 S = 3 Strong 0	1 1 1 3 SCORE 1
 16. Organic debris lines or piles 17. Soil-based evidence of high water table? C. Biology Subtotal = 5 18. Fibrous roots in streambed 19. Rooted upland plants in streambed 20. Macrobenthos (note diversity and abundance) 	0 0 No Absent 3 3	0.5 0.5 = 0 Weak 2 2	1 1 Yes Moderate 1 1	1.5 1.5 $6 = 3$ Strong 0 0	1 1 1 3 SCORE 1 3
 16. Organic debris lines or piles 17. Soil-based evidence of high water table? C. Biology Subtotal = 5 18. Fibrous roots in streambed 19. Rooted upland plants in streambed 20. Macrobenthos (note diversity and abundance) 21. Aquatic Mollusks 	0 0 No Absent 3 3 0	0.5 0.5 = 0 Weak 2 2 1	1 1 Yes Moderate 1 1 2	$ \begin{array}{r} 1.5 \\ 1.5 \\ 5 = 3 \\ \hline Strong \\ 0 \\ 0 \\ 3 \\ \end{array} $	1 1 1 3 SCORE 1 3 1
16. Organic debris lines or piles17. Soil-based evidence of high water table?	0 0 No Absent 3 3 0 0	0.5 0.5 = 0 Weak 2 2 1 1	1 1 Yes Moderate 1 1 2 2	1.5 1.5 5 = 3 Strong 0 0 3 3 3	1 1 1 3 SCORE 1 3 1 0

0

0

Velocity: Clarity:

Bank Height (feet) Bankfull Width (feet) Water Depth (inches) Channel Substrate

0.5

0.5

FACW=0.75; OBL=1.5 Other=0

1

1

Sketch:

24. Amphibians

26. Wetland plants in streambed

25. Algae

0 Notes:

Stream ID: SDP-SB-07

NC DWQ Stream Identification Form Version 4.11

Date:	5/2/2022	2	Project/Site:		Seaforth Road Site	Latitude:	35.7142
Evaluator	Darnell, Beach		County: Chatham		Longitude:	-79.0791	
Total Poin Stream is at lease ≥ 19 or perennel	ast intermittent if	32.5	Stream Determinat		Perennial	other: e.g. Quad Name:	Merry Oaks

A. Geomorphology Subtotal = 15.5	Absent	Weak	Moderate	Strong	SCORE
1 ^a . Continuous bed and bank	0	1	2	3	3
2. Sinuosity of channel along thalweg	0	1	2	3	3
3. In-Channel structure: ex. riffle-pool, step-pool, ripple-	0	1	2	3	1
pool sequence					
4. Particle size of stream substrate	0	1	2	3	2
5. Active/relic floodplain	0	1	2	3	1
6. Depositional bars or benches	0	1	2	3	2
7. Recent alluvial deposits	0	1	2	3	1
8. Headcuts	0	1	2	3	1
9. Grade controls	0	0.5	1	1.5	1
10. Natural valley	0	0.5	1	1.5	0.5
11. Second or greater order channel	No	= 0	Yes = 3		0
^a artificial ditches are not rated; see discussions in manual.					· · · · · ·
B. Hydrology Subtotal = 8	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	2
13. Iron oxidizing bacteria	0	1	2	3	0
14. Leaflitter	1.5	1	0.5	0	1
15. Sediment on plants or debris	0	0.5	1	1.5	1
16. Organic debris lines or piles	0	0.5	1	1.5	1
17. Soil-based evidence of high water table?	No	= 0	Yes = 3		3
C. Biology Subtotal = 9	Absent	Weak	Moderate	Strong	SCORE
18. Fibrous roots in streambed	3	2	1	0	3
19. Rooted upland plants in streambed	3	2	1	0	2
20. Macrobenthos (note diversity and abundance)	0	1	2	3	2
21. Aquatic Mollusks	0	1	2	3	0
22. Fish	0	0.5	1	1.5	0
23. Crayfish	0	0.5	1	1.5	1
24. Amphibians	0	0.5	1	1.5	1
25. Algae	0	0.5	1	1.5	0
26. Wetland plants in streambed	FAC	W=0.75; OB	L=1.5 Other=0		0

26. Wetland plants in streambed

Notes:	Bank Height (feet)
	Bankfull Width (feet)
	Water Depth (inches)
	Channel Substrate
	Velocity:
	Clarity:
	•

Stream ID: SDP-SB-09

1.5

0

0

NC DWQ Stream Identification Form Version 4.11

Date:	5/2/2022		Project/Site:		Project/Site: Seaforth Road Site		Latitude:	35.714
Evaluator:	Darnell, Beach		County:	County: Chatham		Longitude:	-79.0798	
Total Point Stream is at leas ≥ 19 or perennia	t intermittent if	23.5	Stream Determinat		Intermittent	other: e.g. Quad Name:	Merry Oaks	

A. Geomorphology Subtotal = 12.5	Absent	Weak	Moderate	Strong	SCORE
1 ^a . Continuous bed and bank	0	1	2	3	3
2. Sinuosity of channel along thalweg	0	1	2	3	2
3. In-Channel structure: ex. riffle-pool, step-pool, ripple- pool sequence	0	1	2	3	1
4. Particle size of stream substrate	0	1	2	3	1
5. Active/relic floodplain	0	1	2	3	0
6. Depositional bars or benches	0	1	2	3	2
7. Recent alluvial deposits	0	1	2	3	1
8. Headcuts	0	1	2	3	1
9. Grade controls	0	0.5	1	1.5	1
10. Natural valley	0	0.5	1	1.5	0.5
11. Second or greater order channel	No	= 0	Yes = 3		0
artificial ditches are not rated; see discussions in manual.					-
B. Hydrology Subtotal = 7	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	1
13. Iron oxidizing bacteria	0	1	2	3	0
14. Leaflitter	1.5	1	0.5	0	1
15. Sediment on plants or debris	0	0.5	1	1.5	1
16. Organic debris lines or piles	0	0.5	1	1.5	1
17. Soil-based evidence of high water table?	No	= 0	Ye	s = 3	3
C. Biology Subtotal = 4	Absent	Weak	Moderate	Strong	SCORE
18. Fibrous roots in streambed	3	2	1	0	1
19. Rooted upland plants in streambed	3	2	1	0	2
20. Macrobenthos (note diversity and abundance)	0	1	2	3	1
21. Aquatic Mollusks	0	1	2	3	0
22. Fish	0	0.5	1	1.5	0
23. Crayfish	0	0.5	1	1.5	0
24. Amphibians	0	0.5	1	1.5	0

26. Wetland plants in streambed

25. Algae

Bank Height (feet)	
Bankfull Width (feet)	
Water Depth (inches)	
Channel Substrate	
Velocity:	
Clarity:	
	Bankfull Width (feet) Water Depth (inches) Channel Substrate Velocity:

0

0.5

FACW=0.75; OBL=1.5 Other=0

1

Stream ID: SDP-EPH-02

NC DWQ Stream Identification Form Version 4.11

Date:	5/2/2022	2	Project/Site:		Project/Site: Seaforth Road Site		Latitude:	35.7098	
Evaluator:	Darnell, Beach	ell, Beach		County: Chatham		County: Chatham		Longitude:	-79.0775
Total Point Stream is at lea ≥ 19 or perenni	t intermittent if	14.5	Stream Determinat		Ephemeral	other: e.g. Quad Name:	Merry Oaks		

A. Geomorphology Subtotal = 8.5	Absent	Weak	Moderate	Strong	SCORE
1 ^a . Continuous bed and bank	0	1	2	3	1
2. Sinuosity of channel along thalweg	0	1	2	3	1
3. In-Channel structure: ex. riffle-pool, step-pool, ripple-	0	1	2	3	1
pool sequence					
4. Particle size of stream substrate	0	1	2	3	1
5. Active/relic floodplain	0	1	2	3	0
6. Depositional bars or benches	0	1	2	3	1
7. Recent alluvial deposits	0	1	2	3	1
8. Headcuts	0	1	2	3	1
9. Grade controls	0	0.5	1	1.5	1
10. Natural valley	0	0.5	1	1.5	0.5
11. Second or greater order channel	No	= 0	Yes = 3		0
artificial ditches are not rated; see discussions in manual.			1		1
B. Hydrology Subtotal = 3	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	0
13. Iron oxidizing bacteria	0	1	2	3	0
14. Leaflitter	1.5	1	0.5	0	1
15. Sediment on plants or debris	0	0.5	1	1.5	1
16. Organic debris lines or piles	0	0.5	1	1.5	1
17. Soil-based evidence of high water table?	No	= 0	Ye	s = 3	0
C. Biology Subtotal = 3	Absent	Weak	Moderate	Strong	SCORE
18. Fibrous roots in streambed	3	2	1	0	1
19. Rooted upland plants in streambed	3	2	1	0	2
20. Macrobenthos (note diversity and abundance)	0	1	2	3	0
21. Aquatic Mollusks	0	1	2	3	0
22. Fish	0	0.5	1	1.5	0
23. Crayfish	0	0.5	1	1.5	0
24. Amphibians	0	0.5	1	1.5	0
25. Algae	0	0.5	1	1.5	0
26. Wetland plants in streambed	FAC	W=0.75; OE	BL=1.5 Other=0		0
0					<u> </u>
	D 1 1 1 1				

Notes:	Bank Height (feet)
	Bankfull Width (feet)
	Water Depth (inches)
	Channel Substrate
	Velocity:
	Clarity:

Stream ID: SDP-EPH2-01 EPH

NC DWQ Stream Identification Form Version 4.11

Date:	5/2/2022	2	Project/Site:		Project/Site: Seaforth Road Site		35.7097
Evaluator:	Darnell, Beach	arnell, Beach County: Chath		County: Chatham		Longitude:	-79.0772
Stream is at lea	Total Points: Bream is at least intermittent if $19 \text{ or perennial if } \ge 30$ Stream Determination:				Ephemeral	other: e.g. Quad Name:	Merry Oaks

A. Geomorphology Subtotal = 7.5	Absent	Weak	Moderate	Strong	SCORE
1 ^a . Continuous bed and bank	0	1	2	3	1
2. Sinuosity of channel along thalweg	0	1	2	3	1
3. In-Channel structure: ex. riffle-pool, step-pool, ripple-	0	1	2	3	1
pool sequence					
4. Particle size of stream substrate	0	1	2	3	1
5. Active/relic floodplain	0	1	2	3	0
6. Depositional bars or benches	0	1	2	3	1
7. Recent alluvial deposits	0	1	2	3	1
8. Headcuts	0	1	2	3	0
9. Grade controls	0	0.5	1	1.5	1
10. Natural valley	0	0.5	1	1.5	0.5
11. Second or greater order channel	No	= 0	Yes = 3		0
^a artificial ditches are not rated; see discussions in manual.					J
D. Hudeslam, A. A. A.				•	
B. Hydrology Subtotal = 3	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	0
13. Iron oxidizing bacteria	0	1	2	3	0
14. Leaflitter	1.5	1	0.5	0	1
15. Sediment on plants or debris	0	0.5	1	1.5	1
16. Organic debris lines or piles	0	0.5	1	1.5	1
17. Soil-based evidence of high water table?	No	= 0	Ye	s = 3	0
C. Biology Subtotal = 3	Absent	Weak	Moderate	Strong	SCORE
18. Fibrous roots in streambed	3	2	1	0	1
19. Rooted upland plants in streambed	3	2	1	0	2
20. Macrobenthos (note diversity and abundance)	0	1	2	3	0
21. Aquatic Mollusks	0	1	2	3	0
22. Fish	0	0.5	1	1.5	0
23. Crayfish	0	0.5	1	1.5	0
24. Amphibians	0	0.5	1	1.5	0
25. Algae	0	0.5	1	1.5	0
26. Wetland plants in streambed			3L=1.5 Other=0	-	0
		,			

0 Notes: Bank Height (feet) Bankfull Width (feet) Water Depth (inches) Channel Substrate Velocity: Clarity:

Stream ID: SDP-SA2-02 EPH

NC DWQ Stream Identification Form Version 4.11

Date:	5/2/2022		Project/Site: Seaforth Road Site		Project/Site:		Latitude:	35.7099
Evaluator:	Darnell, Beach		County: Chatham		Longitude:	-79.0782		
Stream is at least	Total Points:Stream is at least intermittent if ≥ 19 or perennial if ≥ 30 14		Stream Determinat		Ephemeral	other: e.g. Quad Name:	Merry Oaks	

Absent	Weak	Moderate	Strong	SCORE
0	1	2	3	1
0	1	2	3	1
0	1	2	3	1
0	1	2	3	1
0	1	2	3	0
0	1	2	3	1
0	1	2	3	1
0	1	2	3	0
0	0.5	1	1.5	1
0	0.5	1	1.5	1
No	= 0	Yes = 3		0
		I.		
Absent	Weak	Moderate	Strong	SCORE
0	1	2	3	0
0	1	2	3	0
1.5	1	0.5	0	1
0	0.5	1	1.5	1
0	0.5	1	1.5	1
No	= 0	Ye	s = 3	0
Absent	Weak	Moderate	Strong	SCORE
3	2	1	0	1
3	2	1	0	2
0	1	2	3	0
0	1	2	3	0
0	0.5	1	1.5	0
0	0.5	1	1.5	0
0	0.5	1	1.5	0
0	0.5	1	1.5	0
FACW=0.75; OBL=1.5 Other=0				0
1	•			ļi
	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	$\begin{array}{c cccc} 0 & 1 \\ 0 & 1 \\ 0 & 1 \\ 0 & 1 \\ 0 & 1 \\ 0 & 1 \\ 0 & 1 \\ 0 & 1 \\ 0 & 1 \\ 0 & 0.5 \\ 0 & 0.5 \\ 0 & 0.5 \\ \hline No = 0 \\ \hline \end{array}$ Absent Weak 0 1 0 1 0 1 0 1 0 1 0 0.5 No = 0 Weak 0 1 0 0.5 0 0.5 0 0.5 0 0.5 0 0.5 0 0.5 0 0.5 0 0.5 0 0.5 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 0.5 0 0.5 0 0.5 0 0.5 0 0.5 0 0.5 0 0.5	0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 0.5 1 0 0.5 1 0 0.5 1 0 1 2 0 1 2 0 1 2 0 0.5 1 0 0.5 1 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 0.5	0 1 2 3 0 1 2 3 0 1 2 3 0 1 2 3 0 1 2 3 0 1 2 3 0 1 2 3 0 1 2 3 0 1 2 3 0 1 2 3 0 1 2 3 0 0.5 1 1.5 0 0.5 1 1.5 No = 0 Yes = 3 3 0 1 2 3 0 0.5 1 1.5 0 0.5 1 1.5 0 0.5 1 1.5 0 0.5 1 1.5 0 0.5 1 1.5 0 0.5 1 1.5 0 </td

 Notes:
 Bank Height (feet)

 Bankfull Width (feet)

 Water Depth (inches)

 Channel Substrate

 Velocity:

 Clarity:

Stream ID: SDP-SA3-01 EPH

NC DWQ Stream Identification Form Version 4.11

Date:	5/2/2022	5/2/2022		Project/Site: Seaforth Roa		Latitude:	35.712
Evaluator:	Darnell, Beach		County:	County: Chatham		Longitude:	-79.0805
Stream is at lea	Total Points: tream is at least intermittent if 19 or perennial if ≥ 30 Stream Determination:		Ephemeral	other: e.g. Quad Name:	Merry Oaks		

A. Geomorphology Subtotal = 8	Absent	Weak	Moderate	Strong	SCORE
1 ^a . Continuous bed and bank	0	1	2	3	1
2. Sinuosity of channel along thalweg	0	1	2	3	1
3. In-Channel structure: ex. riffle-pool, step-pool, ripple-	0	1	2	3	1
pool sequence					
4. Particle size of stream substrate	0	1	2	3	1
5. Active/relic floodplain	0	1	2	3	0
6. Depositional bars or benches	0	1	2	3	1
7. Recent alluvial deposits	0	1	2	3	1
8. Headcuts	0	1	2	3	0
9. Grade controls	0	0.5	1	1.5	1
10. Natural valley	0	0.5	1	1.5	1
11. Second or greater order channel	No	= 0	Yes = 3		0
^a artificial ditches are not rated; see discussions in manual.					1
B. Hydrology Subtotal = 3	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	0
13. Iron oxidizing bacteria	0	1	2	3	0
14. Leaflitter	1.5	1	0.5	0	1
15. Sediment on plants or debris	0	0.5	1	1.5	1
16. Organic debris lines or piles	0	0.5	1	1.5	1
17. Soil-based evidence of high water table?	No	= 0	Ye	s = 3	0
C. Biology Subtotal = 2	Absent	Weak	Moderate	Strong	SCORE
18. Fibrous roots in streambed	3	2	1	0	1
19. Rooted upland plants in streambed	3	2	1	0	1
20. Macrobenthos (note diversity and abundance)	0	1	2	3	0
21. Aquatic Mollusks	0	1	2	3	0
22. Fish	0	0.5	1	1.5	0
23. Crayfish	0	0.5	1	1.5	0
24. Amphibians	0	0.5	1	1.5	0
25. Algae	0	0.5	1	1.5	0
26. Wetland plants in streambed	FACW=0.75; OBL=1.5 Other=0				0
0	1				

 Notes:
 Bank Height (feet)

 Bankfull Width (feet)

 Water Depth (inches)

 Channel Substrate

 Velocity:

 Clarity:

Stream ID: SDP-SA3-02 EPH

NC DWQ Stream Identification Form Version 4.11

Date:	5/2/2022	2	Project/Site:		Project/Site: Seaforth Road Site		35.712
Evaluator	Darnell, Beach		County: Chatham		Longitude:	-79.0805	
Stream is at le	Total Points: Stream is at least intermittent if ≥ 19 or perennial if ≥ 30 Stream Determination:			Ephemeral	other: e.g. Quad Name :	Merry Oaks	

A. Geomorphology Subtotal = 8	Absent	Weak	Moderate	Strong	SCORE
1 ^a . Continuous bed and bank	0	1	2	3	1
2. Sinuosity of channel along thalweg	0	1	2	3	1
3. In-Channel structure: ex. riffle-pool, step-pool, ripple-	0	1	2	3	1
pool sequence					
4. Particle size of stream substrate	0	1	2	3	1
5. Active/relic floodplain	0	1	2	3	0
6. Depositional bars or benches	0	1	2	3	1
7. Recent alluvial deposits	0	1	2	3	1
8. Headcuts	0	1	2	3	0
9. Grade controls	0	0.5	1	1.5	1
10. Natural valley	0	0.5	1	1.5	1
11. Second or greater order channel	No	= 0	Yes = 3		0
^a artificial ditches are not rated; see discussions in manual.					
B. Hydrology Subtotal = 3	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	0
13. Iron oxidizing bacteria	0	1	2	3	0
14. Leaflitter	1.5	1	0.5	0	1
15. Sediment on plants or debris	0	0.5	1	1.5	1
16. Organic debris lines or piles	0	0.5	1	1.5	1
17. Soil-based evidence of high water table?		= 0	Yes = 3		0
C. Biology Subtotal = 2	Absent	Weak	Moderate	Strong	SCORE
18. Fibrous roots in streambed	3	2	1	0	1
19. Rooted upland plants in streambed	3	2	1	0	1
20. Macrobenthos (note diversity and abundance)	0	1	2	3	0
21. Aquatic Mollusks	0	1	2	3	0
22. Fish	0	0.5	1	1.5	0
23. Crayfish	0	0.5	1	1.5	0
24. Amphibians	0	0.5	1	1.5	0
25. Algae	0	0.5	1	1.5	0
26. Wetland plants in streambed	FAC	W=0.75; OE	3L=1.5 Other=0		0

0

Notes:	Bank Height (feet)	
	Bankfull Width (feet)	
	Water Depth (inches)	
	Channel Substrate	
	Velocity:	
	Clarity:	

Stream ID: SDP-SA3-03 EPH

NC DWQ Stream Identification Form Version 4.11

Date:	5/2/2022	2	Project/Site:		Project/Site: Seaforth Road Site		35.7112
Evaluator:	Darnell, Beach		County: Chatham		Longitude:	-79.0809	
Total Point Stream is at leas ≥ 19 or perennia	t intermittent if	13	Stream Determinat		Ephemeral	Other: e.g. Quad Name:	Merry Oaks

A. Geomorphology Subtotal = 8	Absent	Weak	Moderate	Strong	SCORE
1 ^a . Continuous bed and bank	0	1	2	3	1
2. Sinuosity of channel along thalweg	0	1	2	3	1
3. In-Channel structure: ex. riffle-pool, step-pool, ripple-	0	1	2	3	1
pool sequence					
4. Particle size of stream substrate	0	1	2	3	1
5. Active/relic floodplain	0	1	2	3	0
6. Depositional bars or benches	0	1	2	3	1
7. Recent alluvial deposits	0	1	2	3	1
8. Headcuts	0	1	2	3	0
9. Grade controls	0	0.5	1	1.5	1
10. Natural valley	0	0.5	1	1.5	1
11. Second or greater order channel	No	= 0	Yes = 3		0
^a artificial ditches are not rated; see discussions in manual.	•				
B. Hydrology Subtotal = 3	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	0
13. Iron oxidizing bacteria	0	1	2	3	0
14. Leaflitter	1.5	1	0.5	0	1
15. Sediment on plants or debris	0	0.5	1	1.5	1
16. Organic debris lines or piles	0	0.5	1	1.5	1
17. Soil-based evidence of high water table?	No	= 0	Yes = 3		0
C. Biology Subtotal = 2	Absent	Weak	Moderate	Strong	SCORE
18. Fibrous roots in streambed	3	2	1	0	1
19. Rooted upland plants in streambed	3	2	1	0	1
20. Macrobenthos (note diversity and abundance)	0	1	2	3	0
21. Aquatic Mollusks	0	1	2	3	0
22. Fish	0	0.5	1	1.5	0
23. Crayfish	0	0.5	1	1.5	0
24. Amphibians	0	0.5	1	1.5	0
25. Algae	0	0.5	1	1.5	0
26. Wetland plants in streambed	FAC	N=0.75; OB	L=1.5 Other=0		0
	1				

0
Notes:
Bank Height (feet)
Bankfull Width (feet)
Water Depth (inches)
Channel Substrate
Velocity:
Clarity:

Stream ID: SDP-SA3-04 EPH

NC DWQ Stream Identification Form Version 4.11

Date:	5/2/2022	2	Project/Site:		Project/Site: Seaforth Road Site		35.7112
Evaluator:	Darnell, Beach		County: Chatham		Longitude:	-79.0809	
Total Point Stream is at leas ≥ 19 or perennia	t intermittent if	12	Stream Determinat		Ephemeral	Other: e.g. Quad Name:	Merry Oaks

A. Geomorphology Subtotal = 8	Absent	Weak	Moderate	Strong	SCORE
1 ^a . Continuous bed and bank	0	1	2	3	1
2. Sinuosity of channel along thalweg	0	1	2	3	1
3. In-Channel structure: ex. riffle-pool, step-pool, ripple-	0	1	2	3	1
pool sequence					
4. Particle size of stream substrate	0	1	2	3	1
5. Active/relic floodplain	0	1	2	3	0
6. Depositional bars or benches	0	1	2	3	1
7. Recent alluvial deposits	0	1	2	3	1
8. Headcuts	0	1	2	3	0
9. Grade controls	0	0.5	1	1.5	1
10. Natural valley	0	0.5	1	1.5	1
11. Second or greater order channel	No	= 0	Yes = 3		0
^a artificial ditches are not rated; see discussions in manual.					1
B. Hydrology Subtotal = 2	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	0
13. Iron oxidizing bacteria	0	1	2	3	0
14. Leaflitter	1.5	1	0.5	0	1
15. Sediment on plants or debris	0	0.5	1	1.5	1
16. Organic debris lines or piles	0	0.5	1	1.5	0
17. Soil-based evidence of high water table?	No	= 0	Yes = 3		0
C. Biology Subtotal = 2	Absent	Weak	Moderate	Strong	SCORE
18. Fibrous roots in streambed	3	2	1	0	1
19. Rooted upland plants in streambed	3	2	1	0	1
20. Macrobenthos (note diversity and abundance)	0	1	2	3	0
21. Aquatic Mollusks	0	1	2	3	0
22. Fish	0	0.5	1	1.5	0
23. Crayfish	0	0.5	1	1.5	0
24. Amphibians	0	0.5	1	1.5	0
25. Algae	0	0.5	1	1.5	0
26. Wetland plants in streambed	FAC	W=0.75; OE	BL=1.5 Other=0		0
0	1				
	— • • • • •				

 Notes:
 Bank Height (feet)

 Bankfull Width (feet)

 Water Depth (inches)

 Channel Substrate

 Velocity:

 Clarity:

Stream ID: SDP-SA3-05 EPH

NC DWQ Stream Identification Form Version 4.11

Date:	5/2/2022	2	Project/Site:		Project/Site: Seaforth Road Site		35.7108
Evaluator:	Darnell, Beach		County: Chatham		Longitude:	-79.0811	
Total Points Stream is at lease ≥ 19 or perennia	intermittent if	12	Stream Determinat		Ephemeral	other: e.g. Quad Name:	Merry Oaks

A. Geomorphology Subtotal = 8	Absent	Weak	Moderate	Strong	SCORE
1 ^a . Continuous bed and bank	0	1	2	3	1
2. Sinuosity of channel along thalweg	0	1	2	3	1
3. In-Channel structure: ex. riffle-pool, step-pool, ripple-	0	1	2	3	1
pool sequence					
4. Particle size of stream substrate	0	1	2	3	1
5. Active/relic floodplain	0	1	2	3	0
6. Depositional bars or benches	0	1	2	3	1
7. Recent alluvial deposits	0	1	2	3	1
8. Headcuts	0	1	2	3	0
9. Grade controls	0	0.5	1	1.5	1
10. Natural valley	0	0.5	1	1.5	1
11. Second or greater order channel	No	= 0	Yes = 3		0
^a artificial ditches are not rated; see discussions in manual.			1		•
B. Hydrology Subtotal = 2	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	0
13. Iron oxidizing bacteria	0	1	2	3	0
14. Leaflitter	1.5	1	0.5	0	1
15. Sediment on plants or debris	0	0.5	1	1.5	1
16. Organic debris lines or piles	0	0.5	1	1.5	0
17. Soil-based evidence of high water table?	No	= 0	Ye	s = 3	0
C. Biology Subtotal = 2	Absent	Weak	Moderate	Strong	SCORE
18. Fibrous roots in streambed	3	2	1	0	1
19. Rooted upland plants in streambed	3	2	1	0	1
20. Macrobenthos (note diversity and abundance)	0	1	2	3	0
21. Aquatic Mollusks	0	1	2	3	0
22. Fish	0	0.5	1	1.5	0
23. Crayfish	0	0.5	1	1.5	0
24. Amphibians	0	0.5	1	1.5	0
25. Algae	0	0.5	1	1.5	0
26. Wetland plants in streambed	FAC	W=0.75; OE	3L=1.5 Other=0		0
0					ļ.

 Notes:
 Bank Height (feet)

 Bankfull Width (feet)

 Water Depth (inches)

 Channel Substrate

 Velocity:

 Clarity:

Stream ID: SDP-SA3-06 EPH

NC DWQ Stream Identification Form Version 4.11

Date:	5/2/2022	2	Project/Site:		Project/Site: Seaforth Road Site		Seaforth Road Site	Latitude:	35.71
Evaluator:	Darnell, Beach		County: Chatham		Longitude:	-79.0813			
Total Points Stream is at least ≥ 19 or perennial	intermittent if	13	Stream Determinat		Ephemeral	other: e.g. Quad Name:			

A. Geomorphology Subtotal = 9	Absent	Weak	Moderate	Strong	SCORE
1 ^a . Continuous bed and bank	0	1	2	3	1
2. Sinuosity of channel along thalweg	0	1	2	3	1
3. In-Channel structure: ex. riffle-pool, step-pool, ripple-	0	1	2	3	1
pool sequence					
4. Particle size of stream substrate	0	1	2	3	1
5. Active/relic floodplain	0	1	2	3	1
6. Depositional bars or benches	0	1	2	3	1
7. Recent alluvial deposits	0	1	2	3	1
8. Headcuts	0	1	2	3	0
9. Grade controls	0	0.5	1	1.5	1
10. Natural valley	0	0.5	1	1.5	1
11. Second or greater order channel	No	= 0	Yes = 3		0
° artificial ditches are not rated; see discussions in manual.					
B. Hydrology Subtotal = 2	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	0
13. Iron oxidizing bacteria	0	1	2	3	0
14. Leaflitter	1.5	1	0.5	0	1
15. Sediment on plants or debris	0	0.5	1	1.5	1
16. Organic debris lines or piles	0	0.5	1	1.5	0
17. Soil-based evidence of high water table?	No	= 0	Yes = 3		0
C. Biology Subtotal = 2	Absent	Weak	Moderate	Strong	SCORE
18. Fibrous roots in streambed	3	2	1	0	1
19. Rooted upland plants in streambed	3	2	1	0	1
20. Macrobenthos (note diversity and abundance)	0	1	2	3	0
21. Aquatic Mollusks	0	1	2	3	0
22. Fish	0	0.5	1	1.5	0
23. Crayfish	0	0.5	1	1.5	0
24. Amphibians	0	0.5	1	1.5	0
25. Algae	0	0.5	1	1.5	0
26. Wetland plants in streambed	FAC	W=0.75; OB	L=1.5 Other=0		0
0					.
Notes:	Bank Heigh	it (feet)			

Notes:	Bank Height (feet)
	Bankfull Width (feet)
	Water Depth (inches)
	Channel Substrate
	Velocity:
	Clarity:

Stream ID: SDP-SA3-07 EPH

NC DWQ Stream Identification Form Version 4.11

Date:	5/2/2022 Pro		Project/Site: S		Project/Site: Seaforth Road Site		35.7099
Evaluator:	Darnell, Beach		County: Chatham		Longitude:	-79.0813	
Total Point Stream is at lea ≥ 19 or perenni	st intermittent if	13	Stream Determinat		Ephemeral	other: e.g. Quad Name:	

A. Geomorphology Subtotal = 9	Absent	Weak	Moderate	Strong	SCORE
1 ^a . Continuous bed and bank	0	1	2	3	1
2. Sinuosity of channel along thalweg	0	1	2	3	1
3. In-Channel structure: ex. riffle-pool, step-pool, ripple-	0	1	2	3	1
pool sequence					
4. Particle size of stream substrate	0	1	2	3	1
5. Active/relic floodplain	0	1	2	3	1
6. Depositional bars or benches	0	1	2	3	1
7. Recent alluvial deposits	0	1	2	3	1
8. Headcuts	0	1	2	3	0
9. Grade controls	0	0.5	1	1.5	1
10. Natural valley	0	0.5	1	1.5	1
11. Second or greater order channel	No	= 0	Yes = 3		0
^a artificial ditches are not rated; see discussions in manual.					
B. Hydrology Subtotal = 2	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	0
13. Iron oxidizing bacteria	0	1	2	3	0
14. Leaflitter	1.5	1	0.5	0	1
15. Sediment on plants or debris	0	0.5	1	1.5	1
16. Organic debris lines or piles	0	0.5	1	1.5	0
17. Soil-based evidence of high water table?	No = 0		Yes = 3		0
C. Biology Subtotal = 2	Absent	Weak	Moderate	Strong	SCORE
18. Fibrous roots in streambed	3	2	1	0	1
19. Rooted upland plants in streambed	3	2	1	0	1
20. Macrobenthos (note diversity and abundance)	0	1	2	3	0
21. Aquatic Mollusks	0	1	2	3	0
22. Fish	0	0.5	1	1.5	0
23. Crayfish	0	0.5	1	1.5	0
24. Amphibians	0	0.5	1	1.5	0
25. Algae	0	0.5	1	1.5	0
26. Wetland plants in streambed	FAC	W=0.75; OE	3L=1.5 Other=0		0
0					-
Notes:	Bank Heigh	t (feet)			

Notes:	Bank Height (feet)	
	Bankfull Width (feet)	
	Water Depth (inches)	
	Channel Substrate	
	Velocity:	
	Clarity:	
		-

Stream ID: SDP-SB-01 EPH

NC DWQ Stream Identification Form Version 4.11

Date:	5/2/2022	2	Project/Site:		Project/Site: Seaforth Road Site		35.7143
Evaluator:	Darnell, Beach		County:	ounty: Chatham		Longitude:	-79.0773
Total Points: Stream is at least intermittent if ≥ 19 or perennial if ≥ 30		10	Stream Determinat		Ephemeral	Other: e.g. Quad Name:	

A. Geomorphology Subtotal = 7	Absent	Weak	Moderate	Strong	SCORE
1 ^a . Continuous bed and bank	0	1	2	3	1
2. Sinuosity of channel along thalweg	0	1	2	3	1
3. In-Channel structure: ex. riffle-pool, step-pool, ripple-	0	1	2	3	1
pool sequence					
4. Particle size of stream substrate	0	1	2	3	1
5. Active/relic floodplain	0	1	2	3	0
6. Depositional bars or benches	0	1	2	3	1
7. Recent alluvial deposits	0	1	2	3	0
8. Headcuts	0	1	2	3	0
9. Grade controls	0	0.5	1	1.5	1
10. Natural valley	0	0.5	1	1.5	1
11. Second or greater order channel	No	= 0	Yes = 3		0
artificial ditches are not rated; see discussions in manual.					
B. Hydrology Subtotal = 1	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	0
13. Iron oxidizing bacteria	0	1	2	3	0
14. Leaflitter	1.5	1	0.5	0	0
15. Sediment on plants or debris	0	0.5	1	1.5	1
16. Organic debris lines or piles	0	0.5	1	1.5	0
17. Soil-based evidence of high water table?	No = 0 Yes = 3		s = 3	0	
C. Biology Subtotal = 2	Absent	Weak	Moderate	Strong	SCORE
18. Fibrous roots in streambed	3	2	1	0	1
19. Rooted upland plants in streambed	3	2	1	0	1
20. Macrobenthos (note diversity and abundance)	0	1	2	3	0
21. Aquatic Mollusks	0	1	2	3	0
22. Fish	0	0.5	1	1.5	0
23. Crayfish	0	0.5	1	1.5	0
24. Amphibians	0	0.5	1	1.5	0
25. Algae	0	0.5	1	1.5	0
26. Wetland plants in streambed	_		3L=1.5 Other=0	-	0
0	·				•
Notes:	Bank Heigh	t (feet)			

Notes:	Bank Height (feet)
	Bankfull Width (feet)
	Water Depth (inches)
	Channel Substrate
	Velocity:
	Clarity:
	Clarity:

Stream ID: SDP-SB1-02 EPH

NC DWQ Stream Identification Form Version 4.11

Date:	5/2/2022	2	Project/Site:		Project/Site: Seaforth Road Site		35.7143
Evaluator:	Darnell, Beach		County:	County: Chatham		Longitude:	-79.0767
Total Points: Stream is at least intermittent if ≥ 19 or perennial if ≥ 30		11	Stream Determinat		Ephemeral	Other: e.g. Quad Name:	

A. Geomorphology Subtotal = 8	Absent	Weak	Moderate	Strong	SCORE
1 ^a . Continuous bed and bank	0	1	2	3	1
2. Sinuosity of channel along thalweg	0	1	2	3	1
3. In-Channel structure: ex. riffle-pool, step-pool, ripple-	0	1	2	3	1
pool sequence					
4. Particle size of stream substrate	0	1	2	3	1
5. Active/relic floodplain	0	1	2	3	1
6. Depositional bars or benches	0	1	2	3	1
7. Recent alluvial deposits	0	1	2	3	0
8. Headcuts	0	1	2	3	0
9. Grade controls	0	0.5	1	1.5	1
10. Natural valley	0	0.5	1	1.5	1
11. Second or greater order channel	No	= 0	Yes = 3		0
^a artificial ditches are not rated; see discussions in manual.					
B. Hydrology Subtotal = 1	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	0
13. Iron oxidizing bacteria	0	1	2	3	0
14. Leaflitter	1.5	1	0.5	0	0
15. Sediment on plants or debris	0	0.5	1	1.5	1
16. Organic debris lines or piles	0	0.5	1	1.5	0
17. Soil-based evidence of high water table?		No = 0		Yes = 3	
		-			
C. Biology Subtotal = 2	Absent	Weak	Moderate	Strong	SCORE
18. Fibrous roots in streambed	3	2	1	0	1
19. Rooted upland plants in streambed	3	2	1	0	1
20. Macrobenthos (note diversity and abundance)	0	1	2	3	0
21. Aquatic Mollusks	0	1	2	3	0
22. Fish	0	0.5	1	1.5	0
23. Crayfish	0	0.5	1	1.5	0
24. Amphibians	0	0.5	1	1.5	0
25. Algae	0	0.5	1	1.5	0
26. Wetland plants in streambed	FAC	W=0.75; OE	BL=1.5 Other=0		0
0	1				<u> </u>
Notes:	Bank Heigh	nt (feet)			

Notes:	Bank Height (feet)	
	Bankfull Width (feet)	
	Water Depth (inches)	
	Channel Substrate	
	Velocity:	
	Clarity:	

Stream ID: SDP-SB2-02 EPH

NC DWQ Stream Identification Form Version 4.11

Date:	5/2/2022	2	Project/Site:		Seaforth Road Site	Latitude:	35.7144
Evaluator:	Darnell, Beach		County: Chatham		Longitude:	-79.0782	
Total Point Stream is at leas ≥ 19 or perennia	t intermittent if	12	Stream Determinat		Ephemeral	other: e.g. Quad Name:	

A. Geomorphology Subtotal = 9	Absent	Weak	Moderate	Strong	SCORE
1 ^a . Continuous bed and bank	0	1	2	3	1
2. Sinuosity of channel along thalweg	0	1	2	3	1
3. In-Channel structure: ex. riffle-pool, step-pool, ripple-	0	1	2	3	1
pool sequence					
4. Particle size of stream substrate	0	1	2	3	1
5. Active/relic floodplain	0	1	2	3	1
6. Depositional bars or benches	0	1	2	3	1
7. Recent alluvial deposits	0	1	2	3	1
8. Headcuts	0	1	2	3	0
9. Grade controls	0	0.5	1	1.5	1
10. Natural valley	0	0.5	1	1.5	1
11. Second or greater order channel	No	= 0	Yes = 3		0
artificial ditches are not rated; see discussions in manual.			I.		
B. Hydrology Subtotal = 1	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	0
13. Iron oxidizing bacteria	0	1	2	3	0
14. Leaflitter	1.5	1	0.5	0	0
15. Sediment on plants or debris	0	0.5	1	1.5	1
16. Organic debris lines or piles	0	0.5	1	1.5	0
17. Soil-based evidence of high water table?	No	= 0	Ye	s = 3	0
C. Biology Subtotal = 2	Absent	Weak	Moderate	Strong	SCORE
18. Fibrous roots in streambed	3	2	1	0	1
19. Rooted upland plants in streambed	3	2	1	0	1
20. Macrobenthos (note diversity and abundance)	0	1	2	3	0
21. Aquatic Mollusks	0	1	2	3	0
22. Fish	0	0.5	1	1.5	0
23. Crayfish	0	0.5	1	1.5	0
24. Amphibians	0	0.5	1	1.5	0
25. Algae	0	0.5	1	1.5	0
26. Wetland plants in streambed	FAC	W=0.75; OB	3L=1.5 Other=0		0
0		, -			ļ
Notes:	Bank Heigh	it (feet)			

Notes:	Bank Height (feet)
	Bankfull Width (feet)
	Water Depth (inches)
	Channel Substrate
	Velocity:
	Clarity:

Stream ID: SDP-SB3-01 EPH

NC DWQ Stream Identification Form Version 4.11

Date:	5/2/2022	2	Project/Site:		Seaforth Road Site	Latitude:	35.7137
Evaluator:	Darnell, Beach		County:	ounty: Chatham		Longitude:	-79.0788
Total Point Stream is at lea ≥ 19 or perenni	st intermittent if	11	Stream Determinat		Ephemeral	other: e.g. Quad Name:	

A. Geomorphology Subtotal = 8	Absent	Weak	Moderate	Strong	SCORE
1 ^a . Continuous bed and bank	0	1	2	3	1
2. Sinuosity of channel along thalweg	0	1	2	3	1
3. In-Channel structure: ex. riffle-pool, step-pool, ripple-	0	1	2	3	1
pool sequence					
4. Particle size of stream substrate	0	1	2	3	1
5. Active/relic floodplain	0	1	2	3	1
6. Depositional bars or benches	0	1	2	3	1
7. Recent alluvial deposits	0	1	2	3	0
8. Headcuts	0	1	2	3	0
9. Grade controls	0	0.5	1	1.5	1
10. Natural valley	0	0.5	1	1.5	1
11. Second or greater order channel	No	= 0	Yes = 3		0
° artificial ditches are not rated; see discussions in manual.			I		•
B. Hydrology Subtotal = 1	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	0
13. Iron oxidizing bacteria	0	1	2	3	0
14. Leaflitter	1.5	1	0.5	0	0
15. Sediment on plants or debris	0	0.5	1	1.5	1
16. Organic debris lines or piles	0	0.5	1	1.5	0
17. Soil-based evidence of high water table?	No = 0		Ye	Yes = 3	
C. Biology Subtotal = 2	Absent	Weak	Moderate	Strong	SCORE
18. Fibrous roots in streambed	3	2	1	0	1
19. Rooted upland plants in streambed	3	2	1	0	1
20. Macrobenthos (note diversity and abundance)	0	1	2	3	0
21. Aquatic Mollusks	0	1	2	3	0
22. Fish	0	0.5	1	1.5	0
23. Crayfish	0	0.5	1	1.5	0
24. Amphibians	0	0.5	1	1.5	0
25. Algae	0	0.5	1	1.5	0
26. Wetland plants in streambed	FAC	W=0.75; OE	3L=1.5 Other=0		0
0					
Notes:	Bank Heigh	nt (feet)			

Notes:	Bank Height (leet)
	Bankfull Width (feet)
	Water Depth (inches)
	Channel Substrate
	Velocity:
	Clarity:

Stream ID: SDP-SB5-01 EPH

NC DWQ Stream Identification Form Version 4.11

Date:	5/2/2022		Project/Site: Seaforth Road Site		Latitude:	35.7099	
Evaluator:	Darnell, Beach		County: Chatham		Longitude:	-79.0813	
Total Point Stream is at lea ≥ 19 or perenni	st intermittent if	11	Stream Determinat		Ephemeral	other: e.g. Quad Name:	

A. Geomorphology Subtotal = 8	Absent	Weak	Moderate	Strong	SCORE
1 ^ª . Continuous bed and bank	0	1	2	3	1
2. Sinuosity of channel along thalweg	0	1	2	3	1
3. In-Channel structure: ex. riffle-pool, step-pool, ripple-	0	1	2	3	1
pool sequence					
4. Particle size of stream substrate	0	1	2	3	1
5. Active/relic floodplain	0	1	2	3	1
6. Depositional bars or benches	0	1	2	3	1
7. Recent alluvial deposits	0	1	2	3	0
8. Headcuts	0	1	2	3	0
9. Grade controls	0	0.5	1	1.5	1
10. Natural valley	0	0.5	1	1.5	1
11. Second or greater order channel	No	= 0	Yes = 3		0
^a artificial ditches are not rated; see discussions in manual.			1		
B. Hydrology Subtotal = 1	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	0
13. Iron oxidizing bacteria	0	1	2	3	0
14. Leaflitter	1.5	1	0.5	0	0
15. Sediment on plants or debris	0	0.5	1	1.5	1
16. Organic debris lines or piles	0	0.5	1	1.5	0
17. Soil-based evidence of high water table?	No	= 0	Ye	6 = 3	0
C. Biology Subtotal = 2	Absent	Weak	Moderate	Strong	SCORE
18. Fibrous roots in streambed	3	2	1	0	1
19. Rooted upland plants in streambed	3	2	1	0	1
20. Macrobenthos (note diversity and abundance)	0	1	2	3	0
21. Aquatic Mollusks	0	1	2	3	0
22. Fish	0	0.5	1	1.5	0
23. Crayfish	0	0.5	1	1.5	0
24. Amphibians	0	0.5	1	1.5	0
25. Algae	0	0.5	1	1.5	0
26. Wetland plants in streambed	-		3L=1.5 Other=0	-	0
0		, -			<u>I</u>
Notes:	Bank Heigh	nt (feet)			

Notes:	Bank Height (feet)	
	Bankfull Width (feet)	
	Water Depth (inches)	
	Channel Substrate	
	Velocity:	
	Clarity:	

Stream ID: SDP-SB6-01 EPH

NC DWQ Stream Identification Form Version 4.11

Date:	5/2/2022		Project/Site: Seaforth Road Site		Project/Site:		Latitude:	35.7099
Evaluator:	Darnell, Beach		County: Chatham		Longitude:	-79.0813		
Total Point Stream is at leas ≥ 19 or perennia	t intermittent if	12	Stream Determinat		Ephemeral	other: e.g. Quad Name:		

A. Geomorphology Subtotal = 8	Absent	Weak	Moderate	Strong	SCORE
1 ^a . Continuous bed and bank	0	1	2	3	1
2. Sinuosity of channel along thalweg	0	1	2	3	1
3. In-Channel structure: ex. riffle-pool, step-pool, ripple-	0	1	2	3	1
pool sequence					
4. Particle size of stream substrate	0	1	2	3	1
5. Active/relic floodplain	0	1	2	3	1
6. Depositional bars or benches	0	1	2	3	1
7. Recent alluvial deposits	0	1	2	3	0
8. Headcuts	0	1	2	3	0
9. Grade controls	0	0.5	1	1.5	1
10. Natural valley	0	0.5	1	1.5	1
11. Second or greater order channel	No	= 0	Yes = 3		0
^a artificial ditches are not rated; see discussions in manual.					
B. Hydrology Subtotal = 2	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	0
13. Iron oxidizing bacteria	0	1	2	3	0
14. Leaflitter	1.5	1	0.5	0	1
15. Sediment on plants or debris	0	0.5	1	1.5	1
16. Organic debris lines or piles	0	0.5	1	1.5	0
17. Soil-based evidence of high water table?	No	= 0	Ye	s = 3	0
C. Biology Subtotal = 2	Absent	Weak	Moderate	Strong	SCORE
18. Fibrous roots in streambed	3	2	1	0	1
19. Rooted upland plants in streambed	3	2	1	0	1
20. Macrobenthos (note diversity and abundance)	0	1	2	3	0
21. Aquatic Mollusks	0	1	2	3	0
22. Fish	0	0.5	1	1.5	0
23. Crayfish	0	0.5	1	1.5	0
24. Amphibians	0	0.5	1	1.5	0
25. Algae	0	0.5	1	1.5	0
26. Wetland plants in streambed	FAC	W=0.75; OE	3L=1.5 Other=0		0
0	Donk Hoigh				

 Notes:
 Bank Height (feet)

 Bankfull Width (feet)

 Water Depth (inches)

 Channel Substrate

 Velocity:

 Clarity:

Stream ID: SDP-SB-10 EPH

NC DWQ Stream Identification Form Version 4.11

Date:	5/2/2022	5/2/2022 Project/Site:		Project/Site: Seaforth Road Site		Latitude:	35.714
Evaluator:	Darnell, Beach		County: Chatham		Longitude:	-79.0804	
Total Point Stream is at leas ≥ 19 or perennia	t intermittent if	11	Stream Determination:		Ephemeral	other: e.g. Quad Name:	

A. Geomorphology Subtotal = 8	Absent	Weak	Moderate	Strong	SCORE
1 ^a . Continuous bed and bank	0	1	2	3	1
2. Sinuosity of channel along thalweg	0	1	2	3	1
3. In-Channel structure: ex. riffle-pool, step-pool, ripple-	0	1	2	3	1
pool sequence					
4. Particle size of stream substrate	0	1	2	3	1
5. Active/relic floodplain	0	1	2	3	1
6. Depositional bars or benches	0	1	2	3	1
7. Recent alluvial deposits	0	1	2	3	0
8. Headcuts	0	1	2	3	0
9. Grade controls	0	0.5	1	1.5	1
10. Natural valley	0	0.5	1	1.5	1
11. Second or greater order channel	No	= 0	Yes = 3		0
^a artificial ditches are not rated; see discussions in manual.					•
B. Hydrology Subtotal = 1	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	0
13. Iron oxidizing bacteria	0	1	2	3	0
14. Leaflitter	1.5	1	0.5	0	0
15. Sediment on plants or debris	0	0.5	1	1.5	1
16. Organic debris lines or piles	0	0.5	1	1.5	0
17. Soil-based evidence of high water table?	No = 0 Y			s = 3	0
C. Biology Subtotal = 2	Absent	Weak	Moderate	Strong	SCORE
18. Fibrous roots in streambed	3	2	1	0	1
19. Rooted upland plants in streambed	3	2	1	0	1
20. Macrobenthos (note diversity and abundance)	0	1	2	3	0
21. Aquatic Mollusks	0	1	2	3	0
22. Fish	0	0.5	1	1.5	0
23. Crayfish	0	0.5	1	1.5	0
24. Amphibians	0	0.5	1	1.5	0
25. Algae	0	0.5	1	1.5	0
26. Wetland plants in streambed	FAC		3L=1.5 Other=0		0
0					ļ
Notes:	Bank Heigh	nt (feet)			

Notes:	Bank Height (leet)
	Bankfull Width (feet)
	Water Depth (inches)
	Channel Substrate
	Velocity:
	Clarity: