As-built Baseline Monitoring Report
FINAL

Mt. Pleasant Creek Restoration Project
Bowman Property
DMS Project Number 44
401: DWR 07-2252v2
404: SAW-2008-01382

Randolph County, North Carolina

Prepared for:
NCDMS, 1652 Mail Service Center, Raleigh, NC 27699-1652

Monitoring Data Collected: March 2017
Date Submitted: April 2017

Monitoring and Design Firm

Prepared by:

KCI Associates of North Carolina, PC
4505 Falls of Neuse Road
Suite 400
Raleigh, NC 27609
(919) 783-9214

Project Contact: Adam Spiller
Email: adam.spiller@kci.com

April 2017

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PROJECT SUMMARY

Project work at the Mt. Pleasant Creek Restoration Project, Bowman Property ("Bowman") was completed in February 2017, and included construction, planting, invasive treatment, and fence installation. Through this project work, a total of 1,886 linear feet of stream were enhanced or preserved, and 358,604 sf of buffer were protected, enhanced, or restored. The project stream is perennial and drains a 5.2-acre watershed in the Cape Fear River Basin (03030003 8-digit cataloging unit) of Randolph County, North Carolina. The Bowman site has a history of unrestricted livestock access, leading to bank erosion, compaction, and discontinuity between the stream and its associated floodplain. The completed project will reduce sediment inputs from failing banks, reduce nutrients and bacteria entering the stream from livestock and will enhance the forested corridor along the stream floodplain.

The project is protected by a 9.61-acre permanent conservation easement, held by the NC Department of Transportation. Bowman is located off Whites Chapel Road, approximately 5 miles southwest of Liberty, North Carolina. The project site is bounded by interspersed pastureland and forested land to the east, forest to the south, pasture and forest to the north, and agricultural land and forest to the west. Bowman is in a parent parcel involved with agricultural production for cattle, chicken houses, goats, and pasture for hay.

GOALS & OBJECTIVES

The 2009 Cape Fear River Basin RBRP identified HUC 03030003020010 (Sandy Creek) as a Targeted Local Watershed, of which the project site is a part (NCEEP 2009). The project goals are in line with the following basin priorities:

- Reduce sources of sediment and nutrients by enhancing riparian buffer vegetation, excluding livestock, and enhancing stream and buffer function.

The goals for the project are to:

- Restore long term stability to exposed banks and reduce susceptibility to scour.
- Eliminate stream bacteria and nutrient exposure from animal waste and wallow.
- Restore a contiguous riparian buffer that connects to the surrounding forested mature buffer.

The project goals will be addressed through the following objectives:

- Conduct Enhancement I level stream restoration on 530 linear feet of stream by repairing actively eroding banks and re-establishing the stream pattern where there has been excessive sediment deposition.
- Conduct Enhancement II level stream restoration on 1,046 linear feet of stream through a permanent conservation easement and removing cattle access.
- Install Preservation on an additional 290 linear feet of stream by putting the stream in a permanent conservation easement.
- Riparian buffer restoration, enhancement, and preservation throughout the stream corridor.

BASELINE CONDITIONS

To implement these objectives, project work was completed in February 2017 per the Mitigation Plan. The as-built and baseline surveys found that the stream was constructed as designed and all structures were installed as planned. Stream work included installation of 7 soil lifts fortified with live willow whips, a ford crossing, and constructed riffle in the Enhancement I credit area. Bio-engineering with live staking, temporary and permanent seeding occurred along all exposed banks, and sloped banks; and transplants were installed where possible. Invasive treatment occurred throughout the entire easement, using a stump herbicide treatment method. The site was constructed as designed. The only modification during construction was the extension of the stone on both sides of the ford crossing.

In March 2017, 1.23-acres of riparian buffer was planted per the Mitigation Plan specifications. Five species of trees were installed at a density of approximately 600 trees per acre. There were two substitutions from the Mitigation Plan species due to availability and vigor of trees (*Nyssa sylvatica* and *Quercus nigra*). Also in March following planting, 3-strand high tensile electric fencing was installed in the crossing area. Baseline monitoring of trees and cross-sectional measurements occurred March 29 through 30, 2017.

MONITORING

The monitoring components were installed in March 2017 per the Mitigation Plan monitoring specifications. To measure stability in stream dimension, three permanent cross-sections were established at stations 12+12, 15+25 and 17+00. Two of these cross-sections (12+12 and 17+00) were established at location where previous, pre-construction cross-sections were installed for comparison. The third cross-section (15+25) was placed across the constructed riffle. The cross-sectional measurements will be measured annually to ensure little or no change from the as-built conditions. One automatic recording gauge will record the occurrence of bankfull events. A minimum of two bankfull events must be recorded during the monitoring period.

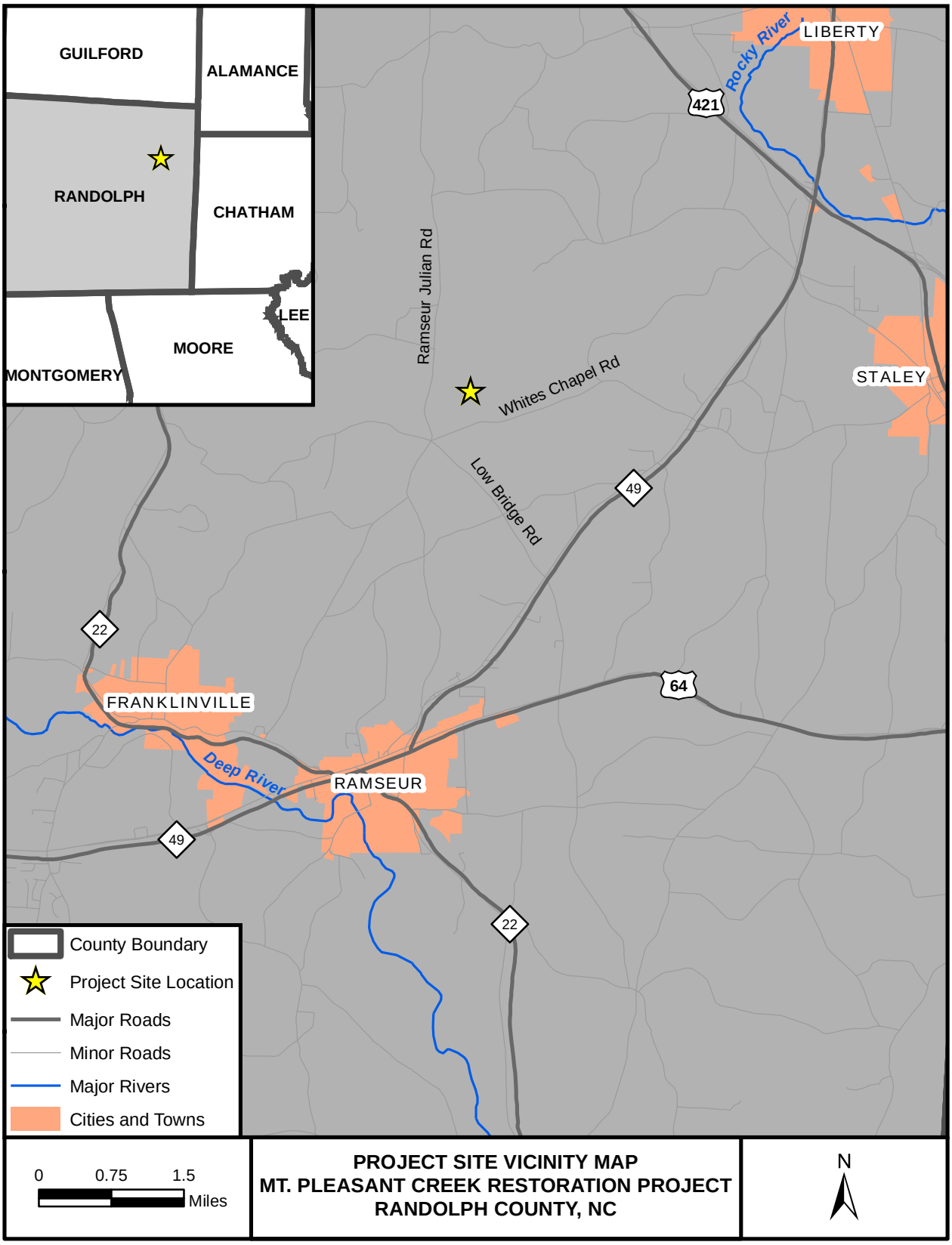
For vegetation monitoring, one permanent and two random 10 m^2 vegetation monitoring plots were established. The location of the planted stems relative to the origin within the permanent plot, as well as the species in all plots, was recorded by size. Volunteers were recorded by species and size separately from planted stems. Six permanent photo reference points were established and will be taken annually.

Visual assessments will be used to assess vegetative cover, diffuse flow, and easement integrity as well as to identify any problem areas. Monitoring will be conducted annually each year moving forward with and the first year of monitoring occurring in 2017.

SUCCESS CRITERION

Stream performance standards are based on 2003 Stream Mitigation Guidelines for determination of channel stability and vegetative success. Stream stability will be documented through 1) annual visual assessment 2) demonstration of bankfull events, 3) stream photo points and 4) monitoring three cross sections (for the Enhancement I section only).

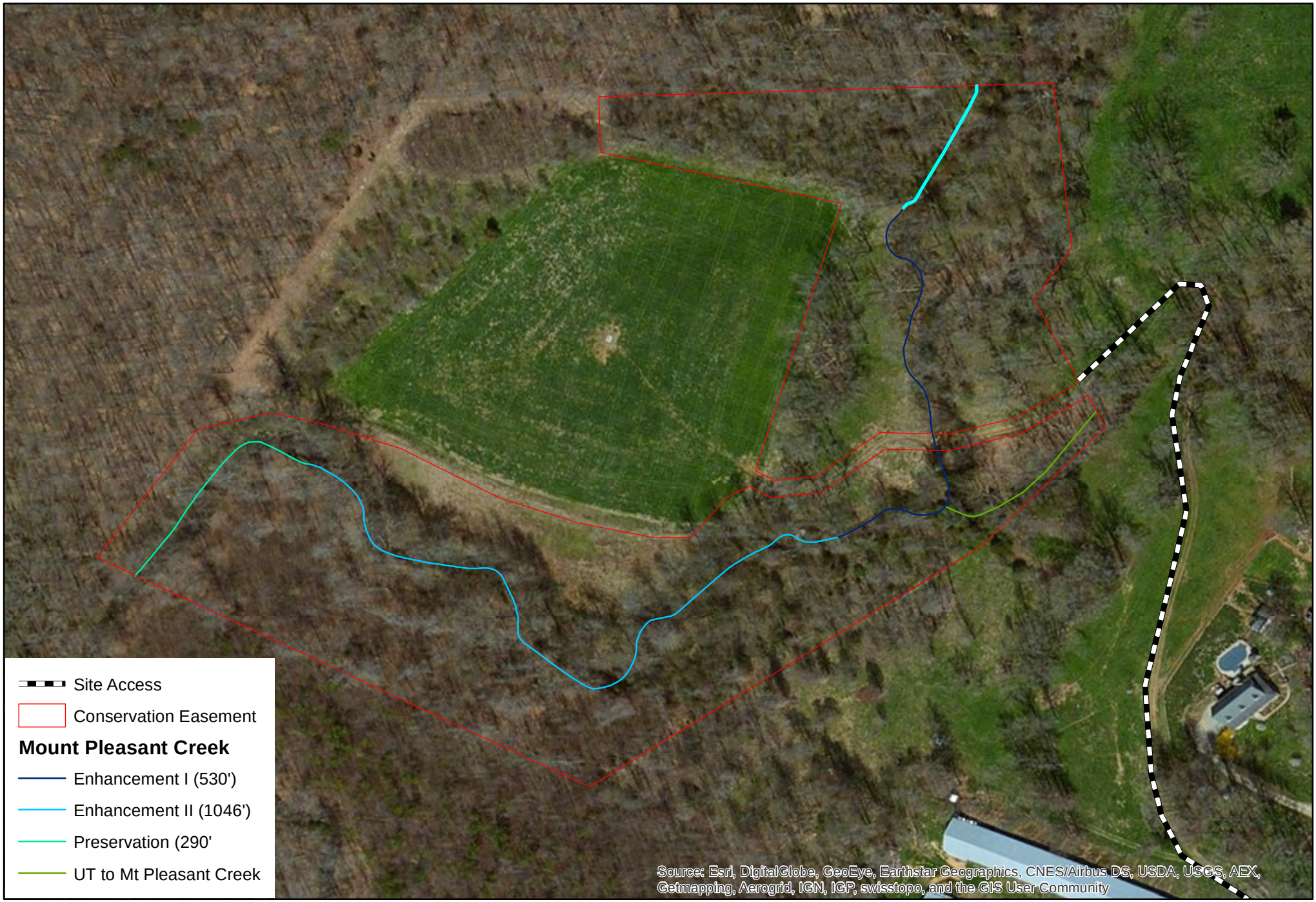
Vegetative success criterion is in accordance with North Carolina Division of Water Resources Administrative Code 15A NCAC 02B.0295 (NCDWR 2014 Temporary Rule). After five years of monitoring, an average density of 260 woody stems per acre must be surviving and diffuse flow maintained. The baseline monitoring indicated there were 890 planted woody stems per acre in all three vegetation monitoring plots.


GUILFORD
ALAMANCE
RANDOLPH
CHATHAM
LEE
MOORE
MONTGOMERY
LIBERTY
Rocky River
421
Ramseur Julian Rd
Whites Chapel Rd
STALEY
Low Bridge Rd
49
22
64
FRANKLINVILLE
Deep River
RAMSEUR
49
22
County Boundary
Project Site Location
Major Roads
Minor Roads
Major Rivers
Cities and Towns
0
0.75
1.5
Miles
PROJECT SITE VICINITY MAP
MT. PLEASANT CREEK RESTORATION PROJECT
RANDOLPH COUNTY, NC
N

Mount Pleasant Creek (Bowman Site)
Stream Mitigation Assets: As-Built 2017

0 75 150 300 Feet

N W E S



Mount Pleasant Creek (Bowman Site)
Buffer Mitigation Assets: As-Built 2017

0 75 150 300 Feet

N W E S

REFERENCES

NCDENR, Ecosystem Enhancement Program. 2009. Cape Fear River Basin Restoration Priorities 2009. Raleigh, NC. Last accessed 1/2016 at: http://portal.ncdenr.org/c/document_library/get_file?uuid=705d1b58-cb91-451e-aa58-4ef128b1e5ab&groupId=60329

NCDENR, Ecosystem Enhancement Program. 2014. NCDENR, Ecosystem Enhancement Program. 2014.
Stream and Wetland Mitigation Monitoring Guidelines. Last accessed 1/2016 at: http://portal.ncdenr.org/c/document_library/get_file?p_l_id=60409&folderId=18877169&name=DLFE-86604.pdf

NCDENR, Ecosystem Enhancement Program. 2014. Stream and Wetland Mitigation Monitoring Guidelines. Last accessed 6/2015 at: http://portal.ncdenr.org/c/document_library/get_file?p_l_id=60409&folderId=18877169&name=DLFE-86606.pdf

APPENDIX A

Background Tables

Table 1. Project Components and Mitigation Credits
Mt. Pleasant Creek Restoration Project-Bowman Property, DMS Project #44
Mitigation Credits

	Stream		Riparian Buffer	
Type	R	RE	R	E
Size (ft/sf)	1,576	290	37,474	321,130
Credits (SMU/BMU)	772	58	33,359	144,090
TOTAL CREDITS		830		177,448

STREAM MITIGATION

Project Component	Location	Existing Length (ft)	Approach	Mitigation Ratio (x: 1)	Restoration Lenth (ft)	Credits (SMU)
Mount Pleasant Creek	10 + 00 to 11+75	175	Enhancement II	2.5	175	70
	11+75 to 14+91 15+11 to 17+25	530	Enhancement I	1.5	530	353
	17 + 25 to 25 + 96	871	Enhancement II	2.5	871	348
	25 + 96 to 28 + 86	290	Preservation	5	290	58

RIPARIAN BUFFER MITIGATION: Randleman Lake Water Supply Watershed

Project Component	Proximity to TOB (ft)	Existing Area (sqft)	Approach	Mitigation Ratio (x: 1)	Eligible Restoration Area (sqft)	Credits (BMU)
A	0-100	16,404	Restoration	1	16,404	16,404
E1	0-100	5,222	Restoration	1	5,222	5,222
E1	100-200	3,091	Restoration	2	3,091	1,546
E2	0-100	7,617	Restoration	1	7,617	7,617
E2	100-200	5,140	Restoration	2	5,140	2,570
B	0-100	19,982	Enhancement	2	19,982	9,991
B	100-200	6,611	Enhancement	4	6,611	1,653
C1, C2, C3 & D	0-100	246,962	Alt. Enhancement	2	246,962	123,481
C1, C2, C3 & D*	100-200	47,575	Alt. Enhancement	4	35,860	8,965
SUM		**358,604**			**346,889**	**177,448**
SUBTOTAL	0-100		Restoration	1	29,243	29,243
SUBTOTAL	100-200		Restoration	2	8,231	4,116
SUBTOTAL	0-100		Enhancement	2	266,944	133,472
SUBTOTAL	100-200		Enhancement	4	42,471	10,618

*Area greater than 100' from TOB must be no greater than 10% of total mitigation. Eligible area was reduced to reflect this.
Ratios taken from Temporary Rule 15A NCAC 02B .0295 (i) and (m) as precribed in 3/1/2016 DWR Viability Letter
All Stream on Project Site has greater than 30' buffer throughout project
Alt. Enhancement for grazing (m)(2)(F) is proven through project documentation of unrestricted livestock access and attesting landowner letter

Table 2. Project Activity & Reporting History Mt. Pleasant Creek Restoration Project-Bowman Property, DMS Project #44		
Activity or Report	**Data Collection Complete (Veg plot and morphological data)**	**Actual Completion or Delivery**
Mitigation Plan		May 16
Final Design - Construction Plans		June 16
Construction		Feb 17
Planting		March 17
Baseline Monitoring/Report	March 17	April 17

Table 3. Project Contacts **Mt. Pleasant Creek Restoration Project-Bowman Property, DMS Project #44**	
Design Firm	KCI Associates of North Carolina, PC 4505 Falls of Neuse Road Suite 400 Raleigh, NC 27609 Contact: Mr. Tim Morris Phone: (919) 278-2512 Fax: (919) 783-9266
Construction Contractor	Cole Land and Timber, LLC PO Box 97 Southmont, NC 27351 Contact: Brooks Cole Phone: (336)239-4039
Invasive Treatment Contractor (Initial)	Bruton Natural Systems, Inc PO Box 1197 Fremont, NC 27830 Contact: Charlie Bruton Phone: (919)242-6555
Invasive Treatment Contractor (Long-term invasive treatment)	Carolina Silvics 1600 Olive Chapel Rd. Suite 232 Apex, NC 27502 Contact: Mary Margaret McKenny Phone: (252)482-8491
Monitoring Performers	
MY00	KCI Associates of North Carolina, PC 4505 Falls of Neuse Road Suite 400 Raleigh, NC 27609 Contact: Mr. Adam Spiller Phone: (919) 278-2514 Fax: (919) 783-9266

Table 4. Project Information Mt. Pleasant Creek Restoration Project-Bowman Property, DMS Project #44			
Project Name	Mt. Pleasant Creek Restoration Project		
County	Randolph County		
Project Area (acres)	9.61 acres		
Project Coordinates (lat. and long.)	35.7938° N, - 79.6363° W		
Project Watershed Summary Information			
Physiographic Province	Piedmont		
River Basin	Cape Fear		
USGS Hydrologic Unit 8-digit	03030003	**USGS Hydrologic Unit 14-digit**	03030003020010
DWQ Sub-basin	03-06-09		
Project Drainage Area (acres)	3,354 acres		
Project Drainage Area Percentage of Impervious Area	1%		
CGIA Land Use Classification	Piedmont Alluvial Forest 21% (3.4 ac), Dry-Mesic-Oak-Hickory Forest 42% (6.6 ac), Pasture/Disturbed Community 37% (5.8 ac)		

Existing Reach Summary Information		
Parameters	**Mt. Pleasant Creek**	**UT to Mt. Pleasant Creek**
Length of reach (linear feet)	1,866	236
Valley classification	3,354 acres	33 acres
Drainage area (acres)	WS-III	WS-III
NCDWQ Water Quality Classification	C4/1	B4/1
Morphological Description (stream type)	Stage VI	N/A
Evolutionary trend	Georgeville silt loam	Georgeville silt loam
Mapped Soil Series	Well drained	Well drained
Drainage class	Non-hydric	Non-hydric
Soil Hydric status	0.7%	0-2%
Slope	Zone AE	Zone AE
FEMA classification	Piedmont Alluvial Forest	Piedmont Alluvial Forest
Existing vegetation community	5%	5%
Percent composition of exotic invasive vegetation		

Regulatory Considerations			
Regulation	**Applicable?**	**Resolved?**	**Supporting Documentation**
Waters of the United States – Section 404	Yes	Yes	NWP 27
Waters of the United States – Section 401	Yes	Yes	NWP 27
Endangered Species Act	No	N/A	N/A
Historic Preservation Act	No	N/A	N/A
Coastal Zone Management Act (CZMA)/ Coastal Area Management Act (CAMA)	No	N/A	N/A
FEMA Floodplain Compliance	Yes	Yes	N/A
Essential Fisheries Habitat	No	N/A	N/A

APPENDIX B

Visual Assessment Data

Mount Pleasant Creek (Bowman Site)
Current Condition Plan View: As-Built 2017

0 75 150
Feet

N
W E
S

Photo Reference Photos

PP1 – MY-00 – 3/30/17

PP2 – MY-00 – 3/30/17

PP3 – MY-00 – 3/30/17

PP4 – MY-00 – 3/30/17

PP5– MY-00 – 3/30/17

PP6– MY-00 – 3/30/17

Vegetation Monitoring Plot Photos

Permanent Vegetation Plot 1 – MY-00 – 3/30/17

Temporary Vegetation Plot 1 – MY-00 – 3/30/17

Temporary Vegetation Plot 2 – MY-00 – 3/30/17

Fencing Photos

Fencing at stream crossing – MY-00 – 4/7/17

Fencing at stream crossing – MY-00 – 4/7/17

APPENDIX C

Vegetation Plot Data

Table 5. Stem Count by Plot and Species Sandy Bridge Farm Restoration Site, DMS Project #96920								
	Current Plot Data (MY00 2017)						Annual Means	
	Plot P1		Plot T1		Plot T2		MY00 (2017)	
Species	**Planted**	**Total**	**Planted**	**Total**	**Planted**	**Total**	**Planted**	**Total**
American Sycamore (*Platanus occidentalis)*	7	7	6	6	6	6	19	19
Black Walnut (*Juglans nigra*)						1		1
Blackgum (*Nyssa sylvatica*)	1	1	2	2	4	4	7	7
Silky dogwood (*Cornus amomum*)	2	2	5	5	6	6	13	13
Tulip Poplar (*Liriodendron tulipifera*)	7	7	3	3	2	2	12	12
Water Oak (*Quercus nigra)*	5	5	6	6	4	4	15	15
Stem count	22	22	22	22	22	23	66	67
size (ares)	1		1		1		3	
size (ACRES)	0.025		0.025		0.025		0.07	
Species count	5	5	5	5	5	6	5	6
Stems per ACRE	890	890	890	890	890	931	890	904
Color code:	Successful plot		Unsuccessful plot		Volunteers in plot			

Table 6. Tree Planting Mt. Pleasant Creek Restoration Project-Bowman Property, DMS Project #44			
Species	**Quantity**	**Type**	**Nursury**
Cornus ammomum	200	tubelings	Mellow Marsh Farm
Liriodendron tulipifera	200	bare roots	Superior Trees
Nyssa sylvatica	200	bare roots	Superior Trees
Platanus occidentalis	40	tubelings	Mellow Marsh Farm
Quercus nigra	200	bare roots	Superior Trees

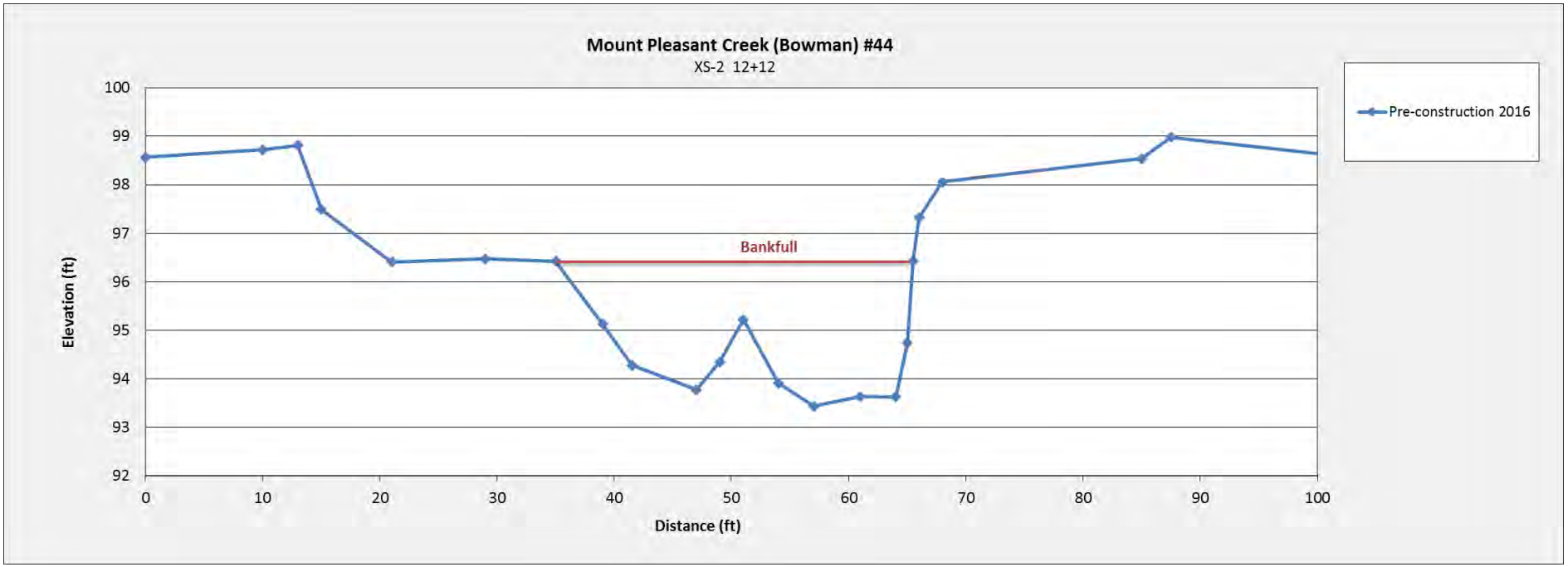
APPENDIX D

Stream Measurement and Geomorphology Data

Table 7. Cross-Section Morphology Data Tables
Mt. Pleasant Creel Restoration Project-Bowman Property, DMS Project #44

Dimension and Substrate		Cross-Section 2 (Pool) Station 12+12						Cross-Section 3 (Riffle) Station 15+25						
Based on fixed baseline elevation	Pre	Base	MY1	MY2	MY3	MY4	MY5	Base	MY1	MY2	MY3	MY4	MY5	MY+
Bankfull Width (ft)	30.5	32.1						46.7						
Floodprone Width (ft)	-	-						>100						
Bankfull Mean Depth (ft)	2.1	2.4						2.9						
Bankfull Max Depth (ft)	3	3.7						4.8						
Bankfull Cross-Sectional Area (ft^2)	64.5	75.5						136.5						
Bankfull Width/Depth Ratio	-	-						16.0						
Bankfull Entrenchment Ratio	-	-						2.0						
Bankfull Bank Height Ratio	-	-						1.0						

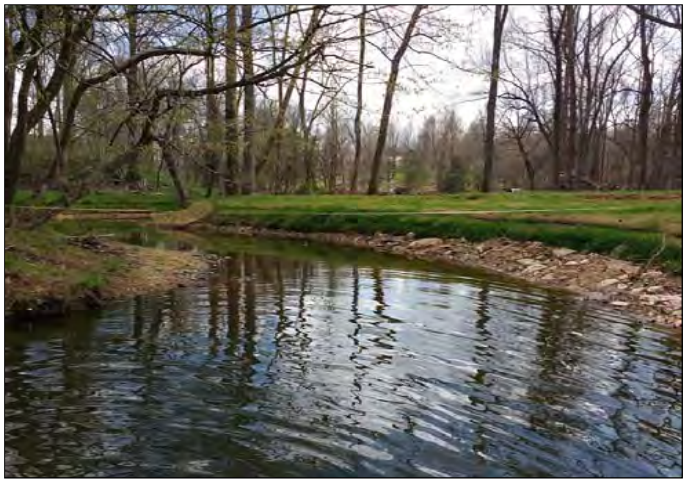
		Cross-Section 4 (Riffle) Station 17+25					
Based on fixed baseline elevation		Base	MY1	MY2	MY3	MY4	MY5
Bankfull Width (ft)	28	37.0					
Floodprone Width (ft)	>100	>100					
Bankfull Mean Depth (ft)	3	2.8					
Bankfull Max Depth (ft)	3.9	4.0					
Bankfull Cross-Sectional Area (ft^2)	83.5	103.6					
Bankfull Width/Depth Ratio	9.4	13.2					
Bankfull Entrenchment Ratio	1.1	3.4					
Bankfull Bank Height Ratio	1.0	1.0					



XS- 2 12+12

SUMMARY DATA (BANKFULL, IN FEET)	
A (BKF)	64.5
W (BKF)	30.5
Max d	3
Mean d	2.1
W/D	14.4

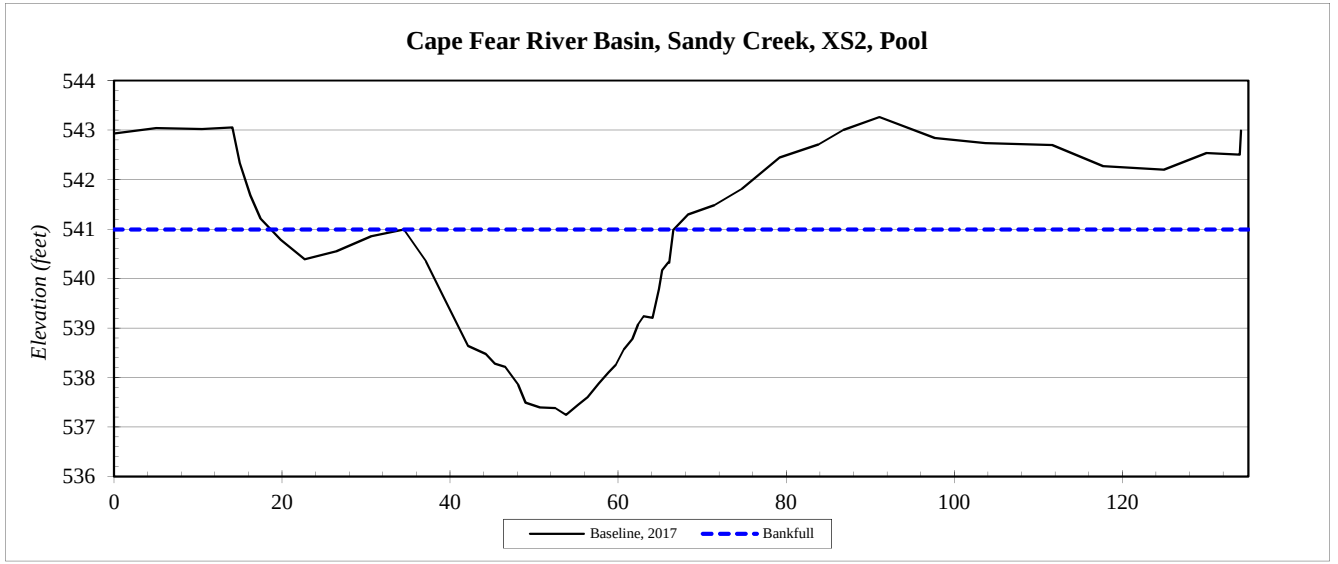
River Basin:	Cape Fear
Watershed:	Sandy Creek
XS ID	XS2, Pool
Drainage Area (sq mi):	5.24
Date:	3/30/2017
Field Crew:	T. Seelinger, K. O'Briant



Station	Elevation
0.0	542.93
5.0	543.04
10.5	543.02
14.1	543.05
15.0	542.33
16.2	541.68
17.4	541.21
19.8	540.78
22.7	540.39
26.5	540.55
30.6	540.85
34.5	540.99
37.2	540.35
39.2	539.65
42.2	538.64
44.2	538.47
45.3	538.28
46.6	538.22
48.1	537.86
49.0	537.49
50.7	537.40
52.5	537.38
53.8	537.24
55.2	537.45
56.4	537.60
57.7	537.88
58.9	538.10
59.7	538.26
60.7	538.56
61.7	538.78
62.4	539.08
63.0	539.24
64.1	539.21
64.9	539.79
65.2	540.17
66.0	540.32
66.1	540.32

Station	Elevation
66.6	540.98
68.3	541.29
71.5	541.48
74.7	541.81
79.2	542.44
83.9	542.71
86.8	543.00
91.1	543.26
97.7	542.84
103.7	542.74
111.7	542.70
117.7	542.27
124.9	542.20
130.0	542.53
134.0	542.50
134.1	542.99

SUMMARY DATA	
Bankfull Elevation:	541.0
Bankfull Cross-Sectional Area:	75.5
Bankfull Width:	32.1
Flood Prone Area Elevation:	-
Flood Prone Width:	-
Max Depth at Bankfull:	3.7
Mean Depth at Bankfull:	2.4
W / D Ratio:	-
Entrenchment Ratio:	-
Bank Height Ratio:	-

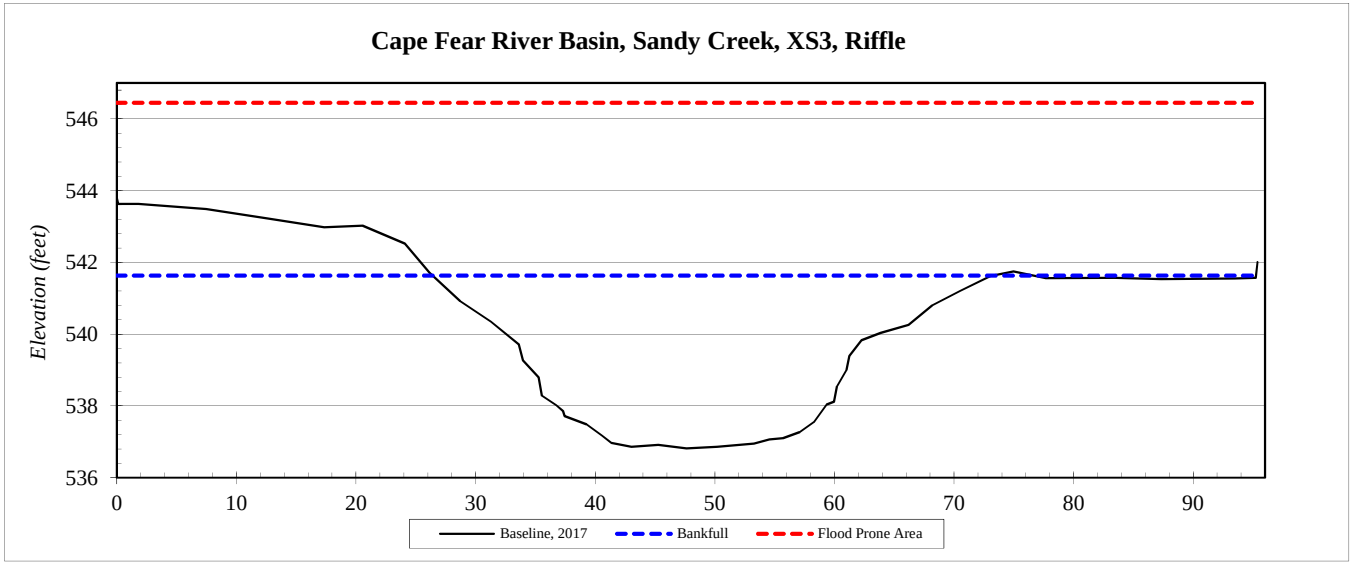


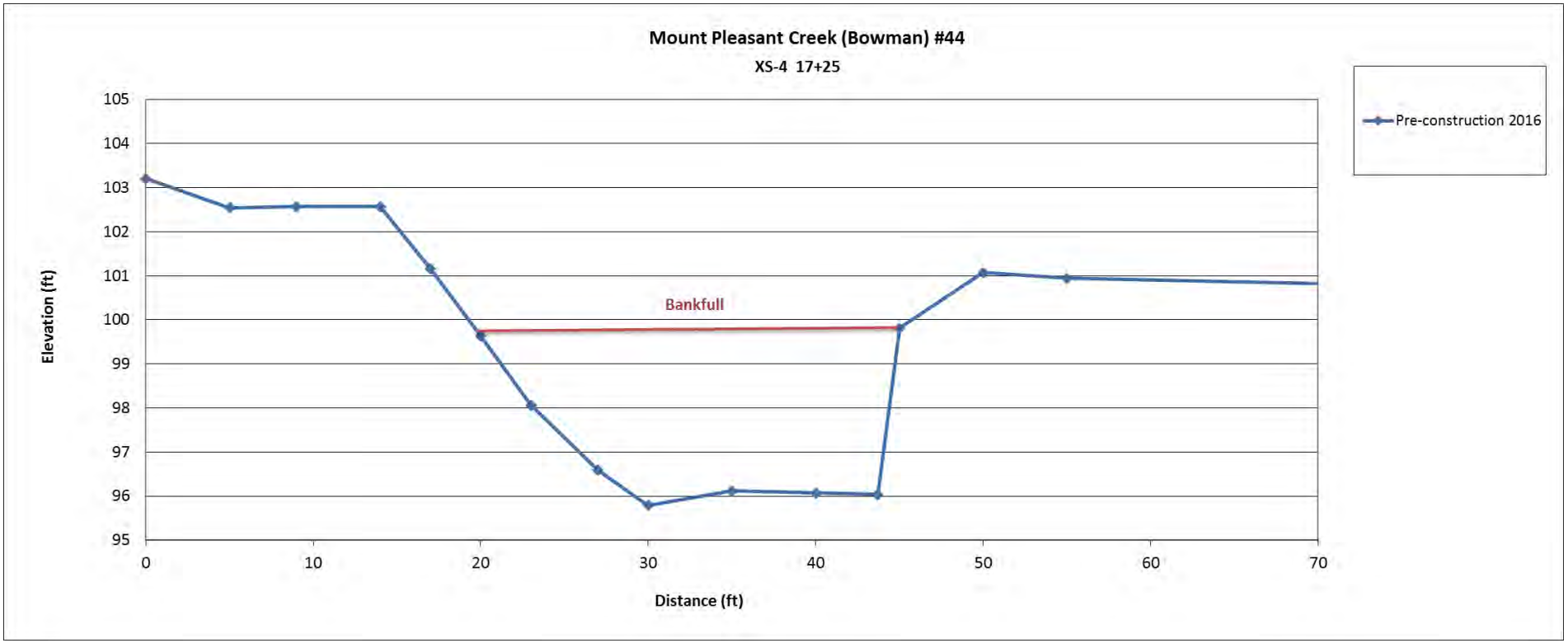
River Basin:	Cape Fear
Watershed:	Sandy Creek
XS ID	XS3, Riffle
Drainage Area (sq mi):	5.24
Date:	3/30/2017
Field Crew:	T. Seelinger, K. O'Briant

Station	Elevation
0.0	543.82
0.1	543.63
1.8	543.63
7.5	543.49
12.5	543.23
17.3	542.98
20.5	543.02
24.1	542.53
26.1	541.71
28.7	540.92
31.3	540.34
33.6	539.72
34.0	539.27
35.3	538.80
35.5	538.29
36.7	538.02
37.3	537.86
37.4	537.72
39.3	537.48
40.6	537.18
41.4	536.97
43.0	536.86
45.3	536.91
47.6	536.82
50.2	536.86
53.3	536.95
54.6	537.06
55.7	537.11
57.1	537.27
58.3	537.56
59.3	538.04
60.0	538.12
60.2	538.54
61.0	539.00
61.2	539.40
62.3	539.83

Station	Elevation
63.9	540.04
66.2	540.26
68.2	540.80
70.5	541.20
73.1	541.63
75.0	541.75
77.7	541.56
83.5	541.57
87.3	541.53
93.5	541.56
95.2	541.57
95.4	542.01

SUMMARY DATA	
Bankfull Elevation:	541.6
Bankfull Cross-Sectional Area:	136.5
Bankfull Width:	46.7
Flood Prone Area Elevation:	546.4
Flood Prone Width:	>100
Max Depth at Bankfull:	4.8
Mean Depth at Bankfull:	2.9
W / D Ratio:	16.0
Entrenchment Ratio:	2.0
Bank Height Ratio:	1.0





XS- 4 17+25

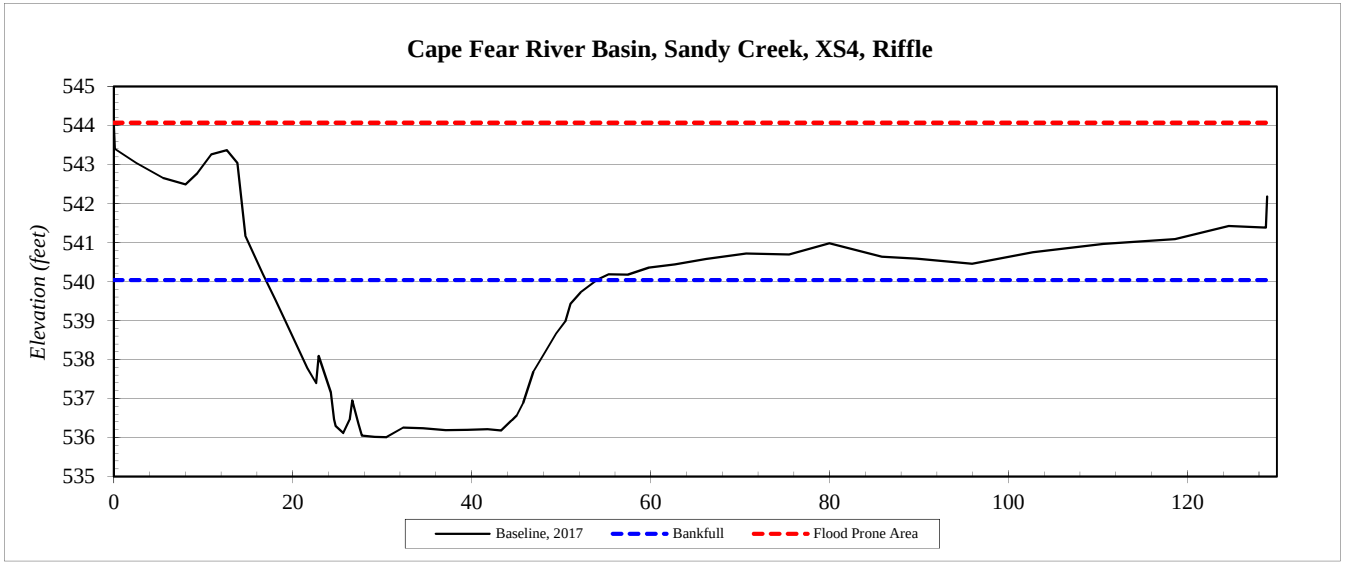
SUMMARY DATA (BANKFULL, IN FEET)	
A (BKF)	83.5
W (BKF)	28.0
Max d	3.9
Mean d	3.0
W/D	9.4

River Basin:	Cape Fear
Watershed:	Sandy Creek
XS ID	XS4, Riffle
Drainage Area (sq mi):	5.24
Date:	3/30/2017
Field Crew:	T. Seelinger, K. O'Briant

Station	Elevation
0.0	543.99
0.1	543.40
2.5	543.04
5.5	542.65
8.0	542.49
9.3	542.78
10.9	543.26
12.6	543.37
13.8	543.04
14.7	541.18
16.7	540.20
18.1	539.54
19.2	539.00
21.7	537.78
22.6	537.39
22.9	538.09
24.3	537.15
24.6	536.47
24.8	536.30
25.7	536.12
26.4	536.46
26.6	536.95
27.3	536.36
27.7	536.05
29.2	536.02
30.5	536.01
32.3	536.26
34.6	536.24
37.1	536.19
39.5	536.19
41.8	536.21
43.3	536.18
44.4	536.42
44.5	536.44
45.1	536.57
45.7	536.89
46.9	537.69

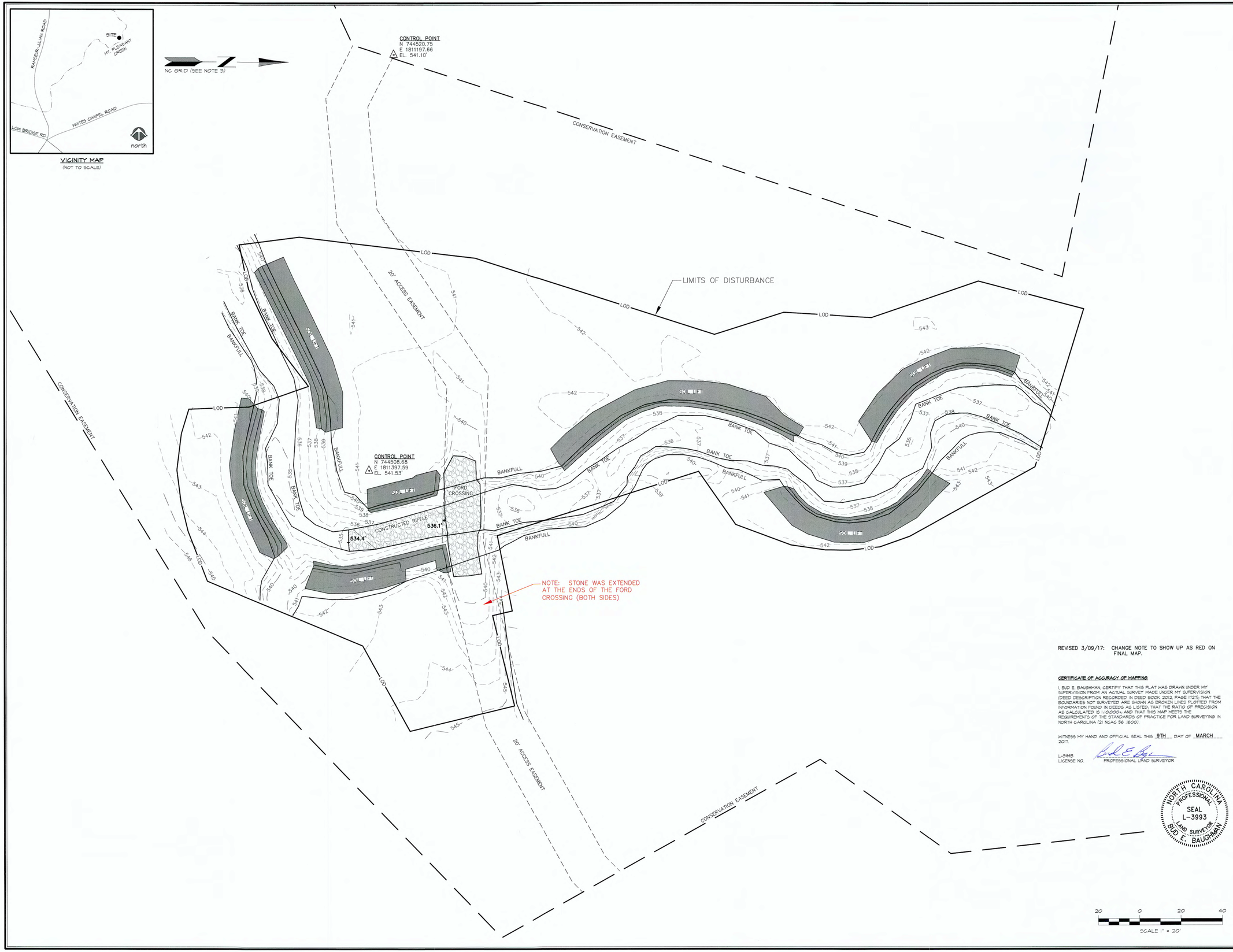
SUMMARY DATA	
Bankfull Elevation:	540.0
Bankfull Cross-Sectional Area:	103.6
Bankfull Width:	37.0
Flood Prone Area Elevation:	544.1
Flood Prone Width:	>100
Max Depth at Bankfull:	4.0
Mean Depth at Bankfull:	2.8
W / D Ratio:	13.2
Entrenchment Ratio:	3.4
Bank Height Ratio:	1.0

Station	Elevation
48.2	538.18
49.4	538.67
50.5	538.98
51.0	539.43
52.2	539.73
54.0	540.04
55.3	540.19
57.5	540.17
59.8	540.36
62.7	540.44
66.2	540.58
70.7	540.72
75.5	540.69
80.0	540.98
85.8	540.64
89.7	540.59
95.9	540.45
102.7	540.75
110.6	540.96
118.6	541.09
124.6	541.42
128.8	541.38
128.9	542.18



APPENDIX E

As-built Plan Sheets



REVISED 3/09/17: CHANGE NOTE TO SHOW UP AS RED ON FINAL MAP.

CERTIFICATE OF ACCURACY OF MAPPING

I, BUD E. BAUGHMAN, CERTIFY THAT THIS PLAT WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION (DEED DESCRIPTION RECORDED IN DEED BOOK 3012, PAGE 1727); THAT THE BOUNDARIES NOT SURVEYED ARE SHOWN AS BROKEN LINES PLOTTED FROM INFORMATION FOUND IN DEEDS AS LISTED; THAT THE RATIO OF PRECISION AS CALCULATED IS 1:10,000+; AND THAT THIS MAP MEETS THE REQUIREMENTS OF THE STANDARDS OF PRACTICE FOR LAND SURVEYING IN NORTH CAROLINA (21 NCAC 56 .1600).

WITNESS MY HAND AND OFFICIAL SEAL THIS 9TH DAY OF MARCH 2017.

L-3993
LICENSE NO.

PROFESSIONAL LAND SURVEYOR

NORTH CAROLINA PROFESSIONAL SEAL L-3993 LAND SURVEYOR BUD E. BAUGHMAN

MLA GROUP
CIVIL ENGINEERS • SURVEYORS • LANDSCAPE ARCHITECTS
120 Club Oaks Ct. Suite 100
Winston-Salem, NC 27104
336.765.1923
WWW.MILLERLA.COM
TURNING LAND INTO LANDMARKS
NC CORPORATE LICENSE #C-3999

NOTES:

1. THIS IS NOT A BOUNDARY SURVEY. THE PURPOSE OF THIS MAP IS TO SHOW TOPOGRAPHY AND AS-BUILT STRUCTURES FOR A STREAM RESTORATION PROJECT. ANY BOUNDARY AND EASEMENT LINES SHOWN HEREON HAVE BEEN TAKEN FROM REFERENCE # BELOW.
2. DISTANCES SHOWN ARE HORIZONTAL GROUND DISTANCES UNLESS NOTED OTHERWISE. DISTANCES, COORDINATES AND ELEVATIONS LISTED ARE IN U.S. SURVEY FEET UNLESS NOTED OTHERWISE.
3. REFERENCE # INDICATES THAT THIS PROJECT IS ON NORTH CAROLINA GRID (NAD83) AND VERTICAL DATUM NAVD88. CONTROL INFORMATION HAS BEEN PROVIDED BY THE PROJECT ENGINEER. SURVEYOR MAKES NO CERTIFICATION AS TO THE ACCURACY OR PRECISION OF HORIZONTAL OR VERTICAL LOCATIONS OF CONTROL POINTS USED FOR THIS SURVEY.
4. SURVEY FIELD WORK COMPLETED ON FEBRUARY 21, 2017.
5. THIS SURVEY IS SUBJECT TO ANY AND ALL FACTS THAT MAY BE DISCLOSED BY A FULL TITLE SEARCH WHICH HAS NOT BEEN FURNISHED TO SURVEYOR AS OF THIS DATE.
6. CHANGES FROM CONSTRUCTION PLANS ARE SHOWN IN RED.

REFERENCES:

1. DESIGN/CONSTRUCTION PLANS PREPARED BY KCI ASSOCIATES, OF NC FOR "MT. PLEASANT CREEK PROJECT (BOWMAN PROPERTY), DMS #44" DATED 9/29/2016, SIGNED/SEALED BY GARY MICHAEL MRYNCZA.
2. PLAT ENTITLED "BOUNDARY SURVEY AND CONSERVATION EASEMENT DEDICATION MAP OF THE MARTHA LEE BOWMAN PROPERTY" RECORDED SEPTEMBER 25, 2014 IN PLAT BOOK 141, PAGE 84, RANDOLPH COUNTY REGISTRY.

CURRENT OWNER:
MICKEY C. BOWMAN
5213 WHITE'S CHAPEL ROAD
STANLEY, NC 27355

TOWNSHIP: COLUMBIA
COUNTY: RANDOLPH
STATE: NC

Date: MARCH 1, 2017
SURVEYED BY: BB
MAPPED BY: BB
PROJECT # LS-17002

AS-BUILT TOPOGRAPHIC SURVEY MT. PLEASANT CREEK RESTORATION PROJECT DMS #44 RANDOLPH COUNTY NORTH CAROLINA

APPENDIX F

Additional Information

October 25, 2016

To Whom It May Concern,

I attest that the cattle on my property had unrestricted access to the conservation easement recorded at Deed Book 2408/Page 1076 up until fencing was installed on or around 2009. This easement covers the area of Mount Pleasant Creek, in a project for the State of North Carolina and the Department of Transportation called "*Bowman Site/Mount Pleasant Creek Project #44*."

Thank you,

Mickey C. Bowman
5173 Whites Chapel Road
Staley, NC 27355