

Monitoring Data Record

Project Title: Henderson Western Loop (U-2527) COE Action ID: 199708127

Stream Name: UT to Red Bud Creek DWQ Number: 031494

City, County and other Location Information: Henderson, Vance County
(Sta. 40+80 to 47+20)

Date Construction Completed: Water was turned into stream on 6/13/05. Planting was completed on 3/10/06.

Monitoring Year: (4) of 5

Ecoregion: _____ 8 digit HUC unit 03010102

USGS Quad Name and Coordinates: _____

Rosgen Classification: Proposed E4 Stream Type

Length of Project: 2,592' Urban or Rural: Urban Watershed Size: _____

Monitoring DATA collected by: M. Green and J. Young Date: 1/7/09

Applicant Information:

Name: NCDOT Roadside Environmental Unit

Address: 1425 Rock Quarry Road Raleigh, NC 27610

Telephone Number: (919) 861-3772 Email address: mlgreen@dot.state.nc.us

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: 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.

Section 1. PHOTO REFERENCE SITES

(Monitoring at all levels must complete this section)

Total number of reference photo locations at this site:

13 photo point locations, 2 photos at each

Dates reference photos have been taken at this site: 6/21/06, 1/10/07, 6/6/07, 3/14/08, 6/12/08, 1/7/09

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

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):

Estimated causes, and proposed/required remedial action: _____

ADDITIONAL COMMENTS: Stream is highly vegetated with herbaceous and woody vegetation. Planted vegetation noted onsite included silky dogwood, black willow, sycamore, green ash, tulip poplar, and willow oak. All the planted species were noted onsite but sycamore is the most dominate hardwood species. Other vegetation onsite included lespedeza, cattails, *Juncus* sp., sedge, fennel, woolgrass, *Sagittaria* sp., pine, wax myrtle, fern, alder and various grasses. The supplemental planting that took place from Sta. 46+40 to Sta. 47+20 in the Winter of 2008 is surviving at this time.

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 highly stabilized for the Year 4 Winter evaluation. All cross vanes are functioning properly except for a cross vane located at approx. Sta. 41+20. This cross vane still has a slight headcut and water piping around the left arm of the structure. NCDOT will continue to monitor this stream relocation.

Survey shots were taken 2-26-09 adjacent to cross vane at Sta. 41+20 to determine if slight headcut affects stability of stream. Grade control structures exist both upstream and downstream of this cross vane. The elevation difference between these structures is 0.76 feet. This is consistent with elevation differences between grade control structures throughout the reach. No remediation activity is recommended.

1/7/09	Sta. 41+20	Station Number	Station Number	Station Number	Station Number
Structure Type	Crossvane				
Is water piping through or around structure?	Water is piping around left arm of the crossvane				
Head cut or down cut present?	Slight Headcut				
Bank or scour erosion present?					
Other problems noted?					

NOTE: Attach separate narrative sheets to each monitoring report describing/discussing the overall monitoring results. Include the identification of specific problem areas/channel failures, estimated cause and proposed/required remedial action. This should include a brief discussion of any parameter that has changed significantly from as-built.

UT Red Bud Creek



Photo Point #1 (Upstream)



Photo Point #1 (Downstream)



Photo Point #2 (Upstream)



Photo Point #2 (Downstream)



Photo Point #3 (Upstream)



Photo Point #3 (Downstream)

UT Red Bud Creek



Photo Point #4 (Upstream)



Photo Point #4 (Downstream)



Photo Point #5 (Upstream)



Photo Point #5 (Downstream)



Photo Point #6 (Upstream)



Photo Point #6 (Downstream)

UT Red Bud Creek



Photo Point #7 (Upstream)



Photo Point #7 (Downstream)



Photo Point #8 (Upstream)



Photo Point #8 (Downstream)



Photo Point #9 (Upstream)



Photo Point #9 (Downstream)

UT Red Bud Creek



Photo Point #10 (Upstream)



Photo Point #10 (Downstream)



Photo Point #11 (Upstream)



Photo Point #11 (Downstream)



Photo Point #12 (Upstream)



Photo Point #12 (Downstream)

UT Red Bud Creek



Photo Point #13 (Upstream)



Photo Point #13 (Downstream)

Year 4 Winter – January 2009

U -2527
 HENDERSON WESTERN OUTERLOOP
 VANCE CO.

⊕ PHOTO POINT LOCATIONS



