

Monitoring Data Record

Project Title: B-3856 (Br. #335 over Mud Creek) COE Action ID: 2007-1871-345

Stream Name: UT's to Mud Creek (Sites 1 & 3) DWQ Numbers: 070798

City, County and other Location Information: Henderson County, Bridge No. 335 over Mud Creek and approaches on SR 1238 (Pearl Lane)

Date Construction Completed: August 2008

Visual Monitoring Yearly: (3) of 3

Ecoregion: _____ 8 digit HUC unit: 06010105

USGS Quad Name and Coordinates: _____

Rosgen Classification: _____

Length of Project: Site 1: 215 ft. & Site 3: 165 ft. (Total 380 ft.) Urban or Rural: Rural

Watershed Size: _____

Monitoring DATA collected by: M. Green and J. Young Date: 6/29/11

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: Complete

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: The permittee will visually monitor the vegetative plantings to assess and ensure complete stabilization of the mitigation stream segments. The monitoring shall be conducted annually for a minimum of three (3) years after final planting. Photo documentation should be utilized to document the success of the riparian vegetation and the results submitted in a final report to DWQ within sixty (60) days after completing the monitoring. After three (3) years a site visit shall be conducted by DWQ staff to "close out" the mitigation site.

Section 1. PHOTO REFERENCE SITES

Total number of reference photo locations at this site: Site 1: 3 photo point locations, 2 photos at each location Site 3: 3 photo point locations, 2 photos at each location.

Dates reference photos have been taken at this site: 8/10/09, 7/28/10, 6/29/11

Individual from whom additional photos can be obtained (name, address, phone): _____

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

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

Section 2. PLANT SURVIVAL

Attach plan sheet indicating reference photos.

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

Estimated causes, and proposed/required remedial action: _____

ADDITIONAL COMMENTS: Seedlings noted on the streambank and in the floodplain consisted of black willow, silky dogwood, tulip poplar, and tag alder. Other vegetation noted consisted of *Juncus* sp., jewelweed, sedge, tear-thumb, lespedeza, sumac, and various grasses. NCDOT removed the livestock and fence from the adjacent landowner noted last year and seeded the bare areas in mid-May 2011. NCDOT has completed three years of monitoring and proposes to discontinue plant survival monitoring.

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.

This is the 3rd year of monitoring for the Unnamed Tributaries to Mud Creek. Site 1 is stable for this evaluation but does have some bare areas along the left bank downstream of PP#3 due to livestock grazing from the adjacent landowner from last year. NCDOT removed the livestock, fencing, and made some hand repairs to this area in mid-May 2011. Site 3 appears to be stable throughout the entire length of the stream relocation. NCDOT has completed three years of monitoring and is proposing to discontinue channel stability monitoring.

Date Inspected	Station Number	Station Number	Station Number	Station Number	Station Number
6/29/11	13+00-L- Downstream of Photo Point #3 @ Site 1				
Structure Type	.				
Is water piping through or around structure?					
Head cut or down cut present?					
Bank or scour erosion present?					
Other problems noted?	Bare areas along left bank downstream of PP#3				

Section 4. DEBIT LEDGER

The entire UT's to Mud Creek (Sites 1 & 3) stream mitigation site was used for the B-3856 project to compensate for unavoidable stream impacts.

Site 1



Photo Point #1 (Upstream)



Photo Point #1 (Downstream)



Photo Point #2 (Upstream)



Photo Point #2 (Downstream)



Photo Point #3 (Upstream)



Photo Point #3 (Downstream)

Site 1



Site 1 (Bare areas along the left bank downstream of PP#3)



Site 1 (Overview Photo of Site 1)

Year 3 – June 2011

Site 3



Photo Point #1 (Upstream)



Photo Point #1 (Downstream)



Photo Point #2 (Upstream)



Photo Point #2 (Downstream)



Photo Point #3 (Upstream)



Photo Point #3 (Downstream)

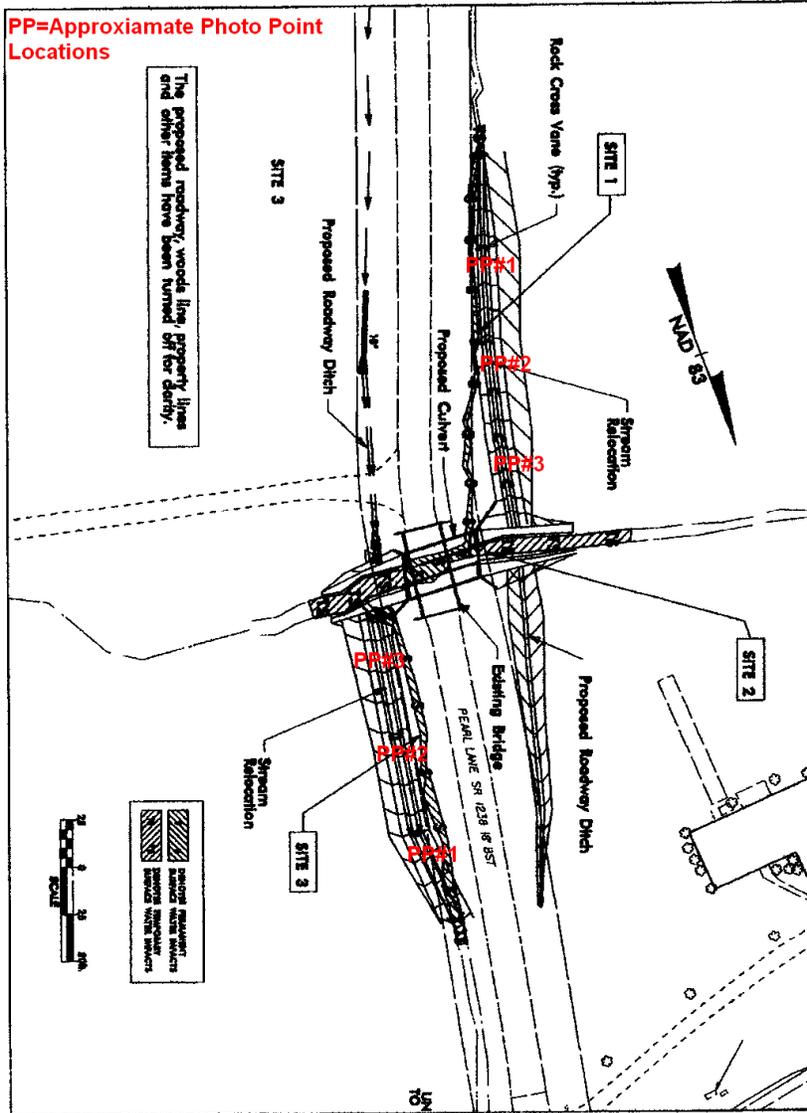
Site 3



Overview Photo of Site 3

Year 3 – June 2011

Enlargement



PP=Approximate Photo Point Locations

The proposed roadway, woods line, property lines and other items have been turned off for clarity.

PROPOSED ROADWAY
 EXISTING ROADWAY
 STREAM RELOCATION
 STREAM WITH BRIDGE

Permit Drawing
 Sheet 12 of 14

PROJECT NO.	DATE
NO.	DATE
PERMITTING PLAN	
BY PERMITS DIVISION	