

Monitoring Data Record

Project Title: I-540 Northern Wake Expressway (R-2000AB) COE Action ID: 200021863

Stream Name: UT to Kit Creek DWQ Number: 030918

City, County and other Location Information: Wake County, Site 6 (Sta.10+41 to 12+76\_YRPA-)

Date Construction Completed: March 2005 Monitoring Year: ( 5 ) of 5

Ecoregion: \_\_\_\_\_ 8 digit HUC unit 03030002

USGS Quad Name and Coordinates: \_\_\_\_\_

**Rosgen Classification:** \_\_\_\_\_

Length of Project: 1,299' Urban or Rural: Rural Watershed Size: \_\_\_\_\_

Monitoring DATA collected by: M. Green and J. Young Date: 1/15/10

**Applicant Information:**

Name: NCDOT Roadside Environmental Unit

Address: 1425 Rock Quarry Road Raleigh, NC 27610

Telephone Number: (919) 861-3772 Email address: mlgreen@ncdot.gov

**Consultant Information:**

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone Number: \_\_\_\_\_ Email address: \_\_\_\_\_

**Project Status:** Complete

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**Monitoring Level required by COE and DWQ (404 permit/ 401 Cert.):** Level ( 1 ) ~~2~~ ~~3~~

Monitoring Level 1 requires completion of *Section 1, Section 2 and Section 3*

**Permit States:** NCDOT shall perform the following components of Level I monitoring twice each year for the 5 year monitoring period (summer and winter): Reference photos, plant survival, and visual inspection of channel stability. If less than two bankfull events occur during the first 5 years, NCDOT shall continue monitoring until the second bankfull event is documented. The bankfull events must occur during separate monitoring years. In the event that the required bankfull events do not occur during the 5 year monitoring period, the USACE, in consultation with resource agencies, may determine that further monitoring is not required.

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**Section 1. PHOTO REFERENCE SITES**

*(Monitoring at all levels must complete this section)*

**Total number of reference photo locations at this site:**

**5 photo point locations, 2 photos taken at each location**

**Dates reference photos have been taken at this site:** 9/12/06, 3/14/07, 8/9/07, 1/14/08, 6/11/08, 1/28/09, 7/6/09, 1/15/10

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**Individual from whom additional photos can be obtained (name, address, phone):** \_\_\_\_\_

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Other Information relative to site photo reference: A site map is included with this report showing the photo point locations.

If required to complete Level 3 monitoring only stop here; otherwise, complete section 2.

**Section 2. PLANT SURVIVAL**

**Attach plan sheet indicating reference photos.**

Identify specific problem areas (missing, stressed, damaged or dead plantings):

Beaver activity noted onsite. Some of the black willows have been cut back due to the beaver activity.

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Estimated causes, and proposed/required remedial action: NCDOT plans to trap the beavers and breach the dams located on site.

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**ADDITIONAL COMMENTS:** Vegetation noted onsite at the stream relocation at permitted Site 6 includes green ash, goldenrod, black willow, sycamore, tulip poplar, tag alder, sweetgum, ragweed, woolgrass, cattails, fennel, *Juncus* sp., lespedeza, silky dogwood, and various grasses.

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If required to complete Level 1 and Level 2 monitoring only stop here; otherwise, complete section 3.

**Section 3. CHANNEL STABILITY**

**Visual Inspection:** The entire stream project as well as each in-stream structure and bank stabilization/revetment structure must be evaluated and problems addressed.

Report on the visual inspection of channel stability. Physical measurements of channel stability/morphology will not be required. Include a discussion of any deviations from as-built and an evaluation of the significance of these deviations and whether they are indicative of a stabilizing or destabilizing situation.

The stream is stabilized for the Year 5 Winter evaluation. A crossvane at Sta. 2+00 –Stream 1- that had water piping under the crossvane last evaluation was functioning properly during this evaluation. Beaver dams located on site will be breached and the beavers will be trapped. NCDOT will continue to monitor this stream relocation.

Date 1/15/10	Station Number 0+90 –Stream 1- Additional Photo	Station Number 1+50 –Stream 1- PP#3 Upstream	Station Number	Station Number	Station Number
Structure Type					
Is water piping through or around structure?					
Head cut or down cut present?					
Bank or scour erosion present?					
Other problems noted?	Beaver dam noted	Smaller Beaver dam noted			

# UT Kit Creek



Photo Point #1 (Upstream)



Photo Point #1 (Downstream)



Photo Point #2 (Upstream)



Photo Point #2 (Downstream)



Photo Point #3 (Upstream) Larger Beaver Dam



Photo Point #3 (Downstream)

# UT Kit Creek



Photo Point #4 (Upstream)



Photo Point #4 (Downstream)



Photo Point #5 (Upstream)



Photo Point #5 (Downstream)



Photo of Beaver Dam at Sta. 0+90 –Stream 1-

# UT Kit Creek R-2000AB Wake County

⊕ Photo Point Locations

