

Monitoring Data Record

Project Title: R-2248D – Charlotte Outer Loop COE Action ID: 200131321  
 Stream Name: Trib. to Dixon Branch (Site 16) DWQ Number: 011231  
 City, County and other Location Information: Mecklenburg County, Charlotte Outer Loop, R-2248D Right of Project Station 13+50 Ramp 2D  
 Date Construction Completed: February 2005 Monitoring Year: ( 3 ) of 5  
 Ecoregion: \_\_\_\_\_ 8 digit HUC unit 03050103  
 USGS Quad Name and Coordinates: \_\_\_\_\_  
**Rosgen Classification:** Proposed C4 stream type classification  
 Length of Project: 548 ft. Urban or Rural: Urban Watershed Size: \_\_\_\_\_  
 Monitoring DATA collected by: M. Green Date: 3/2/11  
 Applicant Information:  
 Name: NCDOT – Roadside Environmental Unit  
 Address: 1425 Rock Quarry Rd, Raleigh, NC 27610  
 Telephone Number: (919) 861-3772 Email address: mlgreen@ncdot.gov  
 Consultant Information:  
 Name: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Telephone Number: \_\_\_\_\_ Email address: \_\_\_\_\_  
**Project Status:** \_\_\_\_\_

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

The permittee shall perform the following components of Level I monitoring each year for the 5-year monitoring period or through two documented bankfull flow events. Reference photos; plant survival (i.e. identify specific problem areas (missing, stressed, damaged or dead plantings), estimated causes, and proposed/required remedial action); visual inspection of channel stability. Physical measurements of channel stability/morphology will not be required. The permittee shall submit the monitoring reports to the USACE, Raleigh Regulatory Field Office Project Manager, within sixty days after completing the monitoring. If less than two bankfull events occur during the first 5 years, the permittee 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 five-year monitoring period, the USACE, in consultation with the resource agencies, may determine that further monitoring is not required. It is suggested that all bankfull occurrences be monitored and reported through the required monitoring period. The permittee shall perform and submit photo documentation twice each year (summer and winter) for the 5-year monitoring period, and for any subsequently required monitoring period.

Section 1. PHOTO REFERENCE SITES

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

**Total number of reference photo locations at this site:** 6 photos were taken from 2 photo point locations.

**Dates reference photos have been taken at this site:** 2/23/09, 9/1/09, 3/16/10, 9/28/10, 3/2/11

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

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

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):

The buffer area plantings were minimal and live stakes are needed where the stream remediation work occurred.

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Estimated causes, and proposed/required remedial action: NCDOT performed a supplemental planting at Site 16 on March 2, 2011. The site was planted with sycamore, yellow poplar, and willow oak bareroot seedlings. Black willow and silky dogwood live stakes were planted where the stream remediation work occurred.

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ADDITIONAL COMMENTS: NCDOT will continue to monitor the planted vegetation for survival.

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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.

UT to Dixon Branch (Site 16) stream relocation was unstable for the Year 3 Winter evaluation. NCDOT installed log sills in May 2010 to stop the previously noted headcut and further stabilize the stream. Three of the four installed log sills have water piping under or around these structures. A headcut has moved further upstream since the log sills have failed. NCDOT plans to investigate the situation to see what remedial action is needed and will continue to monitor for channel stability at this stream relocation.

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Date 3/2/11	Between PP#1 and PP#2	Station Number	Station Number	Station Number	Station Number
Structure Type	Log Sills				
Is water piping through or around structure?	Water is piping under or around three of the four installed log sills				
Head cut or down cut present?	Headcut				
Bank or scour erosion present?					
Other problems noted?					

**Section 4. DEBIT LEDGER**

The entire UT to Dixon Branch (Site 16) stream mitigation site was used for the R-2248D project to compensate for unavoidable stream impacts.

# UT to Dixon Branch

## Site 16



Photo Point #1 (Upstream)



Photo Point #1 (Downstream)



Photo Point #2 (Upstream)



Photo Point #2 (Downstream)



Photo Point #3 (Upstream)  
Year 3 Winter – March 2011



Photo Point #3 (Downstream)

# UT to Dixon Branch

## Site 16



Log Sill #1



Log Sill #2



Log Sill #3



Log Sill #4



Headcut upstream of Log Sill #1  
Year 3 Winter – March 2011

