

# STREAM 2-29

## NC DWQ Stream Identification Form Version 4.11

Date: 2/8/19	Project/Site: 1277 Revolution	Latitude:
Evaluator: TY, KP	County: Beaver	Longitude:
Total Points: Stream is at least intermittent if $\geq 19$ or perennial if $\geq 30^*$ 22	Stream Determination (circle one) Ephemeral <u>intermittent</u> Perennial	Other e.g. Quad Name:

### A. Geomorphology (Subtotal = 12.5)

	Absent	Weak	Moderate	Strong
1 <sup>a</sup> 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	0	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	

<sup>a</sup>artificial ditches are not rated; see discussions in manual

### B. Hydrology (Subtotal = 3)

12. Presence of Baseflow	0	1	(2)	3
13. Iron oxidizing bacteria	(0)	1	2	3
14. Leaf litter	1.5	(1)	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 = 10.5)

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; <u>OBL = 1.5</u> Other = 0			

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

#### Notes:

Sketch:

9-43.1

NC DWQ Stream Identification Form Version 4.11

Date: <u>2/9/18</u>	Project/Site: 1277 Revolution	Latitude:
Evaluator: <u>TYLER RUSSELL</u>	County: <u>BUTLER</u>	Longitude:
Total Points: Stream is at least intermittent if $\geq 19$ or perennial if $\geq 30$ * <u>8.75</u>	Stream Determination (circle one) Ephemeral Intermittent Perennial	Other <u>9-43.1</u> e.g. Quad Name:

A. Geomorphology (Subtotal = 5)

	Absent	Weak	Moderate	Strong
1 <sup>a</sup> 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	(0)	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 <sup>a</sup>	(1)	1.5
10. Natural valley	(0)	0.5	1	1.5
11. Second or greater order channel	(No = 0)		Yes = 3	

<sup>a</sup> artificial ditches are not rated; see discussions in manual

B. Hydrology (Subtotal = 1)

12. Presence of Baseflow	(0)	1	2	3
13. Iron oxidizing bacteria	(0)	1	2	3
14. Leaf litter	1.5	1	(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 = 2.75)

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: STREAM BED HIGHLY VEGETATED WITH SOME UPLAND PLANT AND SOME PHALARIS ARUNDINACEA



# STREAM 9-102

## NC DWQ Stream Identification Form Version 4.11

Date: <u>2/8/19</u>	Project/Site: <u>1277 Revolution</u>	Latitude:
Evaluator: <u>TYLER RUSSELL, KYLE PRICE</u>	County: <u>BEAVER</u>	Longitude:
Total Points: <small>Stream is at least intermittent if <math>\geq 19</math> or perennial if <math>\geq 30</math>*</small> <u>20.5</u>	Stream Determination (circle one) Ephemeral <u>(Intermittent)</u> Perennial	Other <u>9-102</u> <small>e.g. Quad Name:</small>

A. Geomorphology (Subtotal = <u>11</u> )	Absent	Weak	Moderate	Strong
1 <sup>a</sup> 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	0	(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	

<sup>a</sup> artificial ditches are not rated; see discussions in manual

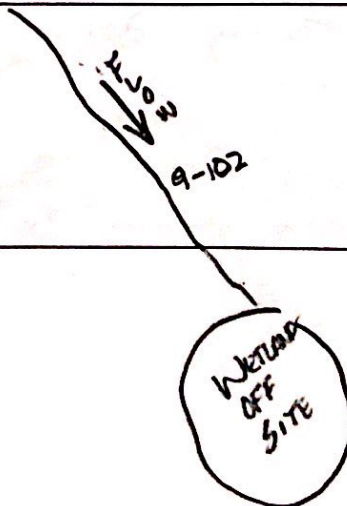
B. Hydrology (Subtotal = <u>4</u> )	Absent	Weak	Moderate	Strong
12. Presence of Baseflow	0	1	(2)	3
13. Iron oxidizing bacteria	(0)	1	2	3
14. Leaf litter	1.5	(1)	0.5	0
15. Sediment on plants or debris	0	(0.5)	1	1.5
16. Organic debris lines or piles	0	(0.5)	1	1.5
17. Soil-based evidence of high water table?	No = 0		Yes = 3	

C. Biology (Subtotal = <u>5.5</u> )	Absent	Weak	Moderate	Strong
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:



# STREAM 10-3

32

## NC DWQ Stream Identification Form Version 4.11

Date: <u>2/10/19</u>	Project/Site: <u>1277 Revolution</u>	Latitude:
Evaluator: <u>S. Denham</u>	County: <u>Butler</u>	Longitude:
<b>Total Points:</b> <i>Stream is at least intermittent if <math>\geq 19</math> or perennial if <math>\geq 30</math>*</i> <span style="float: right; font-size: 2em;">32</span>	<b>Stream Determination (circle one)</b> Ephemeral Intermittent <u>Perennial</u>	Other e.g. Quad Name:

**A. Geomorphology (Subtotal = 16.5)**

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

<sup>a</sup> artificial ditches are not rated; see discussions in manual

**B. Hydrology (Subtotal = 9.5)**

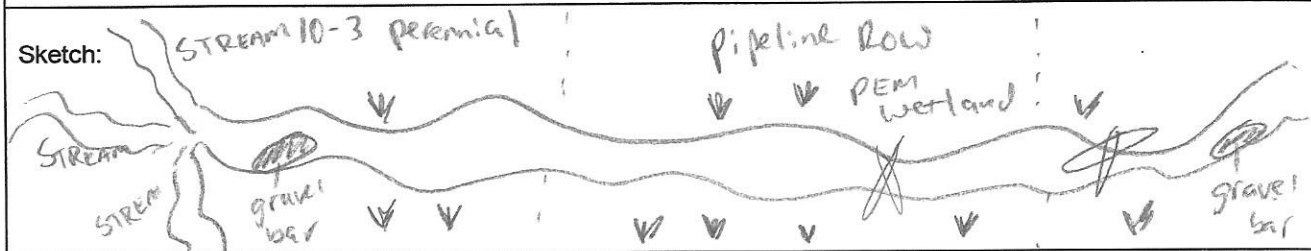
12. Presence of Baseflow	0	1	2	<u>3</u>
13. Iron oxidizing bacteria	0	<u>1</u>	2	3
14. Leaf litter	1.5	1	<u>0.5</u>	0
15. Sediment on plants or debris	0	0.5	<u>1</u>	1.5
16. Organic debris lines or piles	0	0.5	<u>1</u>	1.5
17. Soil-based evidence of high water table?	No = 0		<u>Yes = 3</u>	

**C. Biology (Subtotal = 6)**

18. Fibrous roots in streambed	3	<u>2</u>	1	0
19. Rooted upland plants in streambed	3	<u>2</u>	1	0
20. Macroinvertebrates (note diversity and abundance)	<u>0</u>	1	2	3
21. Aquatic Mollusks	<u>0</u>	1	2	3
22. Fish	<u>0</u>	0.5	1	1.5
23. Crayfish	0	0.5	<u>1</u>	1.5
24. Amphibians	0	0.5	<u>1</u>	1.5
25. Algae	<u>0</u>	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:**



**Key:**

- = Woody debris
- = Veg
- = Gravel bar