



ROY COOPER
Governor
MICHAEL S. REGAN
Secretary
LINDA CULPEPPER
Interim Director

June 19, 2018

DWQ Project # 2018-0516
Orange County

Philip Szostak
310 ½ W Franklin St
Chapel Hill, NC 27516

Subject Property: Columbia Street Annex, 1150 South Columbia Street
Unnamed Tributary to Morgan Creek

On-Site Determination for Applicability to the Jordan Lake Watershed Riparian Area Protection Rules (15A NCAC 02B .0267)

Dear Mr. Szostak:

On March 29, 2018, the Division of Water Resources (DWR) received your request to appeal an on-site determination made by the Town of Chapel Hill as provided in 15A NCAC 02B .0267 (4)(d). On June 6, 2018, Niki Maher and Shelton Sullivan of DWR conducted an on-site determination to review the feature located on the subject properties for applicability to the Jordan Buffer Rules (15A NCAC 2B .0267).

The feature was evaluated at two locations (labeled as "Site A" and "Site B" on the attached map initialed by Niki Maher on Jun 19, 2018) using the DWR Stream Classification Form. At Site A, the stream was evaluated to have a score of 32.5 on the DWR form. At Site B, the stream was evaluated to have a score of 33.5 on the DWR form. The form states that the "stream is at least intermittent if ≥ 19 or perennial if ≥ 30 ." The forms are attached to this letter.

An additional site was located below site A, labeled on the attached map as "Site C". Though the channel is still evident and biology found in wetted portions of the stream in this location support the stream continuing to carry the "perennial" designation, this portion of the stream around and below site C is heavily impacted by sedimentation. Approximately 18 inches of loosely associated sediment was measured in the channel, with the parent streambed substrate and water found beneath the sediment. Large scale debris and fill (from the parking lot upslope to the east) is still evident in the streamside areas east of the stream, but doesn't appear to encroach on the active channel as much at this location.

Further downstream of Site C, the area is characterized by a change in topography resulting in a broader, flatter valley. This area is impacted by years of sedimentation and burial by fill and debris from historic development activities, though rather than sediment confined to a discrete channel within a narrow valley as above (near Site C), the larger scale load is spread across the breadth of the valley floor and has been compacted over time, making it impossible to auger through to reach parent material. Further confounding determination efforts, invasive vegetation (privet, especially) has colonized

throughout, and the channel that is more obvious upstream is difficult to locate in this section. Though this area may have historically been a wetland area and/or included a stream channel within it, it appears to have normalized to its current impacted state. Over time, stormwater events may downgrade through sediment and through or around debris to the original channel, but the difficulty in making a stream determination at this time precludes DWR from regulating it as a perennial stream.

The DWR has determined that the stream at the locations labeled Site A and Site B on the attached map are “perennial” and subject to the Jordan Lake Buffer Rule.

The portion of the stream including Site C, though impacted, has been determined to carry the “perennial” designation and is subject to the Jordan Lake Buffer Rule.

The feature, between Site C and Site B (labeled “Impacted Variant Section” on the attached map), has been heavily impacted by offsite sedimentation and buried under fill and debris from historic development activities. For regulatory purposes, this portion of the feature is designated as “not subject” to the Jordan Lake Buffer Rule.

This determination shall replace the determination originally performed by the Town of Chapel Hill and shall expire five years from the date of this letter.

This determination can be contested as provided in General Statute 150B by filing a written petition for an administrative hearing to the Office of Administrative Hearings (hereby known as OAH) **within sixty (60) calendar days.**

A petition form may be obtained from the OAH at <http://www.ncoah.com/> or by calling the OAH Clerk’s Office at (919) 431-3000 for information. A petition is considered filed when the original and one (1) copy along with any applicable OAH filing fee is received in the OAH during normal office hours (Monday through Friday between 8:00am and 5:00pm, excluding official state holidays).

The petition may be faxed to the OAH at (919) 431-3100, provided the original and one copy of the petition along with any applicable OAH filing fee is received by the OAH within five (5) business days following the faxed transmission.

Mailing address for the OAH:

If sending via U.S. Postal Service:
Office of Administrative Hearings
6714 Mail Service Center
Raleigh, NC 27699-6714

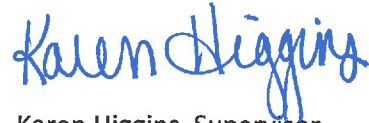
If sending via delivery service (UPS, FedEx, etc.)
Office of Administrative Hearings
1711 New Hope Church Road
Raleigh, NC 27609-6285

One (1) copy of the petition must also be served to DENR:

William F. Lane, General Counsel
Department of Environmental Quality
1601 Mail Service Center
Raleigh, NC 27699-1601

This letter only addresses the applicability to the buffer rules and does not approve any activity within buffers or within waters of the state. If you have any additional questions or require additional information, please call Niki Maher at (919) 807-6367.

Sincerely,



Karen Higgins, Supervisor
401 & Buffer Permitting Unit

KAH/NM

Enclosures: USGS Topo, Soil Survey, Site Map, Stream ID Forms

cc: Allison Weakley, Town of Chapel Hill- via email: aweakley@townofchapelhill.org

Danny Smith, DWR RRO

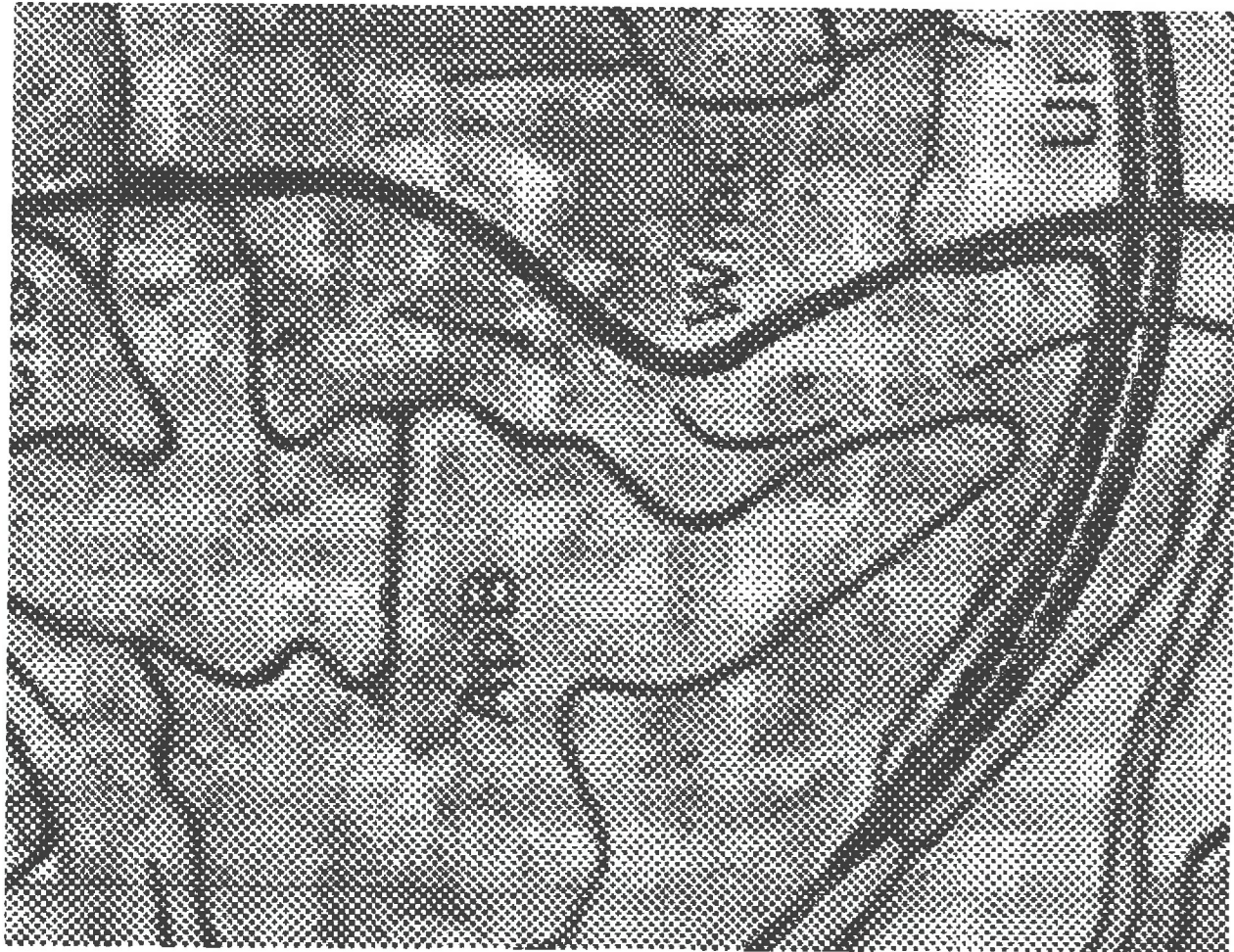
401 & Buffer Permitting Branch files

Filename: 18-0516SColumbiaSt(Orange)_bufferappeal

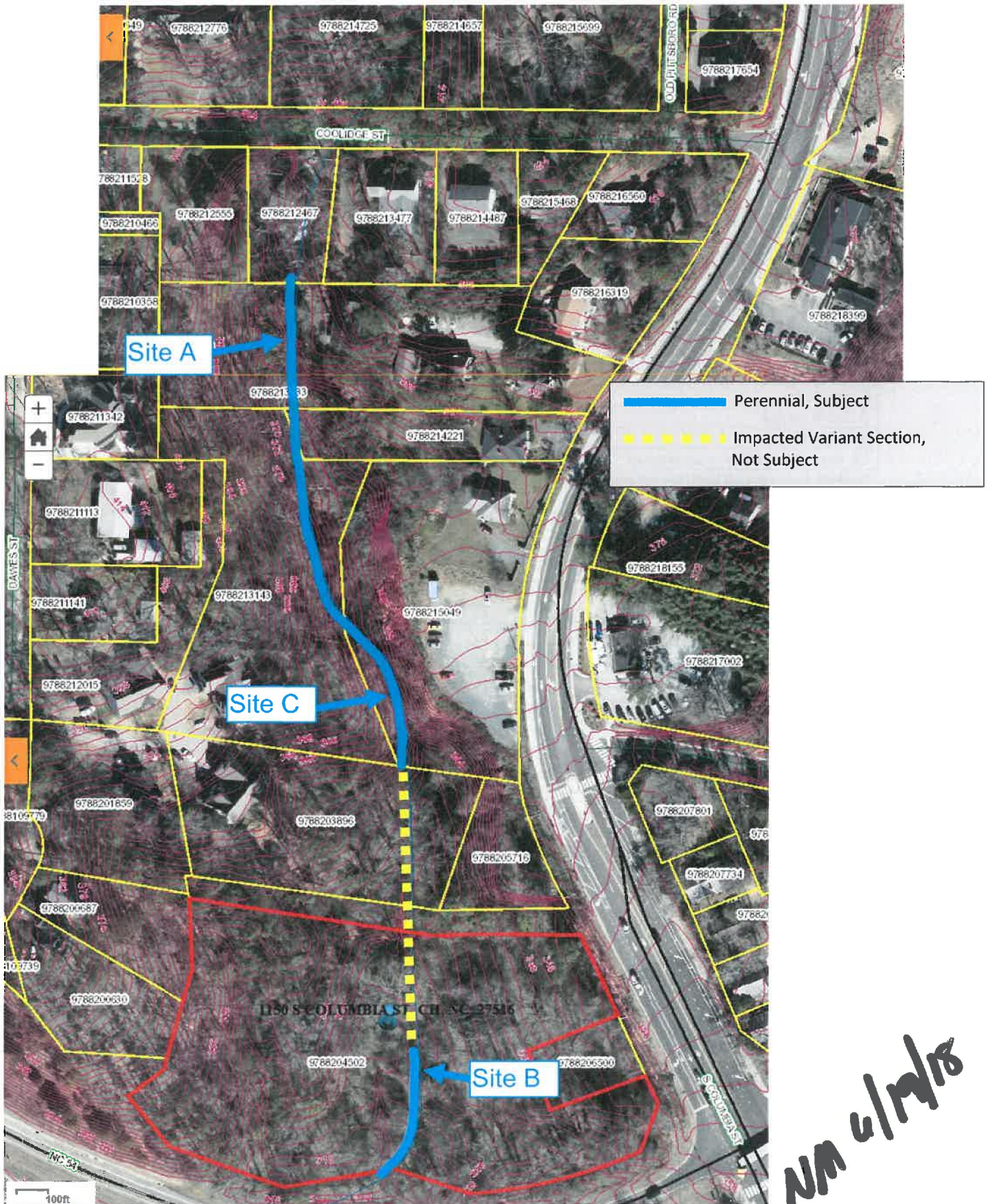
2016 USGS Topo Map, Chapel Hill Quad



1977 NRCS Soil Survey, Orange County



1150 S Columbia St Stream Appeal (DWR #2018-0516)



Site A

NC DWQ Stream Identification Form Version 4.11

Date: 6/6/18	Project/Site: 1505 Columbia St. Upper Site & (MCH site)	Latitude:
Evaluator: NAI SOS	County: Orange	Longitude:
Total Points: <i>Stream is at least intermittent if ≥ 19 or perennial if ≥ 30</i> 32.5	Stream Determination (circle one) Ephemeral Intermittent <u>Perennial</u>	Other e.g. Quad Name:

A. Geomorphology (Subtotal = 13.5)

	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	0	1	2	(3)
4. Particle size of stream substrate	0	1	2	(1)
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	

^aartificial ditches are not rated; see discussions in manual

B. Hydrology (Subtotal = 8)

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 = 11)

18. Fibrous roots in streambed	(3)	2	1	0
19. Rooted upland plants in streambed	(3)	2	1	0
20. Macroinverte (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	(1.5)	1	1.5
26. Wetland plants in streambed	FACW = 0.75; OBL = 1.5 Other (0)			

^aperennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: L snail
larval salamander - 1
crayfish - 1
insects
amph. plants
algae
adults living nearby - 1
hydrophytic vegetation - 4

2/2/18

Site B

NC DWQ Stream Identification Form Version 4.11

Date: 10/6/18	Project/Site: 1150 S Columbia St Site B (not site 5)	Latitude:
Evaluator: NM/SOS	County: Orange	Longitude:
Total Points: <small>Stream is at least intermittent if ≥ 19 or perennial if $\geq 30^a$</small> 33.5	Stream Determination (circle one) Ephemeral Intermittent (Perennial)	Other e.g. Quad Name:

A. Geomorphology (Subtotal = 14.5)

	Absent	Weak	Moderate	Strong
1. 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	

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

B. Hydrology (Subtotal = 10)

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 = 9)

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 \neq 0			

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

Notes:

Sketch: *leaves abundant*
amphipods abundant
aquatic mollusks
finger root along
snails
macroinvertebrates

iron ox bacteria ✓

starting to show through streambed
under appears @ 500m below culvert. > tolerance

