Monitoring Data Record

Project Title: Talecris access road project COE Action ID: 201000775
Stream Name: UT Neuse River (Talecris Site) DWQ Number: 20100310
City, County and other Location Information: Turn onto Talecris access road off of Powhatan Road in Clayton, NC.
Date Construction Completed: February 2011 Monitoring Year: (3) of 3
Ecoregion: _____ 8 digit HUC unit 03020201
USGS Quad Name and Coordinates: NC-Powhatan 35.622843, -78.414749
Rosgen Classification: _____
Length of Project: 1,160 feet Urban or Rural: Rural Watershed Size: _____
Monitoring DATA collected by: J. Young, M. Green, B. Mills Date: 6/9/14
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

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

Mitigation Plan states: The site will be visually monitored and documented with photo points for channel stability and vegetation survival for three years. The conservation easement will be held in perpetuity and recorded on the Talecris deed. The mitigation site and conservation easement boundary will also be placed on the Natural Environment Unit's Mitigation Geodatabase for long term stewardship.

Permit states: The permittee shall monitor the buffer mitigation site. Monitoring shall consist of visual review with photo points for channel stability and vegetation survival. An annual report shall be submitted to NCDWQ for a period of 3 years showing monitoring results, survival rate/ success of tree and vegetation establishment, and that diffuse flow through the riparian buffer has been maintained. The first annual report shall be submitted within one year of final planting. Failure to achieve a buffer density of 320 trees per acre after 3 years will require the annual report to provide appropriate remedial actions to be implemented and a schedule for implementation. Approval of the final annual report and a formal "close out" of the mitigation site by NCDWQ is required.

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 with 2 photos taken from each location. Additional overview photo.

Dates reference photos have been taken at this site: 6/27/12, 6/25/13, 6/9/14

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.

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: NCDOT completed planting this site in February 2011 with silky dogwood, buttonbush, sycamore, green ash, swamp chestnut oak, and water tupelo. Two 50 x 50 foot vegetation plots were set in the planted area. Plant survival counts were conducted during June 2014 monitoring evaluation with the results showing an average density of 493 trees per acre, which is well above the minimum success criteria of 320 trees per acre after the third year of monitoring. The herbaceous vegetation was very thick throughout the site. Other species noted on site included smartweed, black willow, *Juncus* sp., cut grass, sweetgum, sedge, alder, jewelweed, pine, and various grasses. NCDOT proposes to discontinue plant survival monitoring at this site.

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

Plot #	Silky Dogwood	Buttonbush	Sycamore	Green Ash	Swamp Chestnut Oak	Water Tupelo	Total (Year 3)	Total (at planting)	Density (Trees/Acre)
1	4	8	5	9	4		30	40	510
2	12	6	7	2	1		28	40	476
Year 3 Average Density (Trees/Acre)									**493**
Year 2 Average Density (Trees/Acre)									536
Year 1 Average Density (Trees /Acre)									612

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 Neuse River (Talecris Site) is stable for the Year 3 monitoring evaluation. There was some localized bank scouring noted along the right bank just downstream of Photo 2 (see Photo 2). A headcut that was noted previously approximately 12 feet upstream of Photo 7 remains stable at this time (see Photo 7). This channel remains stable and highly vegetated. A bankfull event had recently occurred. NCDOT proposes to discontinue monitoring channel stability at this site.

Date Inspected 6/9/14	12 feet upstream of Photo 7	Downstream of Photo 2	Station Number	Station Number	Station Number
Structure Type					
Is water piping through or around structure?					
Head cut or down cut present?	Headcut which formed upstream of Photo 7 is stable with no change.				
Bank or scour erosion present?		Bank scour along right bank			
Other problems noted?					
Bankfull event dates and how it was noted	6/25/13 Wrack line	6/9/14 Wrack line			

Section 4. DEBIT LEDGER

Site name	Site TIP	HUC	River Basin	Division	County	Mitigation Type	Notes	As Built Quantity	Available	Debit
UT to Neuse River (Talecris Site)	**N/A**	**3020201**	**Neuse**	**4**	**Johnston**					**WBS No. 59002**
						Stream Enhancement		1,160 lf.	1,160 lf.	
						Buffer Enhancement		75,000 ft^2	72,897 ft^2	2,103 ft^2
						Non-Riverine Wetland		1.0 acre	1.0 acre	

***Note: Debit Ledger information up to date as of July 17, 2014.**

UT to Neuse River

(Talecris Site)

Photo 1

Photo 2

Photo 3

Photo 4

Photo 5
June 2014

Photo 6

UT to Neuse River

(Talecris Site)

Photo 7

Photo 8

Photo 9

Photo 10

Plot #1

Plot #2

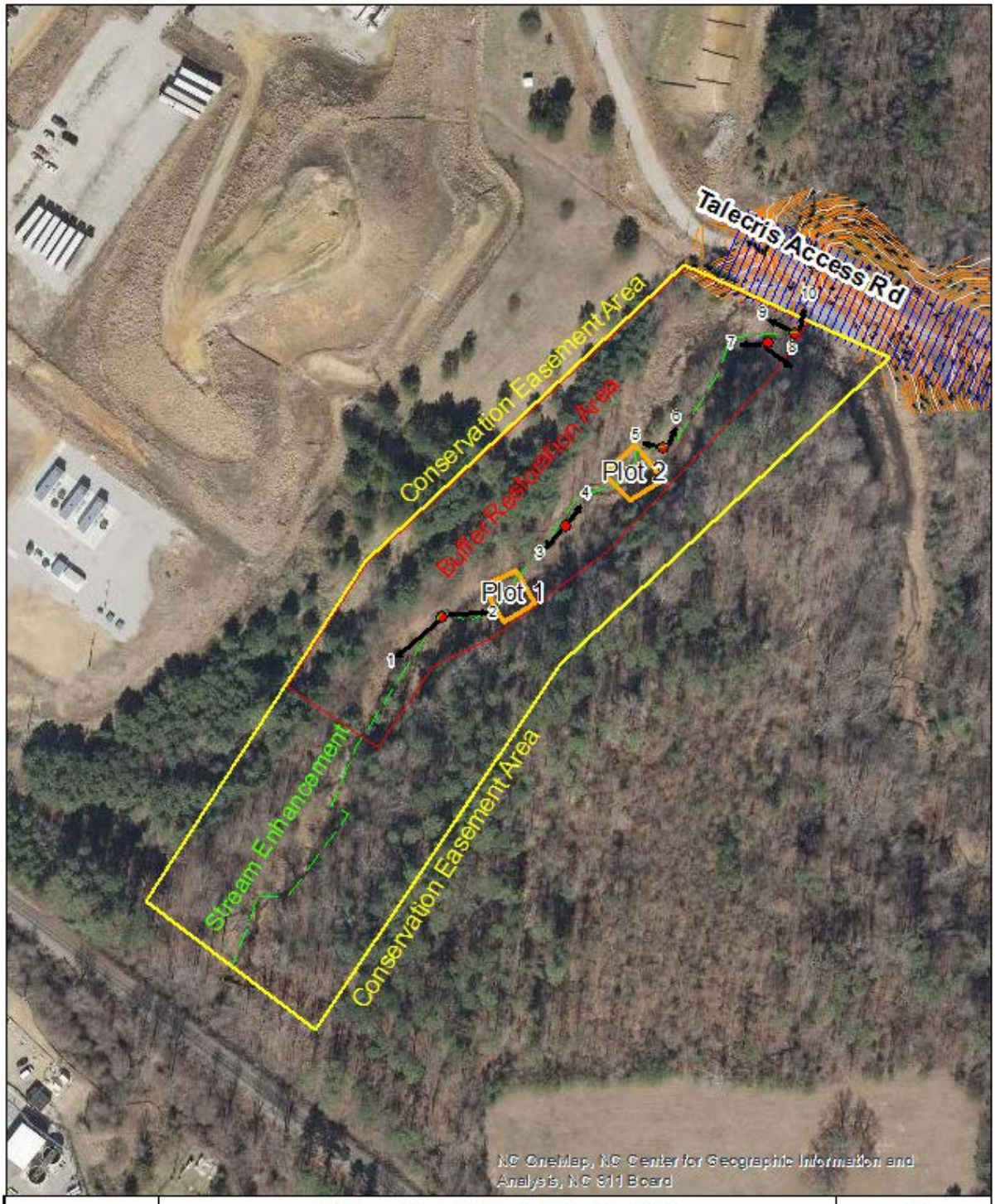
June 2014

UT to Neuse River

(Talecris Site)

Overview Photo

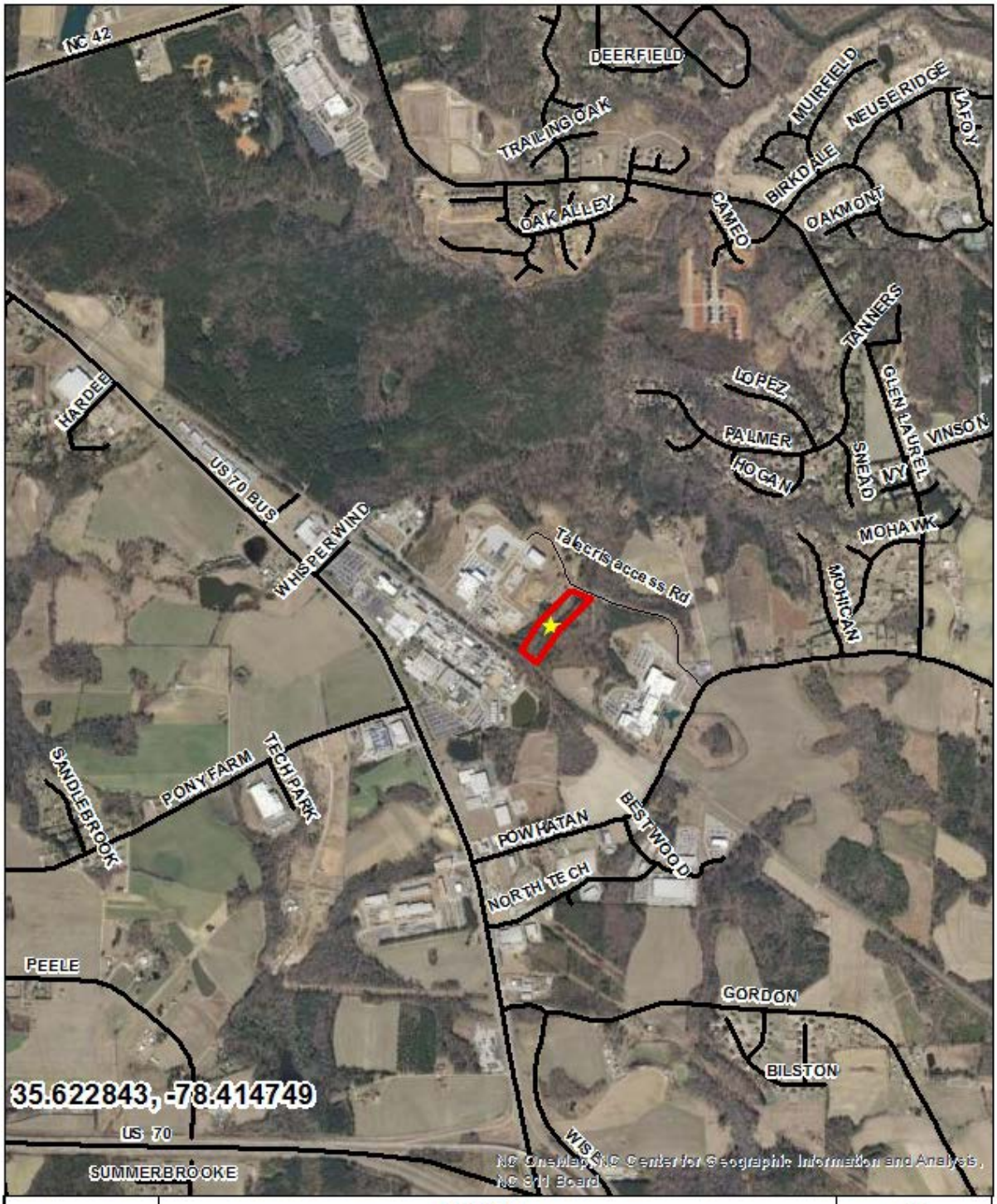
June 2014



UT Neuse River (Talecris Mitigation Site)
Site Map (Photo Point and Veg Plot Locations)
Johnston County, North Carolina

0 162.5 325 650 Feet

N
W E
S



Vicinity Map
Talecris Mitigation Site
Johnston County, North Carolina

0 0.25 0.5 1 Miles

N
W E
S