

Duke Swamp Tributary Site
EEP ID (IMS) # 92544
FDP CONTRACT NUMBER # D06065-A
USACE ACTION ID # 2007-02187-137
DWQ 401 # 07-0810

CLOSEOUT REPORT

Stream and Wetland



Project Setting & Classifications

County:	Gates
General Location:	Sunbury, NC
Basin:	Chowan
Physiographic Region:	Coastal Plain
Ecoregion:	Carolina Flatwoods
USGS Hydro Unit:	03010203040010
NCDWQ Sub-basin:	03-01-01
Wetland Classification:	Riverine
Thermal Regime:	Warm
Trout Water:	N/A
Project Performers	
Source Agency:	EEP
Designer:	Michael Baker Engineering, Inc.
Monitoring Firm:	Michael Baker Engineering, Inc.
Channel Remediation:	River Works, Inc.
Plant remediation:	River Works, Inc.
Property Interest Holder:	DENR Stewardship

Overall Project Activities and Timeline

Milestone	Month-Year
Project Contracted	July 2006
Permitted	July 2007
Construction Completed	December 2007
Minor Channel Repair	November 2008
As-built survey	October 2007
Monitoring Year-1	December 2008
Supplemental Planting	February 2009
Monitoring Year-2	December 2009
Monitoring Year 3	December 2010
Monitoring Year 4	December 2011
Supplemental Planting	March 2012
Monitoring Year 5	December 2012
Supplemental Planting	January 2013
Closeout Submission	January 2013

Project Setting and Background Summary

The Duke Swamp Tributary Site (Site) is located in Gates County, approximately nine miles northeast of the Town of Gatesville NC. Historically, land use surrounding the Site has consisted of agricultural production. The project area along the main tributary (Reach UT1a) was used for seasonally rotated crop production. Prior to restoration efforts, the system was severely channelized and existing hydric soils areas were ditched and drained. Frequent mowing and farming practices had prevented the establishment of native species wetland vegetation, which resulted in an inadequate riparian buffer along Reach UT1a. Additionally, the historic flow pattern and flooding regime of Reach UT2 had been altered significantly. Backwater effects resulted from an existing spoil pile that ran along the right bank of Reach UT1b in the forested wetland area. Flows were diverted along this spoil pile, which prevented a natural connection between Reach UT1b and UT2.

The adjacent areas on both sides of UT1a had been cleared of woody vegetation along the entire reach. The stream bank areas of UT1a were periodically maintained by mowing. A small amount of wooded buffer was present at the downstream end of Reach UT1b, but the channel was overly wide with side cast spoil present along both sides. The Site agricultural areas proposed for restoration were drained and mapped primarily as "A" list hydric soils (Nawney series). Former wetlands adjacent to the stream channel no longer supported hydrophytic vegetation.

During the five-year monitoring period, one stream repair activity was completed. Following construction, the Site experienced a bank/floodplain stability issue on the lower portion of Reach UT1a between stations 46+00 and 49+00. The left bank and floodplain in this section of the Site had subsided and was underwater during normal flow periods. Repairs to this portion of the Site were completed in November 2008. Current observations show that the repaired area is stable and does not exhibit any restoration-related problems.

Throughout the five-year monitoring period, routine maintenance and repair activities were performed across the Site. The Site was re-planted in February 2009 in order to increase the stems per acre within the floodplain. The re-planting was limited to the floodplain area below the terrace of Reach UT1a. The re-planting started at approximate station 49+75 and terminated near the upstream culvert crossing (SR 1520), at station 11+00. Following Year 3 monitoring, it was determined that four of the twelve vegetation plots (5, 10, 11 and 12) were still not meeting the success criteria of 320 surviving stems per acre. Two subsequent supplemental planting events occurred in March 2012 and January 2013.

After construction, a total of 12.0 acres (AC) of riverine wetlands and 5,382 linear feet (LF) of stream were restored on the Site. The project also enhanced an additional 7.6 AC of riverine wetlands. A conservation easement totaling 25.4 AC has been recorded that protects the streams, wetlands, and riparian buffers in perpetuity.

Goals and Objectives

The specific goals and objectives for the Duke Swamp Tributary Site were as follows:

Water Quality

- Reduce nutrient loading to receiving waters by establishment of riparian buffers,
- Reduce sediment supply by slowing/filtering surface runoff across riparian buffers,
- Increase pollutant retention through wetland filtering.

Water Quantity/Flood Attenuation

- Increase water storage/flood control by establishment of vegetated floodplain,
- Improve ground water recharge throughout floodplain areas by increasing infiltration rates,
- Restore hydrologic connections and functionality between stream/wetland/floodplain.

Aquatic and Terrestrial Habitat

- Improve bedform diversity and in-stream cover by installing structures and large woody debris
- Reduce water temperature by establishing riparian vegetation and increasing shading,
- Improve terrestrial habitat by restoring ecosystem diversity and stream and wetland functionality

Success Criteria

Restoration Component	Success Criteria	Performance Standard Met
Ut1a: Cross Sections	There should be little change in as-built cross-sections. If changes do take place, they will be evaluated to determine if they represent a movement toward a more unstable condition (e.g., down-cutting or erosion) or a movement toward increased stability (e.g., settling, vegetative changes, deposition along the banks, or decrease in width/depth ratio). Cross-sections will be classified using the Rosgen Stream Classification System, and all monitored cross-sections should fall within the quantitative parameters defined for channels of the designed stream type.	Yes
Ut1a: Longitudinal Profile	A complete longitudinal profile was surveyed following construction completion to record as-built conditions and to establish a baseline profile. A longitudinal profile will be completed during each year of the five-year monitoring period. The profiles will be conducted for the entire length of the restored channel (UT1a). Measurements will include thalweg, water surface, inner berm, bankfull, and top of low bank. Each of these measurements will be taken at the head of each feature (e.g., riffle, pool, and glide). In addition, maximum pool depth will be recorded. All surveys will be tied to a single, permanent benchmark.	Yes
Ut1a: Stream Hydrology	Two bankfull flow events must be documented within the five-year monitoring period. The two bankfull events must occur in separate years, otherwise, the stream monitoring will continue until two bankfull events have been documented in separate years.	Yes
Ut1a: Vegetation	To characterize vegetation success criteria objectively, specific goals for woody vegetation density have been defined. Data from vegetation monitoring plots should display a surviving tree density of at least 320 trees per acre at the end of the third year of monitoring, and a surviving tree density of at least 260 five-year-old trees per acre at the end of the five-year monitoring period.	Yes
Ut1b & Ut2: Stream Hydrology	Two bankfull flow events must be documented within the 5-year monitoring period. The two bankfull events must occur in separate years; otherwise, the stream monitoring will continue until two bankfull events have been documented in separate years. The water level monitoring gauges should document the occurrence of periodic inundation and varying groundwater levels across the restored site. The gauges should also document the connectivity of flooding between the restored UT1b and UT2 reaches. Photographs and video footage will be used to document restoration success in the UT1b and UT2 area visually.	Yes
Wetland Area 1: Wetland Hydrology	The primary objective of groundwater monitoring is to show that the Site is saturated within 12 inches of the soil surface for at least 8 percent of the growing season and that the Site exhibits an increased frequency of flooding. The restored site's hydrology was compared to pre-restoration conditions both in terms of groundwater and frequency of overbank events. Following construction, five groundwater monitoring wells/stations were installed to document hydrologic success of the Site.	Yes

ASSET TABLE

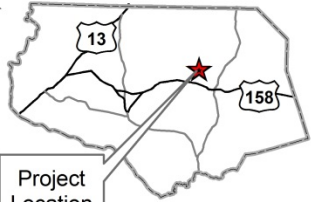
Restoration Segment/Reach	Pre-Construction (acreage/linear feet)	Mitigation Approach	Watershed Acreage (mi²)	As-Built (acreage/linear feet)	Mitigation Ratio	Mitigation Units (SMU/WMU)
UT1a	2,860	R PI/PII	0.15 (2.8 sq mi)	3,972	1:1	3,972
UT1b	880	R CPHW*	0.41 (2.9 sq mi)	895	1:1	895
UT2	880	R CPHW*	0.48 (0.03 sq mi)	515	1:1	515
Wetland Area #1	0	R	-	12.0	1:1	12
Wetland Area #2	2.1	E	-	2.1	2:1	1.05
Wetland Area #3	5.5	E	-	5.5	2:1	2.75
*CPHW = Coastal Plain Headwater Rehabilitation						
MITIGATION UNIT TOTALS						
Stream Mitigation Units (SMU)	Riparian Wetland Units	Non-riparian Wetland Units	Total Wetland (WMU)	Riparian Buffer	Nutrient Offset	
5,382	15.8	0	15.8	0		



Project Location



Gates County



Project Location

**Project Vicinity Map
Duke Swamp Site**

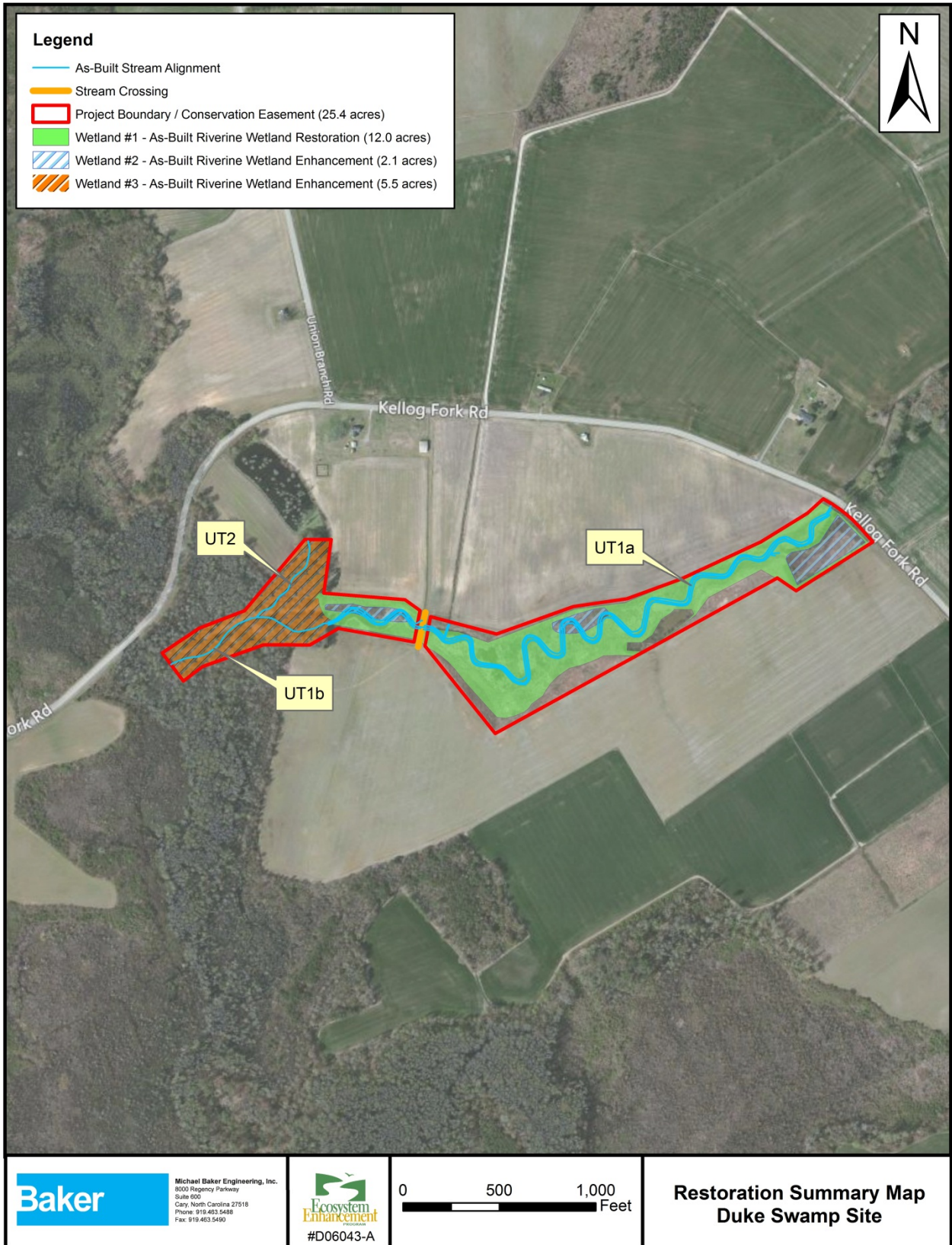


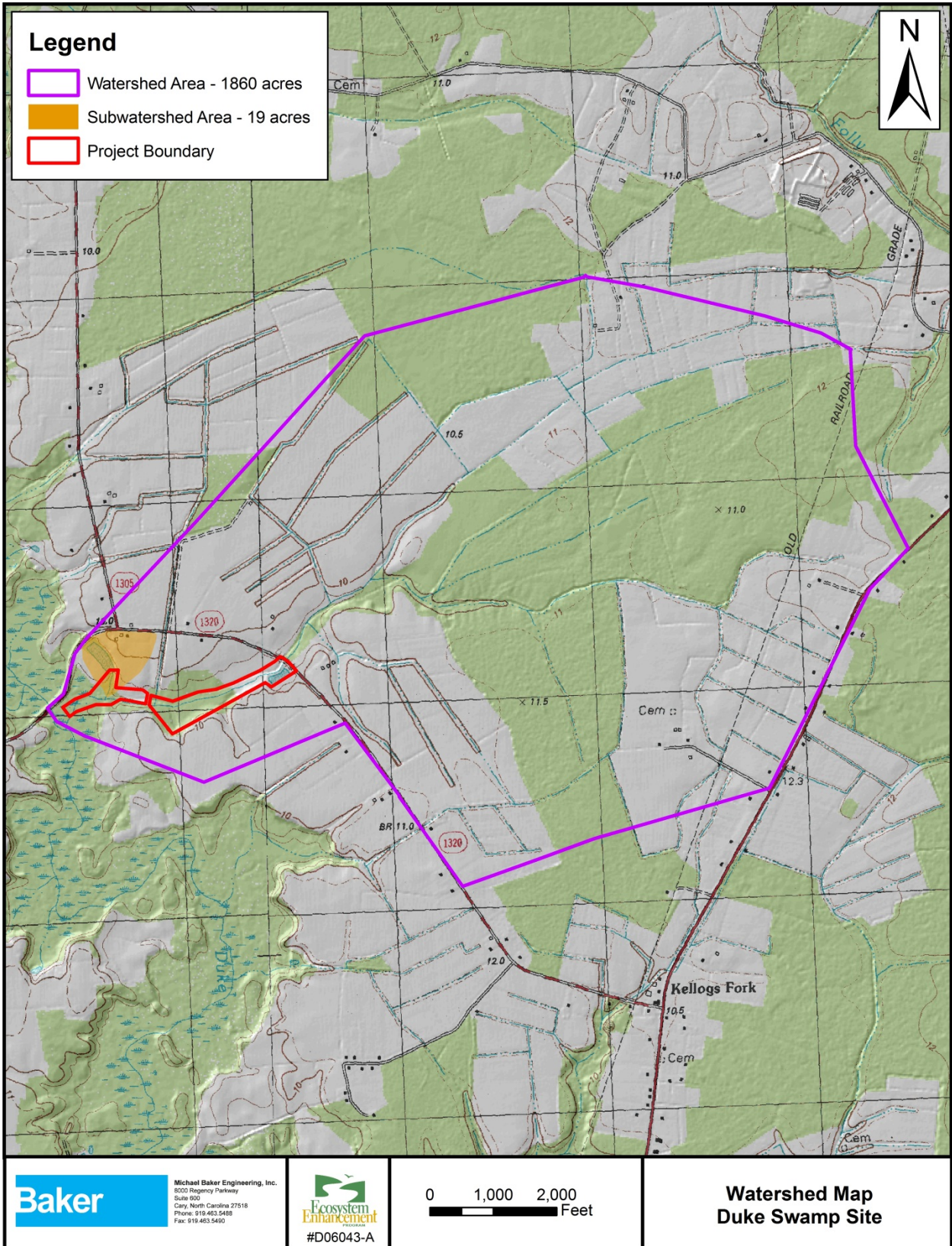
Baker

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Suite 603
Cary, North Carolina 27518
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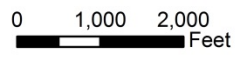
Legend

- Watershed Area - 1860 acres
- Subwatershed Area - 19 acres
- Project Boundary

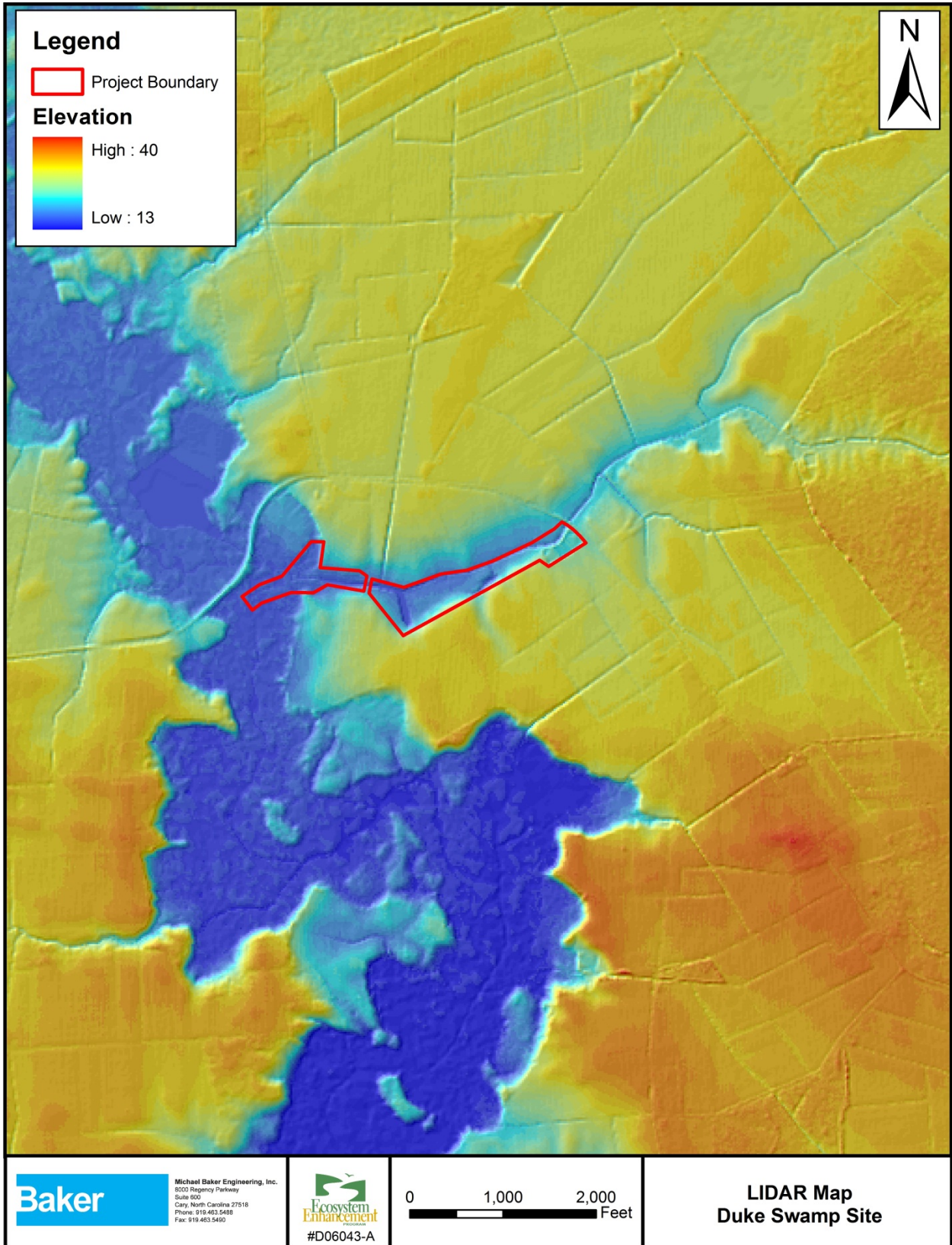


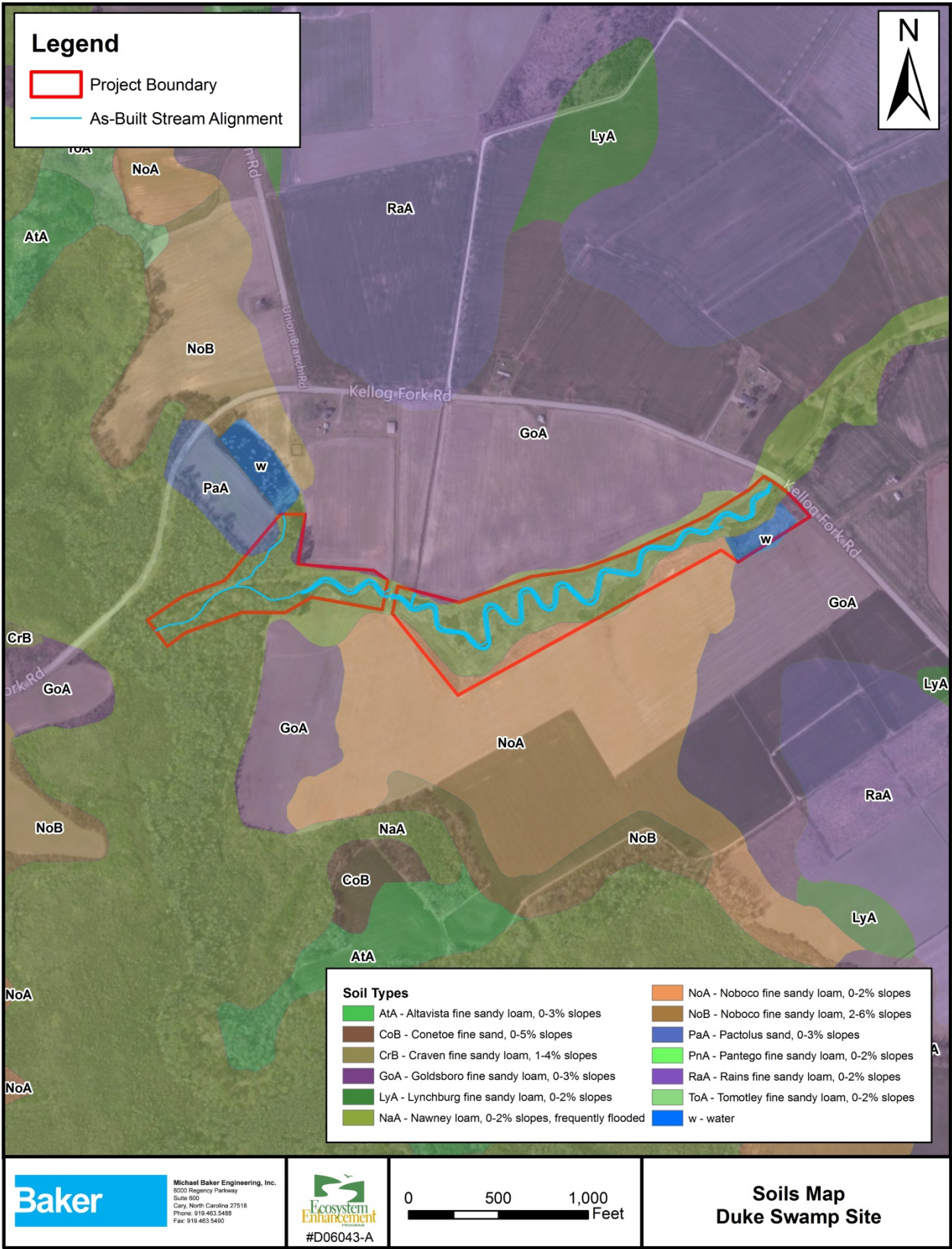
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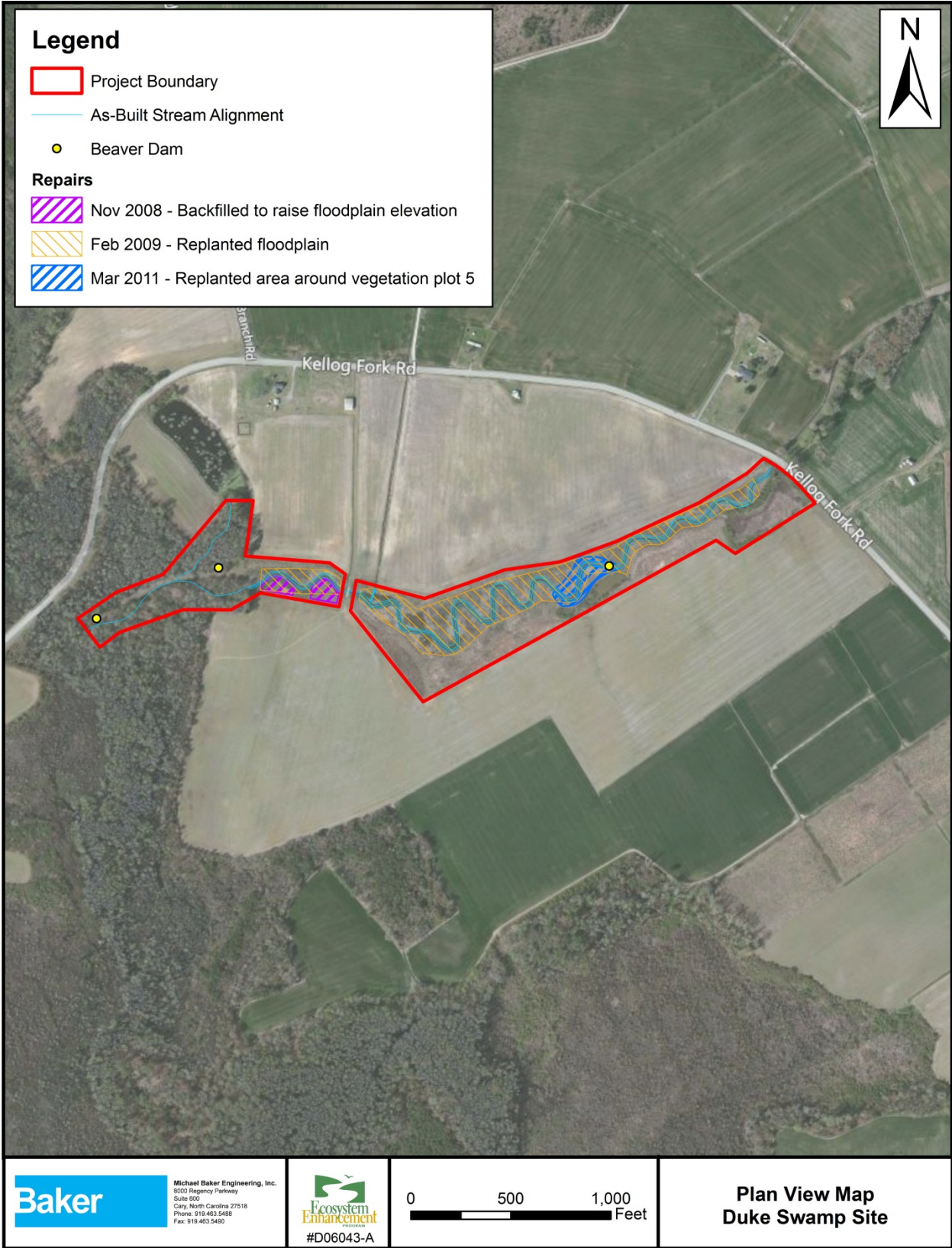
Michael Baker Engineering, Inc.
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 Cary, North Carolina 27518
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**Watershed Map
 Duke Swamp Site**







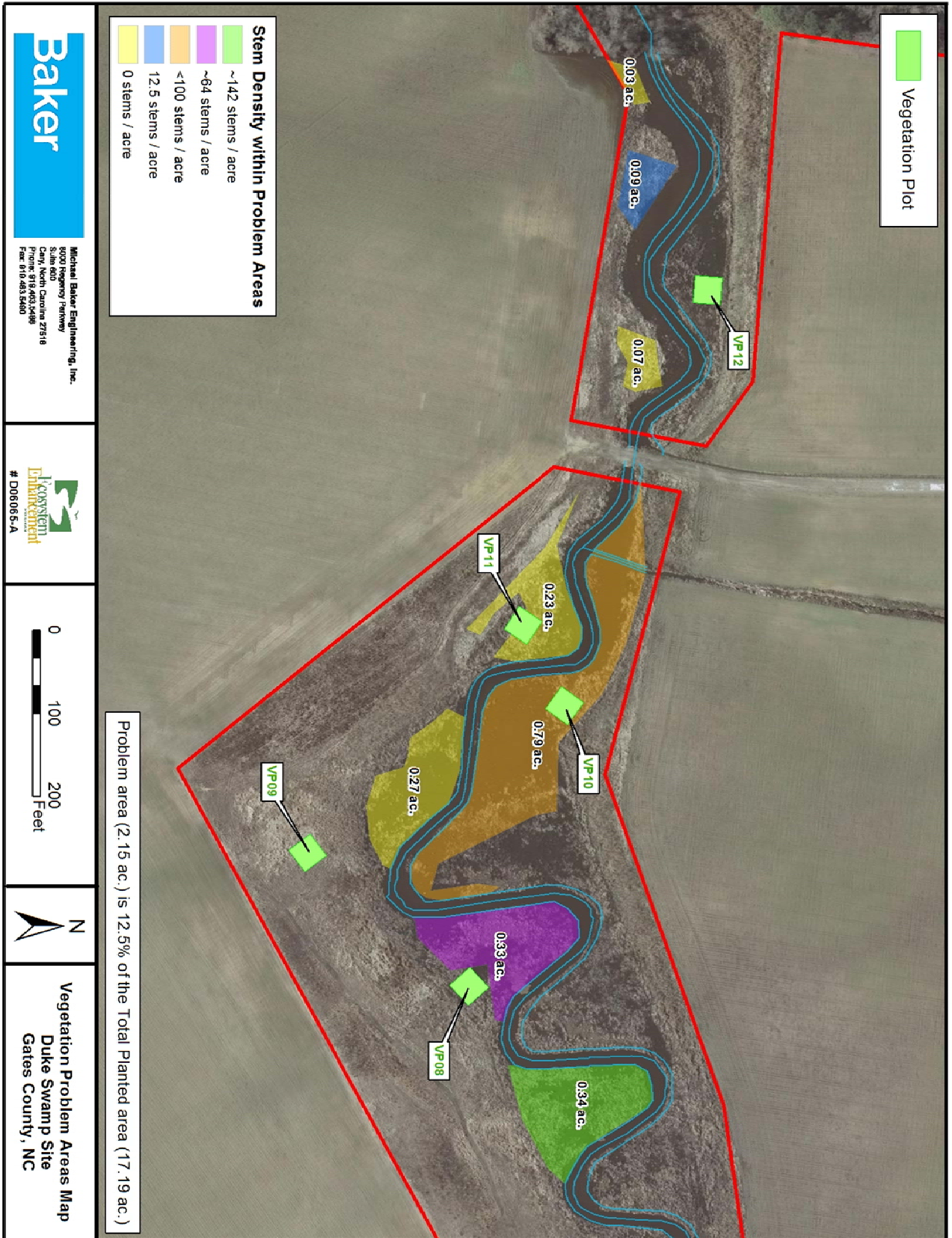
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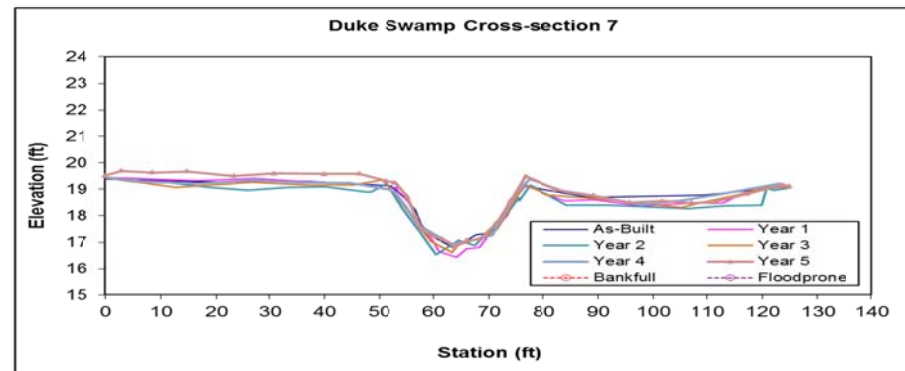
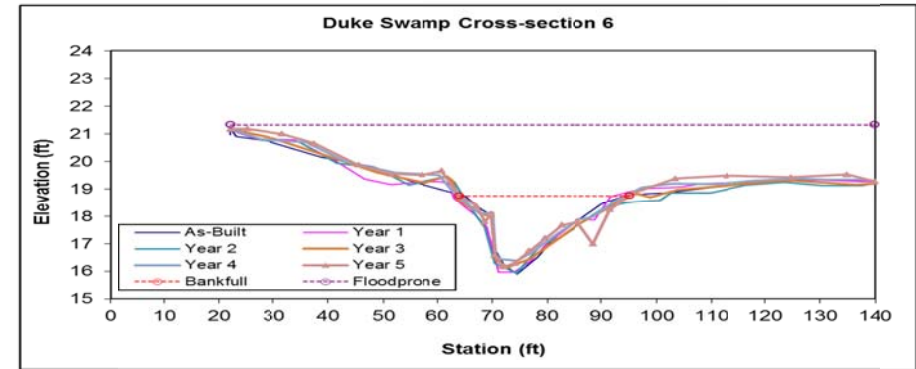
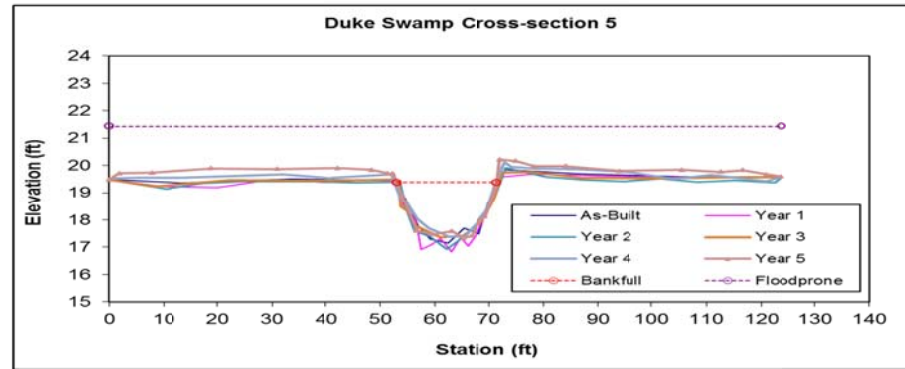
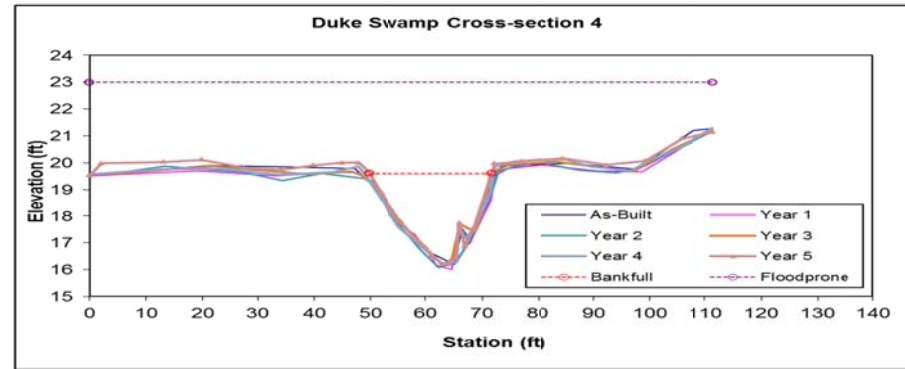
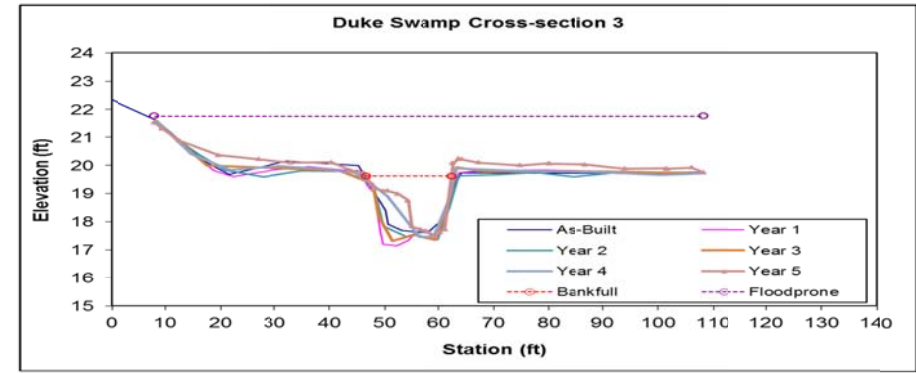
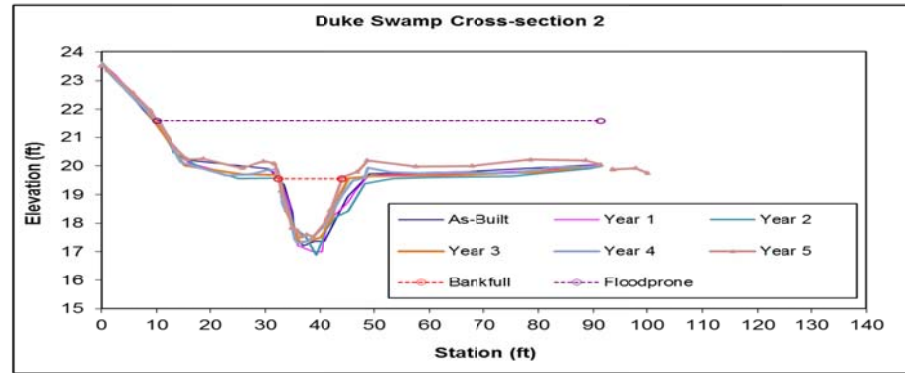
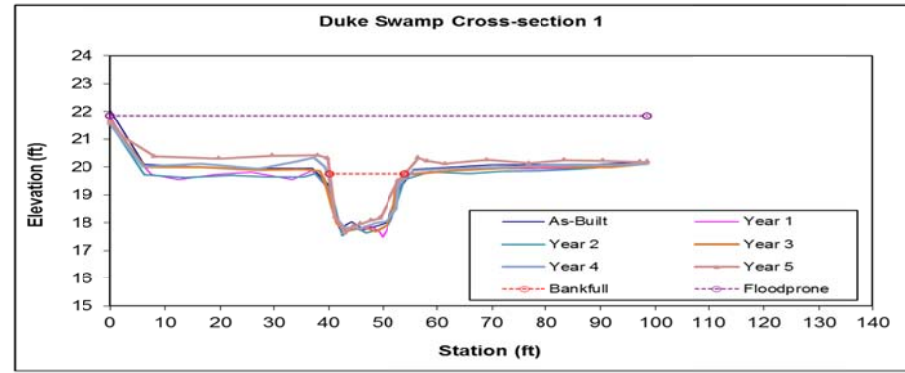
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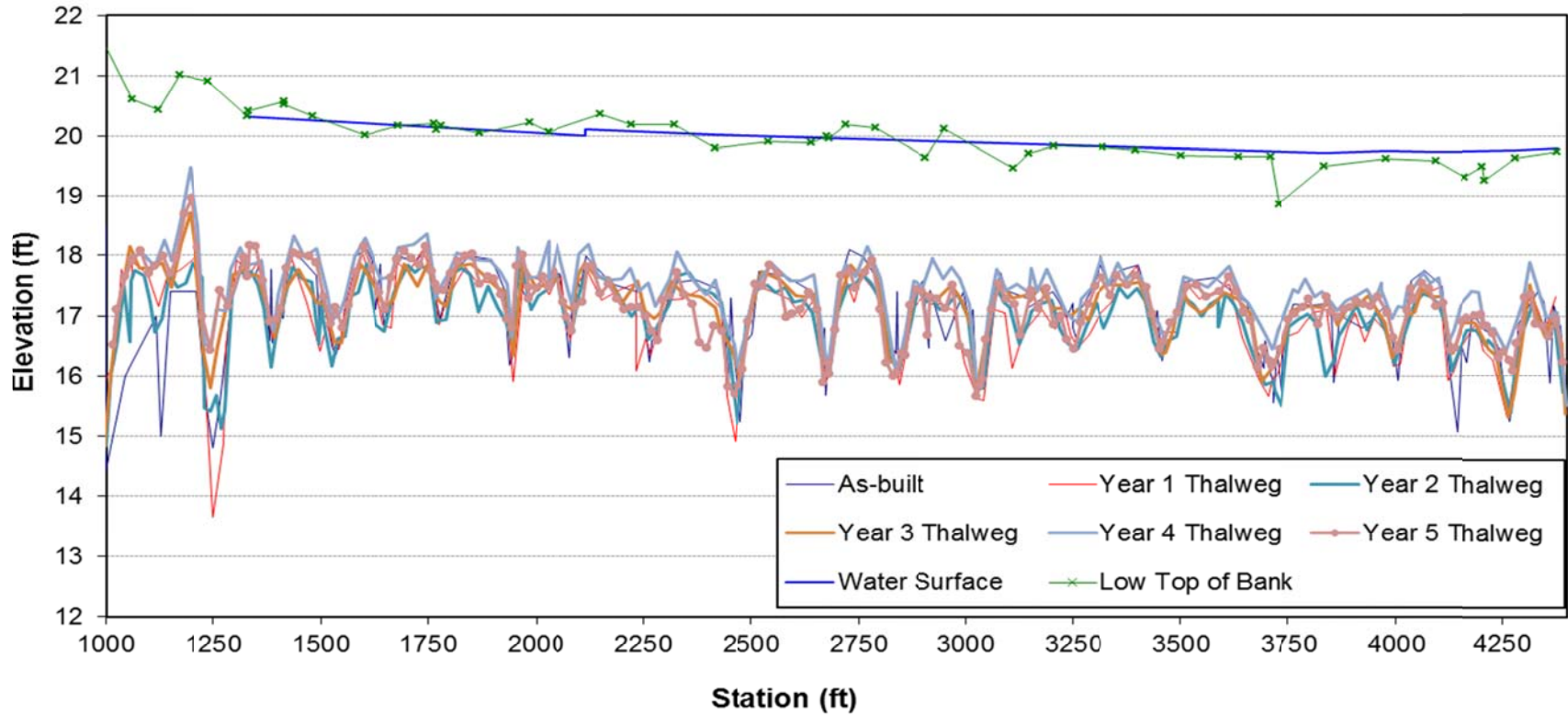
0 500 1,000 Feet

**Plan View Map
 Duke Swamp Site**





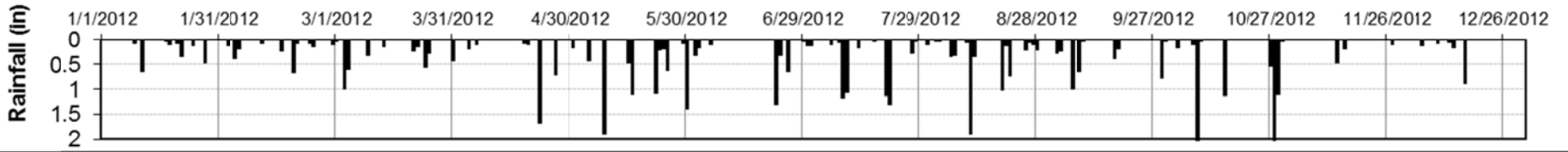
Duke Swamp Longitudinal Profile Station 10+00 to 43+98



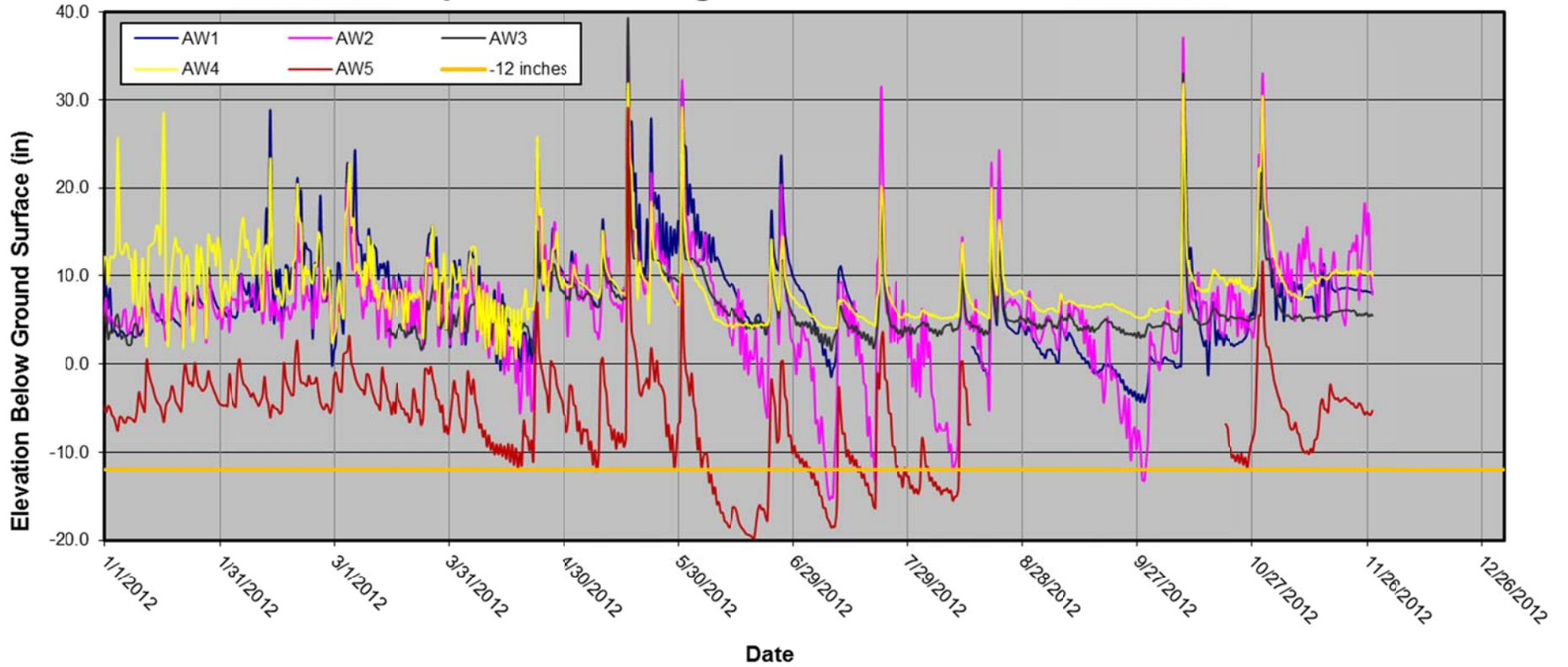
Morphology and Hydraulic Monitoring Summary
Duke Swamp Tributary Site: EEP Contract No. D06065-A

Reach: UT1a																				
Parameter	Cross-section 1					Cross-section 2					Cross-section 3					Cross-section 4				
	Riffle					Pool					Riffle					Pool				
	MY1	MY2	MY3	MY4	MY5	MY1	MY2	MY3	MY4	MY5	MY1	MY2	MY3	MY4	MY5	MY1	MY2	MY3	MY4	MY5
Dimension																				
BF Width (ft)	17.01	19.81	17.38	15.21	13.99	16.79	20.59	12.70	14.90	11.83	18.07	18.96	18.53	17.35	21.90	25.10	30.84	24.48	23.20	21.90
BF Mean Depth (ft)	1.44	1.23	1.34	1.44	1.35	1.41	1.12	1.48	1.27	1.37	1.69	1.44	1.51	1.20	2.00	1.91	1.64	1.80	2.02	2.00
Width/Depth Ratio	11.8	16.1	13.0	10.6	10.4	11.9	18.4	8.6	11.7	8.6	10.7	13.2	12.3	14.5	11.0	13.1	18.9	13.6	11.5	11.0
BF Cross-sectional Area (ft²)	24.5	24.4	23.3	21.9	18.8	23.6	23.1	18.8	18.9	16.2	30.5	27.3	28.0	20.7	43.7	48.0	50.4	44.1	46.8	43.7
BF Max Depth (ft)	2.27	2.21	2.06	1.96	2.10	2.64	2.66	2.21	2.26	2.03	2.57	2.24	2.29	2.17	3.39	3.61	3.51	3.4	3.43	3.39
Width of Floodprone Area (ft)	98.43	98.44	98.49	98.57	98.55	84.40	84.35	82.46	82.40	81.11	108.22	100.14	100.17	100.24	100.18	111.31	111.28	111.37	111.38	111.41
Entrenchment Ratio	5.8	5.0	5.7	6.5	7.0	5.0	4.1	6.5	5.5	6.9	5.5	5.3	5.4	5.8	5.1	4.4	3.6	4.5	4.8	5.1
Bank Height Ratio	1.0	1.0	1.0	1.1	1.3	1.0	0.9	1.0	1.1	1.3	1.0	1.0	0.9	1.1	1.1	1.0	1.0	1.0	1.1	1.1
Wetted Perimeter (ft)	19.89	22.27	20.06	18.09	16.69	19.61	22.83	15.66	17.44	14.57	21.45	21.84	21.55	19.75	25.90	28.92	34.12	28.08	27.24	25.90
Hydraulic Radius (ft)	1.232	1.096	1.162	1.211	1.126	1.203	1.012	1.201	1.084	1.112	1.422	1.250	1.299	1.048	1.687	1.660	1.477	1.571	1.718	1.687
Substrate																				
d50 (mm)																				
d84 (mm)																				
Reach: UT1a																				
Parameter	Cross-section 5					Cross-section 6					Cross-section 7									
	Riffle					Pool					Riffle									
	MY1	MY2	MY3	MY4	MY5	MY1	MY2	MY3	MY4	MY5	MY1	MY2	MY3	MY4	MY5					
Dimension																				
BF Width (ft)	19.62	19.47	18.47	18.76	18.49	29.30	37.17	30.77	30.67	31.08	26.95	25.26	24.49	27.17	21.79					
BF Mean Depth (ft)	1.67	1.53	1.53	1.40	1.51	1.39	1.15	1.27	1.14	1.24	1.38	1.52	1.47	1.24	1.45					
Width/Depth Ratio	11.7	12.7	12.1	13.5	12.3	21.0	32.3	24.3	26.8	25.1	19.6	16.7	16.6	21.9	15.1					
BF Cross-sectional Area (ft²)	32.8	29.9	28.3	26.2	27.9	40.9	42.7	39.0	35.1	38.5	37.1	38.3	36.1	33.8	31.5					
BF Max Depth (ft)	2.60	1.53	2.02	2.00	2.05	2.78	2.82	2.58	2.36	2.58	2.66	2.56	2.47	2.16	2.24					
Width of Floodprone Area (ft)	118.59	123.64	123.76	123.66	123.78	117.85	117.78	117.81	116.84	117.75	124.88	124.89	124.86	124.86	124.91					
Entrenchment Ratio	6.0	6.3	6.7	6.6	6.7	4.0	3.2	3.8	3.8	3.8	4.6	4.9	5.1	4.6	5.7					
Bank Height Ratio	1.0	1.0	1.0	1.1	1.2	1.2	1.0	1.1	1.1	1.0	1.0	1.0	1.0	1.1	1.1					
Wetted Perimeter (ft)	22.96	22.53	21.53	21.56	21.51	32.08	39.47	33.31	32.95	33.56	29.71	28.3	27.43	29.65	24.69					
Hydraulic Radius (ft)	1.429	1.327	1.314	1.215	1.297	1.275	1.082	1.171	1.065	1.147	1.249	1.353	1.316	1.140	1.276					
Substrate																				
d50 (mm)																				
d84 (mm)																				

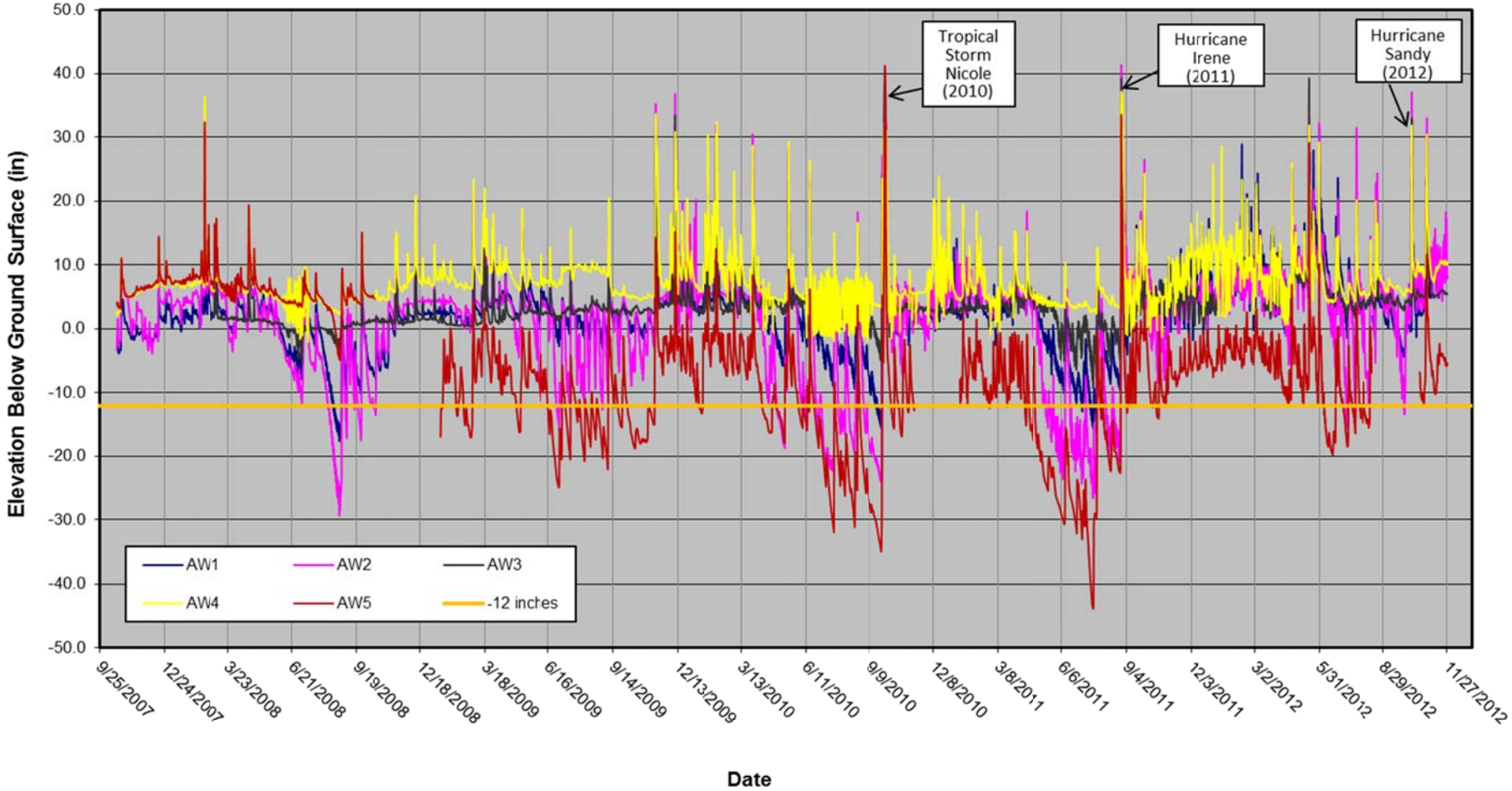
Buckland Elementary Rain - 2012



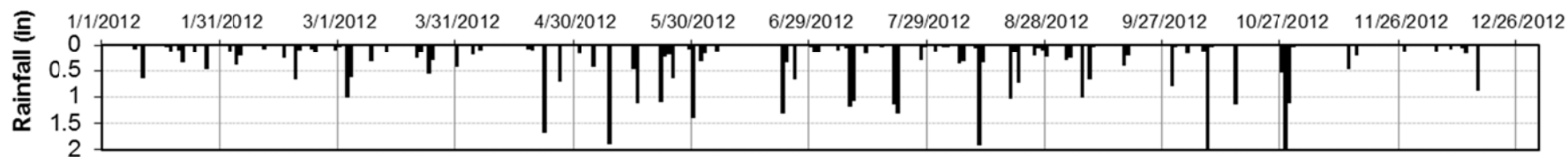
Duke Swamp Wetland Gauge Measurements - UT1a - Year 5/2012



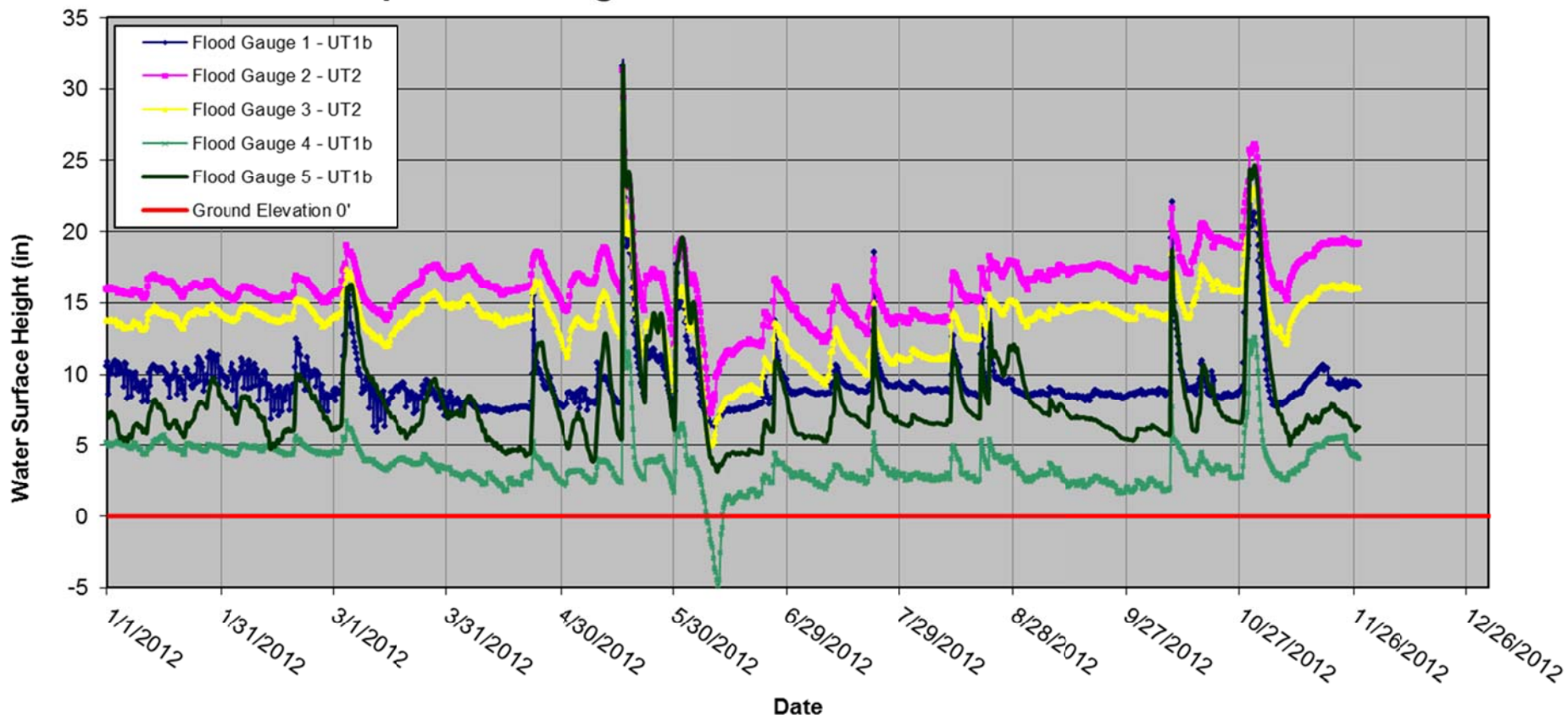
Duke Swamp Wetland Gauge Measurements - UT1a (Years 1 through Year 5)



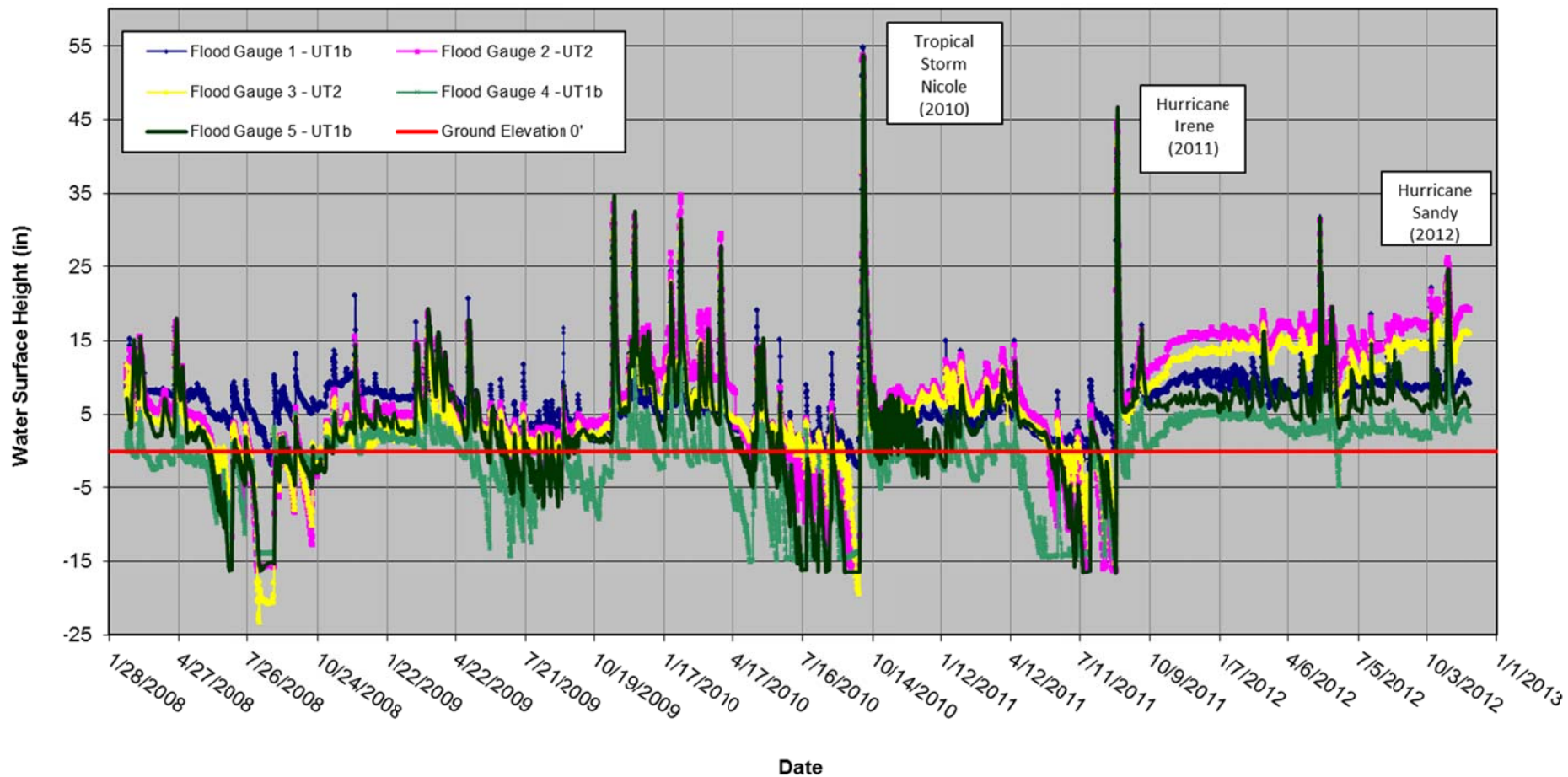
Buckland Elementary Rain - 2012



Duke Swamp Flood Gauge Measurements - UT1b and UT2 - Year 5/2012



Duke Swamp Flood Gauge Measurements - UT1b and UT2 (Years 1 through Year 5)



Stem Count for Each Species Arranged by Plot														
Duke Swamp Tributary Site: EEP Contract No. D06065-A														
Tree Species	Plots												Year 5 Totals	Average Stems/acre
	1	2	3	4	5	6	7	8	9	10	11	12		
<i>Betula nigra</i>	1		3				6	1					11	
<i>Celtis laevigata</i>			1										1	
<i>Fraxinus pennsylvanica</i>			2										2	
<i>Nyssa sylvatica</i>		3		2	10	6		1			4	2	28	
<i>Platanus occidentalis</i>	4		4		1		2						11	
<i>Quercus lyrata</i>		3		3	2	3		1	2	1			15	
<i>Quercus michauxii</i>			1						2				3	
<i>Quercus phellos</i>			1				4		4				9	
<i>Taxodium distichum</i>	13			3	5	3		7	1			2	34	
Stems/plot	18	6	12	8	18	12	12	10	9	1	4	4	114	
Stems/acre Year 5	728	243	486	324	728	486	486	405	364	40	162	162	384	
Stems/acre Year 4	728	364	526	364	162	526	486	364	364	40	162	121	351	
Stems/acre Year 3	728	364	526	364	121	607	445	445	364	0	202	81	354	
Stems/acre Year 2	647	320	526	647	364	607	567	526	364	0	202	121	408	
Stems/acre Year 1	688	121	607	405	81	202	526	486	364	0	364	40	320	
Stems/acre Initial	688	607	647	688	769	728	688	850	1012	769	607	607	722	

* Bold - Year 5 vegetation data final counts

Summary of Highest Bankfull Events UT1a

Duke Swamp Tributary Site: EEP Contract No. D06065-A			
Date of Data Collection	Date of Occurrence of Bankfull Event	Method of Data Collection	Bankfull Height (feet) *
Year 1 (3/13/2008)	3/7/2008	Crest Gauge	2.00
Year 2 (11/18/2009)	11/12/2009	Crest Gauge	2.12
Year 3 (10/6/2010)	10/1/2010 (Tropical Storm)	Crest Gauge	3.54
Year 4 (8/30/2011)	8/28/2011 (Hurricane Irene)	Crest Gauge	2.90
Year 5 (6/7/2012)	5/16/2012	Crest Gauge	2.28

* Bold - highest yearly bankfull event for reach

EEP Recommendation and Conclusion

The Duke Swamp Tributary Site has completed 5 years of successful monitoring. Each parameter for success has been achieved, with exception to the vegetation plots as discussed below.

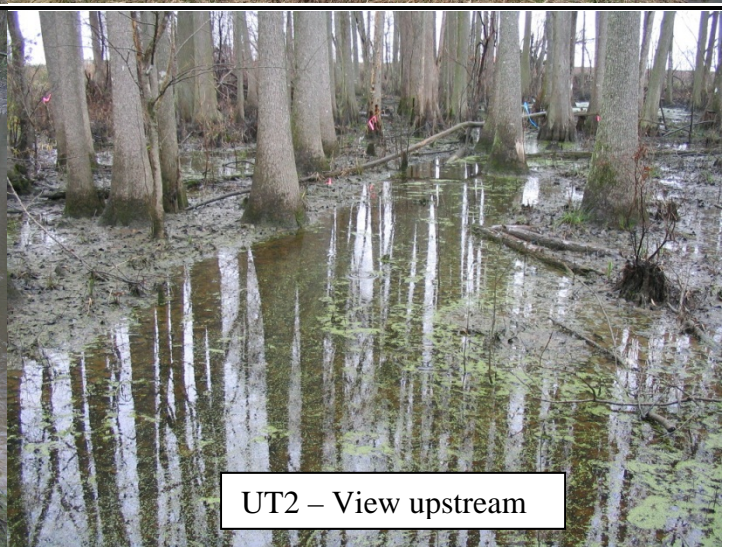
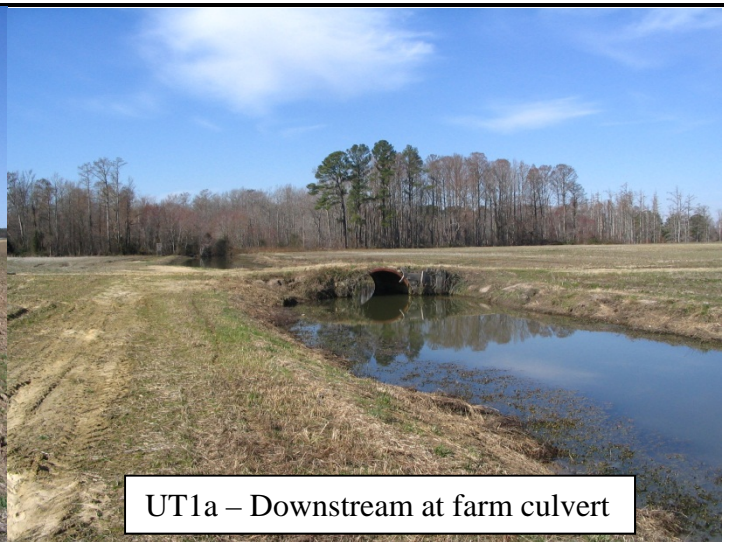
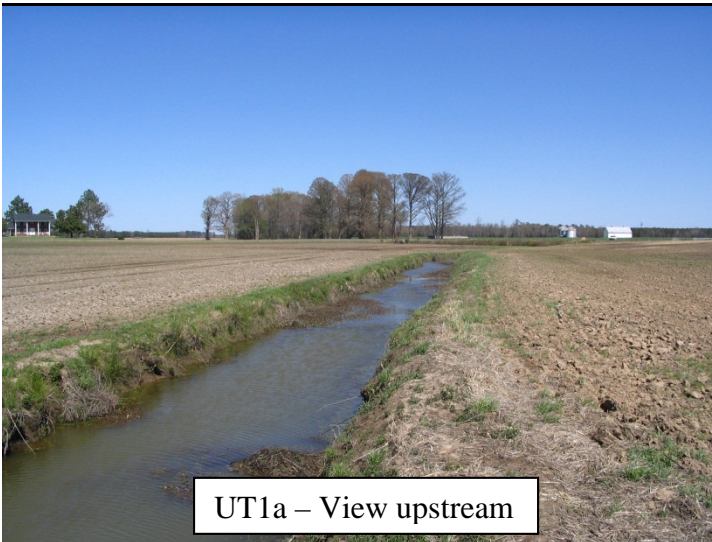
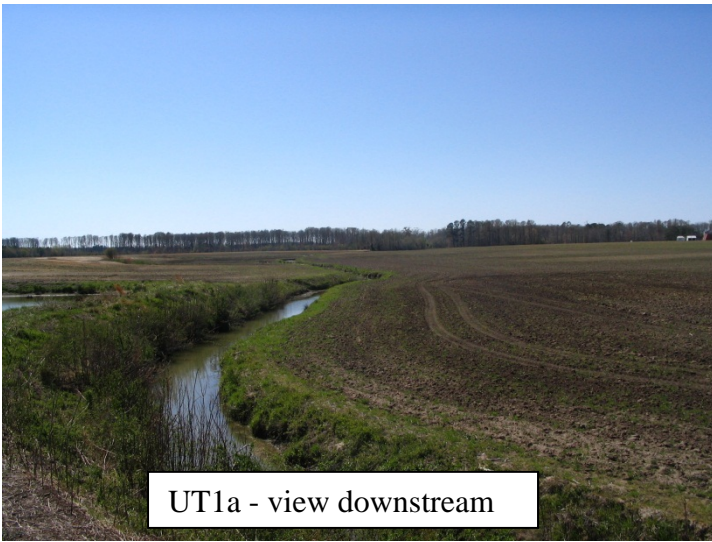
Wetland data recorded each year of the five-year monitoring period, demonstrated that all five installed monitoring wells recorded hydroperiods greater than 8 percent during each growing season. This success is accredited to the higher local water table as a result of the Site's restoration and periodic backwater conditions from Duke Swamp.

The vegetation success criteria require that the Site exhibit a surviving tree density of at least 260 five-year-old trees per acre at the end of the five-year monitoring period. In spite of the vegetative issues experienced on the Site throughout the monitoring period, the Year 5 vegetation data showed that the Site displays a planted stem density of 384 stems per acre, meeting overall success criteria. This density total includes the low stem counts observed in vegetation plots 10, 11 and 12. Further, it should be noted that the thick herbaceous vegetation in this area is providing increased filtration of flood waters as compared to those areas that are more dominated by woody stems. It is expected that given enough time, the lower portion of the Site will develop characteristics of a more established and higher functioning wetland comprised of small shrubs and trees.

EEP recommends that the Site be closed generating 5,382 Stream Mitigation Units (SMUs) and 15.8 Wetland Mitigation Units (WMUs).

Contingencies

Existing Conditions Photos



Year 5 Photos



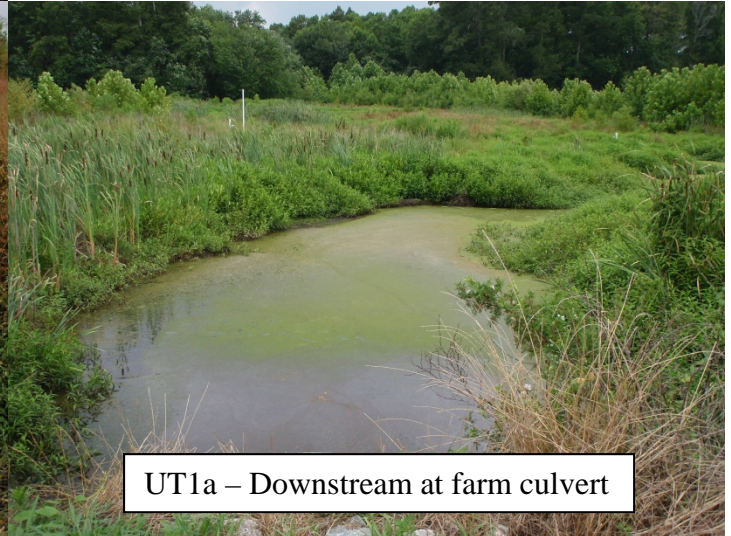
UT1a - view downstream



Wetland Enhancement Area #2



UT1a – View upstream



UT1a – Downstream at farm culvert



Wetland Enhancement Area #3



UT2 – View downstream

APPENDIX A - Watershed Planning Summary

Duke Swamp project is not within a Targeted Local Watershed.

Appendix B. Land Ownership and Protection

SITE PROTECTION INSTRUMENT

The land required for the construction, management, and stewardship of this mitigation project includes a portion of the following parcels.

Grantor	County	Site Protection Instrument	Deed Book & Page Number	Acreage protected
Emmitt Earl Parker, Jr. et al	Gates	Conservation Easement	256/903	25.44

http://www.nceep.net/GIS_DATA/PROPERTY/92544_DukeSwamp.pdf

LONG-TERM MANAGEMENT PLAN

Upon approval for close-out by the Interagency Review Team (IRT), the site will be transferred to the DENR Stewardship Program, which will be responsible for periodic inspection of the site to ensure that restrictions required in the conservation easement are upheld.

**U.S. ARMY CORPS OF ENGINEERS
WILMINGTON DISTRICT**

Action ID: 2007-02187-137

County: Gates

USGS Quad: Sunbury & Merchants Millpond

GENERAL PERMIT (REGIONAL AND NATIONWIDE) VERIFICATION

Property Owner / Authorized Agent: Baker Engineering NY, Inc.

Address: 8000 Regency Parkway, Suite 200

Cary, North Carolina 27518

Attn: Kevin Tweedy

Telephone No.: (919) 468-5488

Size and location of property (water body, road name/number, town, etc.): The project is located on the south side of NCSR 1320 (Kellogg Farm Road) just south of the intersection of NCSR's 1305 and 1320 adjacent to two unnamed tributaries to Duke Swamp in Gates County, North Carolina.

Description of projects area and activity: Restoration and enhancement of former waters impacting 3,740 linear feet of existing stream channel and 0.8 acres of open waters (pond). Note - See attached Additional Special Conditions.

Applicable Law: Section 404 (Clean Water Act, 33 USC 1344)
 Section 10 (Rivers and Harbors Act, 33 USC 403)

Authorization: Regional General Permit Number: _____
Nationwide Permit Number: NW # 27

Your work is authorized by the above referenced permit provided it is accomplished in strict accordance with the attached conditions and your submitted plans. Any violation of the attached conditions or deviation from your submitted plans may subject the permittee to a stop work order, a restoration order and/or appropriate legal action.

This verification will remain valid until the expiration date identified below unless the nationwide authorization is modified, suspended or revoked. If, prior to the expiration date identified below, the nationwide permit authorization is reissued and/or modified, this verification will remain valid until the expiration date identified below, provided it complies with all requirements of the modified nationwide permit. If the nationwide permit authorization expires or is suspended, revoked, or is modified, such that the activity would no longer comply with the terms and conditions of the nationwide permit, activities which have commenced (i.e., are under construction) or are under contract to commence in reliance upon the nationwide permit, will remain authorized provided the activity is completed within twelve months of the date of the nationwide permit's expiration, modification or revocation, unless discretionary authority has been exercised on a case-by-case basis to modify, suspend or revoke the authorization.

Activities subject to Section 404 (as indicated above) may also require an individual Section 401 Water Quality Certification. You should contact the NC Division of Water Quality (telephone (919) 733-1786) to determine Section 401 requirements.

For activities occurring within the twenty coastal counties subject to regulation under the Coastal Area Management Act (CAMA), prior to beginning work you must contact the N.C. Division of Coastal Management .

This Department of the Army verification does not relieve the permittee of the responsibility to obtain any other required Federal, State or local approvals/permits.

If there are any questions regarding this verification, any of the conditions of the Permit, or the Corps of Engineers regulatory program, please contact **Bill Biddlecome at (252) 975-1616 ext 26.**

Corps Regulatory Official William J. Biddlecome Date: 07/17/2007

Expiration Date of Verification: 07/17/2009

The Wilmington District is committed to providing the highest level of support to the public. To help us ensure we continue to do so, please complete the attached customer Satisfaction Survey or visit <http://www.saw.usace.army.mil/WETLANDS/index.html> to complete the survey online.

Copy Furnished:

Determination of Jurisdiction:

- Based on preliminary information, there appear to be waters of the US including wetlands within the above described project area. This preliminary determination is not an appealable action under the Regulatory Program Administrative Appeal Process (Reference 33 CFR Part 331).
- There are Navigable Waters of the United States within the above described project area subject to the permit requirements of Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act. Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
- There are waters of the US and/or wetlands within the above described project area subject to the permit requirements of Section 404 of the Clean Water Act (CWA)(33 USC § 1344). Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
- The jurisdictional areas within the above described project area have been identified under a previous action. Please reference jurisdictional determination issued _____. Action ID _____

Basis of Jurisdictional Determination: This site exhibits wetland criteria as described in the 1987 Corps Wetland Delineation Manual and is part of a broad continuum of wetlands connected to an unnamed tributary to Duke Swamp, a tributary to Lassiter Swamp Creek, a tributary to Bennetts Creek, which is a tributary to the Chowan River.

Corps Regulatory Official: William J. Biddlecome

Date 07/17/2007

SURVEY PLATS, FIELD SKETCH, WETLAND DELINEATION FORMS, PROJECT PLANS, ETC., MUST BE ATTACHED TO THE FILE COPY OF THIS FORM, IF REQUIRED OR AVAILABLE.

Copy Furnished:

Additional Special Conditions

Action I.D. # SAW - 2007-02187-137 – Duke Wetland and Stream Restoration

- a) This authorization in no way obligates the U.S. Army Corps of Engineers to recognize this work as a stream or riparian wetland restoration project.
- b) This authorization in no way obligates the U.S. Army Corps of Engineers to accept this project for use as compensatory mitigation proposed by the North Carolina Ecosystem Enhancement Program (NCEEP), or any other person, program, or entity.

Action ID Number: SAW-2007-02187-137

County: Gates

Permittee: Baker Engineering NY, Inc.

Date Permit Issued: 7/17/2007

Project Manager: Biddlecome

Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the following address:

US ARMY CORPS OF ENGINEERS
WILMINGTON DISTRICT
WASHINGTON REGULATORY FIELD OFFICE
POST OFFICE BOX 1000
WASHINGTON, NORTH CAROLINA 27889

Please note that your permitted activity is subject to a compliance inspection by a U. S. Army Corps of Engineers representative. If you fail to comply with this permit you are subject to permit suspension, modification, or revocation.

I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and condition of the said permit, and required mitigation was completed in accordance with the permit conditions.



Signature of Permittee

9-28-07

Date

¹Wetlands are identified and delineated using the methods and criteria established in the Corps Wetland Delineation Manual (87 Manual) (i.e., occurrence of hydrophytic vegetation, hydric soils and wetland hydrology).

²The term "adjacent" means bordering, contiguous, or neighboring. Wetlands separated from other waters of the U.S. by man-made dikes or barriers, natural river berms, beach dunes, and the like are also adjacent.

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Baker Engineering NY, Inc.	File Number: 2007-02187-137	Date: 7/17/2007
Attached is:		See Section below
<input type="checkbox"/>	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A
<input type="checkbox"/>	PROFFERED PERMIT (Standard Permit or Letter of permission)	B
<input type="checkbox"/>	PERMIT DENIAL	C
<input checked="" type="checkbox"/>	APPROVED JURISDICTIONAL DETERMINATION	D
<input type="checkbox"/>	PRELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at <http://www.usace.army.mil/inet/functions/cw/cccw/reg> or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:
Bill Biddlecome
US Army Corps of Engineers
Regulatory Division, Washington Field Office
P.O. Box 1000
Washington, NC 27889 (252) 975-1616 ext. 26

If you only have questions regarding the appeal process you may also contact:
Mr. Mike Bell, Administrative Appeal Review Officer
CESAD-ET-CO-R
U.S. Army Corps of Engineers, South Atlantic Division
60 Forsyth Street, Room 9M15
Atlanta, Georgia 30303-8801

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

Signature of appellant or agent.

Date:

Telephone number:

DIVISION ENGINEER:
Commander
U.S. Army Engineer Division, South Atlantic
60 Forsyth Street, Room 9M15
Atlanta, Georgia 30303-3490

NATIONWIDE PERMIT 27
DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS
FINAL NOTICE OF ISSUANCE AND MODIFICATION OF NATIONWIDE PERMITS
FEDERAL REGISTER
AUTHORIZED MARCH 19, 2007

Aquatic Habitat Restoration, Establishment, and Enhancement Activities. Activities in waters of the United States associated with the restoration, enhancement, and establishment of tidal and non-tidal wetlands and riparian areas and the restoration and enhancement of non-tidal streams and other non-tidal open waters, provided those activities result in net increases in aquatic resource functions and services.

To the extent that a Corps permit is required, activities authorized by this NWP include, but are not limited to: the removal of accumulated sediments; the installation, removal, and maintenance of small water control structures, dikes, and berms; the installation of current deflectors; the enhancement, restoration, or establishment of riffle and pool stream structure; the placement of in-stream habitat structures; modifications of the stream bed and/or banks to restore or establish stream meanders; the backfilling of artificial channels and drainage ditches; the removal of existing drainage structures; the construction of small nesting islands; the construction of open water areas; the construction of oyster habitat over unvegetated bottom in tidal waters; shellfish seeding; activities needed to reestablish vegetation, including plowing or discing for seed bed preparation and the planting of appropriate wetland species; mechanized land clearing to remove non-native invasive, exotic, or nuisance vegetation; and other related activities. Only native plant species should be planted at the site.

This NWP authorizes the relocation of non-tidal waters, including non-tidal wetlands and streams, on the project site provided there are net increases in aquatic resource functions and services.

Except for the relocation of non-tidal waters on the project site, this NWP does not authorize the conversion of a stream or natural wetlands to another aquatic habitat type (e.g., stream to wetland or vice versa) or uplands. This NWP does not authorize stream channelization. This NWP does not authorize the relocation of tidal waters or the conversion of tidal waters, including tidal wetlands, to other aquatic uses, such as the conversion of tidal wetlands into open water impoundments.

Reversion. For enhancement, restoration, and establishment activities conducted: (1) In accordance with the terms and conditions of a binding wetland enhancement, restoration, or establishment agreement between the landowner and the U.S. Fish and Wildlife Service (FWS), the Natural Resources Conservation Service (NRCS), the Farm Service Agency (FSA), the National Marine Fisheries Service (NMFS), the National Ocean Service (NOS), or their designated state cooperating agencies; (2) as voluntary wetland restoration, enhancement, and establishment actions documented by the NRCS or USDA Technical Service Provider pursuant to NRCS Field Office Technical Guide standards; or (3) on reclaimed surface coal mine lands, in accordance with a Surface Mining Control and Reclamation Act permit issued by the OSM or the applicable state agency, this NWP also authorizes any future discharge of dredged or fill material associated with the reversion of the area to its documented prior condition and use (i.e., prior to the restoration, enhancement, or establishment activities). The reversion must occur

within five years after expiration of a limited term wetland restoration or establishment agreement or permit, and is authorized in these circumstances even if the discharge occurs after this NWP expires. The five-year reversion limit does not apply to agreements without time limits reached between the landowner and the FWS, NRCS, FSA, NMFS, NOS, or an appropriate state cooperating agency. This NWP also authorizes discharges of dredged or fill material in waters of the United States for the reversion of wetlands that were restored, enhanced, or established on prior-converted cropland that has not been abandoned or on uplands, in accordance with a binding agreement between the landowner and NRCS, FSA, FWS, or their designated state cooperating agencies (even though the restoration, enhancement, or establishment activity did not require a section 404 permit). The prior condition will be documented in the original agreement or permit, and the determination of return to prior conditions will be made by the Federal agency or appropriate state agency executing the agreement or permit. Before conducting any reversion activity the permittee or the appropriate Federal or state agency must notify the district engineer and include the documentation of the prior condition. Once an area has reverted to its prior physical condition, it will be subject to whatever the Corps Regulatory requirements are applicable to that type of land at the time. The requirement that the activity result in a net increase in aquatic resource functions and services does not apply to reversion activities meeting the above conditions. Except for the activities described above, this NWP does not authorize any future discharge of dredged or fill material associated with the reversion of the area to its prior condition. In such cases a separate permit would be required for any reversion.

Reporting: For those activities that do not require pre-construction notification, the permittee must submit to the district engineer a copy of: (1) The binding wetland enhancement, restoration, or establishment agreement, or a project description, including project plans and location map; (2) the NRCS or USDA Technical Service Provider documentation for the voluntary wetland restoration, enhancement, or establishment action; or (3) the SMCRA permit issued by OSM or the applicable state agency. These documents must be submitted to the district engineer at least 30 days prior to commencing activities in waters of the United States authorized by this NWP.

Notification. The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity (see general condition 27), except for the following activities:

(1) Activities conducted on non-Federal public lands and private lands, in accordance with the terms and conditions of a binding wetland enhancement, restoration, or establishment agreement between the landowner and the U.S. FWS, NRCS, FSA, NMFS, NOS, or their designated state cooperating agencies;

(2) Voluntary wetland restoration, enhancement, and establishment actions documented by the NRCS or USDA Technical Service Provider pursuant to NRCS Field Office Technical Guide standards; or

(3) The reclamation of surface coal mine lands, in accordance with an SMCRA permit issued by the OSM or the applicable state agency.

However, the permittee must submit a copy of the appropriate documentation. (Sections 10 and 404)

Note: This NWP can be used to authorize compensatory mitigation projects, including mitigation banks and in-lieu fee programs. However, this NWP does not authorize the reversion of an area used for a compensatory mitigation project to its prior condition, since compensatory mitigation is generally intended to be permanent.

NATIONWIDE PERMIT CONDITIONS

The following General Conditions must be followed in order for any authorization by a NWP to be valid:

1. Navigation. (a) No activity may cause more than a minimal adverse effect on navigation.

(b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.

(c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. Aquatic Life Movements. No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. Culverts placed in streams must be installed to maintain low flow conditions.

3. Spawning Areas. Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

4. Migratory Bird Breeding Areas. Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

5. Shellfish Beds. No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 48.

6. Suitable Material. No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see Section 307 of the Clean Water Act).

7. Water Supply Intakes. No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

8. Adverse Effects From Impoundments. If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

9. Management of Water Flows. To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization and storm water management activities, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

10. Fills Within 100-Year Floodplains. The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

11. Equipment. Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

12. Soil Erosion and Sediment Controls. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow.

13. Removal of Temporary Fills. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

14. Proper Maintenance. Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety.

15. Wild and Scenic Rivers. No activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency in the area (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service).

16. Tribal Rights. No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

17. Endangered Species. (a) No activity is authorized under any NWP which is likely to jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will destroy or adversely modify the critical habitat of such species. No activity is authorized

under any NWP which “may affect” a listed species or critical habitat, unless Section 7 consultation addressing the effects of the proposed activity has been completed.

(b) Federal agencies should follow their own procedures for complying with the requirements of the ESA. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements.

(c) Non-federal permittees shall notify the district engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species or designated critical habitat, the pre-construction notification must include the name(s) of the endangered or threatened species that may be affected by the proposed work or that utilize the designated critical habitat that may be affected by the proposed work. The district engineer will determine whether the proposed activity “may affect” or will have “no effect” to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps’ determination within 45 days of receipt of a complete pre-construction notification. In cases where the non-Federal applicant has identified listed species or critical habitat that might be affected or is in the vicinity of the project, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification the proposed activities will have “no effect” on listed species or critical habitat, or until Section 7 consultation has been completed.

(d) As a result of formal or informal consultation with the FWS or NMFS the district engineer may add species-specific regional endangered species conditions to the NWPs.

(e) Authorization of an activity by a NWP does not authorize the “take” of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with “incidental take” provisions, etc.) from the U.S. FWS or the NMFS, both lethal and non-lethal “takes” of protected species are in violation of the ESA. Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the U.S. FWS and NMFS or their world wide Web pages at <http://www.fws.gov/> and <http://www.noaa.gov/fisheries.html> respectively.

18. Historic Properties. (a) In cases where the district engineer determines that the activity may affect properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

(b) Federal permittees should follow their own procedures for complying with the requirements of Section 106 of the National Historic Preservation Act. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if the authorized activity may have the potential to cause effects to any historic properties listed, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties may be affected by the proposed work or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of or potential for the presence of historic resources can be sought from the State

Historic Preservation Officer or Tribal Historic Preservation Officer, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey. Based on the information submitted and these efforts, the district engineer shall determine whether the proposed activity has the potential to cause an effect on the historic properties. Where the non-Federal applicant has identified historic properties which the activity may have the potential to cause effects and so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects or that consultation under Section 106 of the NHPA has been completed.

(d) The district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA Section 106 consultation is required. Section 106 consultation is not required when the Corps determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR 800.3(a)). If NHPA section 106 consultation is required and will occur, the district engineer will notify the non-Federal applicant that he or she cannot begin work until Section 106 consultation is completed.

(e) Prospective permittees should be aware that section 110k of the NHPA (16 U.S.C. 470h-2(k)) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of Section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, explaining the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

19. Designated Critical Resource Waters. Critical resource waters include, NOAA-designated marine sanctuaries, National Estuarine Research Reserves, state natural heritage sites, and outstanding national resource waters or other waters officially designated by a state as having particular environmental or ecological significance and identified by the district engineer after notice and opportunity for public comment. The district engineer may also designate additional critical resource waters after notice and opportunity for comment.

(a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, and 50 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

(b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, and 38, notification is required in accordance with general condition 27, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after it is determined that the impacts to the critical resource waters will be no more than minimal.

20. Mitigation. The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that adverse effects on the aquatic environment are minimal:

(a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).

(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating) will be required to the extent necessary to ensure that the adverse effects to the aquatic environment are minimal.

(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10 acre and require pre-construction notification, unless the district engineer determines in writing that some other form of mitigation would be more environmentally appropriate and provides a project-specific waiver of this requirement. For wetland losses of 1/10 acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in minimal adverse effects on the aquatic environment. Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, wetland restoration should be the first compensatory mitigation option considered.

(d) For losses of streams or other open waters that require pre-construction notification, the district engineer may require compensatory mitigation, such as stream restoration, to ensure that the activity results in minimal adverse effects on the aquatic environment.

(e) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWP. For example, if an NWP has an acreage limit of 1/2 acre, it cannot be used to authorize any project resulting in the loss of greater than 1/2 acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that a project already meeting the established acreage limits also satisfies the minimal impact requirement associated with the NWP.

(f) Compensatory mitigation plans for projects in or near streams or other open waters will normally include a requirement for the establishment, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, riparian areas may be the only compensatory mitigation required. Riparian areas should consist of native species. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

(g) Permittees may propose the use of mitigation banks, in-lieu fee arrangements or separate activity-specific compensatory mitigation. In all cases, the mitigation provisions will specify the party responsible for accomplishing and/or complying with the mitigation plan.

(h) Where certain functions and services of waters of the United States are permanently adversely affected, such as the conversion of a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse effects of the project to the minimal level.

21. Water Quality. Where States and authorized Tribes, or EPA where applicable, have not previously certified compliance of an NWP with CWA Section 401, individual 401 Water Quality Certification must be obtained or waived (see 33 CFR 330.4(c)). The district engineer or State or Tribe may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

22. Coastal Zone Management. In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). The district engineer or a State may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

23. Regional and Case-By-Case Conditions. The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

24. Use of Multiple Nationwide Permits. The use of more than one NWP for a single and complete project is prohibited, except when the acreage loss of waters of the United States authorized by the NWPs does not exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3-acre.

25. Transfer of Nationwide Permit Verifications. If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature:
“When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate

the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.”

(Transferee)

(Date)

26. Compliance Certification. Each permittee who received an NWP verification from the Corps must submit a signed certification regarding the completed work and any required mitigation. The certification form must be forwarded by the Corps with the NWP verification letter and will include:

- (a) A statement that the authorized work was done in accordance with the NWP authorization, including any general or specific conditions;
- (b) A statement that any required mitigation was completed in accordance with the permit conditions; and
- (c) The signature of the permittee certifying the completion of the work and mitigation.

27. Pre-Construction Notification. (a) Timing. Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, as a general rule, will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:

- (1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or
- (2) Forty-five calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 17 that listed species or critical habitat might be affected or in the vicinity of the project, or to notify the Corps pursuant to general condition 18 that the activity may have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that is “no effect” on listed species or “no potential to cause effects” on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or Section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)) is completed. Also, work cannot begin under NWPs 21, 49, or 50 until the permittee has received written approval from the Corps. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee cannot begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained.

Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) Contents of Pre-Construction Notification: The PCN must be in writing and include the following information:

(1) Name, address and telephone numbers of the prospective permittee;

(2) Location of the proposed project;

(3) A description of the proposed project; the project's purpose; direct and indirect adverse environmental effects the project would cause; any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity. The description should be sufficiently detailed to allow the district engineer to determine that the adverse effects of the project will be minimal and to determine the need for compensatory mitigation. Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the project and when provided result in a quicker decision.);

(4) The PCN must include a delineation of special aquatic sites and other waters of the United States on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters of the United States, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many waters of the United States. Furthermore, the 45 day period will not start until the delineation has been submitted to or completed by the Corps, where appropriate;

(5) If the proposed activity will result in the loss of greater than 1/10 acre of wetlands and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

(6) If any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, for non-Federal applicants the PCN must include the name(s) of those endangered or threatened species that might be affected by the proposed work or utilize the designated critical habitat that may be affected by the proposed work. Federal applicants must provide documentation demonstrating compliance with the Endangered Species Act; and

(7) For an activity that may affect a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, for non-Federal applicants the PCN must state which historic property may be affected by the proposed work or include a vicinity map indicating the location of the historic property. Federal applicants must provide documentation demonstrating compliance with Section 106 of the National Historic Preservation Act.

(c) Form of Pre-Construction Notification: The standard individual permit application form (Form ENG 4345) may be used, but the completed application form must clearly indicate that it is a PCN and must include all of the information required in paragraphs (b)(1) through (7) of this general condition. A letter containing the required information may also be used.

(d) Agency Coordination: (1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the project's adverse environmental effects to a minimal level.

(2) For all NWP 48 activities requiring pre-construction notification and for other NWP activities requiring pre-construction notification to the district engineer that result in the loss of greater than 1/2-acre of waters of the United States, the district engineer will immediately provide (e.g., via facsimile transmission, overnight mail, or other expeditious manner) a copy of the PCN to the appropriate Federal or state offices (U.S. FWS, state natural resource or water quality agency, EPA, State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Office (THPO), and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will then have 10 calendar days from the date the material is transmitted to telephone or fax the district engineer notice that they intend to provide substantive, site-specific comments. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the pre-construction notification. The district engineer will fully consider agency comments received within the specified time frame, but will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

(3) In cases of where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by Section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

(4) Applicants are encouraged to provide the Corps multiple copies of pre-construction notifications to expedite agency coordination.

(5) For NWP 48 activities that require reporting, the district engineer will provide a copy of each report within 10 calendar days of receipt to the appropriate regional office of the NMFS.

(e) District Engineer's Decision: In reviewing the PCN for the proposed activity, the district engineer will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. If the proposed activity requires a PCN and will result in a loss of greater than 1/10 acre of wetlands, the prospective permittee should submit a mitigation proposal with the PCN. Applicants may also propose compensatory mitigation for projects with smaller impacts. The district engineer will consider any proposed compensatory mitigation the applicant has included in the proposal in determining whether the net adverse environmental effects to the aquatic environment of the proposed work are minimal. The compensatory mitigation proposal may be either conceptual or detailed. If the district engineer determines that the activity complies with the terms and conditions of the NWP and that the adverse effects on the aquatic environment are minimal, after considering mitigation, the district engineer will notify the permittee and include any conditions the district engineer deems necessary. The district engineer must approve any compensatory mitigation proposal before the permittee commences work. If the prospective permittee elects to submit a compensatory mitigation plan with the PCN, the district engineer will expeditiously review the proposed compensatory mitigation plan. The district engineer must review the plan within 45 calendar days of receiving a complete PCN and determine whether the proposed mitigation would ensure no more than minimal adverse effects on the aquatic environment. If the net adverse effects of the project on the aquatic environment

(after consideration of the compensatory mitigation proposal) are determined by the district engineer to be minimal, the district engineer will provide a timely written response to the applicant. The response will state that the project can proceed under the terms and conditions of the NWP.

If the district engineer determines that the adverse effects of the proposed work are more than minimal, then the district engineer will notify the applicant either: (1) That the project does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an individual permit; (2) that the project is authorized under the NWP subject to the applicant's submission of a mitigation plan that would reduce the adverse effects on the aquatic environment to the minimal level; or (3) that the project is authorized under the NWP with specific modifications or conditions. Where the district engineer determines that mitigation is required to ensure no more than minimal adverse effects occur to the aquatic environment, the activity will be authorized within the 45-day PCN period. The authorization will include the necessary conceptual or specific mitigation or a requirement that the applicant submit a mitigation plan that would reduce the adverse effects on the aquatic environment to the minimal level. When mitigation is required, no work in waters of the United States may occur until the district engineer has approved a specific mitigation plan.

28. Single and Complete Project. The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

FURTHER INFORMATION

1. District Engineers have authority to determine if an activity complies with the terms and conditions of an NWP.

2. NWPs do not obviate the need to obtain other federal, state, or local permits, approvals, or authorizations required by law.

3. NWPs do not grant any property rights or exclusive privileges.

4. NWPs do not authorize any injury to the property or rights of others.

5. NWPs do not authorize interference with any existing or proposed Federal project.

DEFINITIONS

Best management practices (BMPs): Policies, practices, procedures, or structures implemented to mitigate the adverse environmental effects on surface water quality resulting from development. BMPs are categorized as structural or non-structural.

Compensatory mitigation: The restoration, establishment (creation), enhancement, or preservation of aquatic resources for the purpose of compensating for unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

Currently serviceable: Useable as is or with some maintenance, but not so degraded as to essentially require reconstruction.

Discharge: The term "discharge" means any discharge of dredged or fill material.

Enhancement: The manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a

decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

Ephemeral stream: An ephemeral stream has flowing water only during, and for a short duration after, precipitation events in a typical year. Ephemeral stream beds are located above the water table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow.

Establishment (creation): The manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results in a gain in aquatic resource area.

Historic Property: Any prehistoric or historic district, site (including archaeological site), building, structure, or other object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria (36 CFR part 60).

Independent utility: A test to determine what constitutes a single and complete project in the Corps regulatory program. A project is considered to have independent utility if it would be constructed absent the construction of other projects in the project area. Portions of a multi-phase project that depend upon other phases of the project do not have independent utility. Phases of a project that would be constructed even if the other phases were not built can be considered as separate single and complete projects with independent utility.

Intermittent stream: An intermittent stream has flowing water during certain times of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water. Runoff from rainfall is a supplemental source of water for stream flow.

Loss of waters of the United States: Waters of the United States that are permanently adversely affected by filling, flooding, excavation, or drainage because of the regulated activity. Permanent adverse effects include permanent discharges of dredged or fill material that change an aquatic area to dry land, increase the bottom elevation of a waterbody, or change the use of a waterbody. The acreage of loss of waters of the United States is a threshold measurement of the impact to jurisdictional waters for determining whether a project may qualify for an NWP; it is not a net threshold that is calculated after considering compensatory mitigation that may be used to offset losses of aquatic functions and services. The loss of stream bed includes the linear feet of stream bed that is filled or excavated. Waters of the United States temporarily filled, flooded, excavated, or drained, but restored to pre-construction contours and elevations after construction, are not included in the measurement of loss of waters of the United States. Impacts resulting from activities eligible for exemptions under Section 404(f) of the Clean Water Act are not considered when calculating the loss of waters of the United States.

Non-tidal wetland: A non-tidal wetland is a wetland that is not subject to the ebb and flow of tidal waters. The definition of a wetland can be found at 33 CFR 328.3(b). Non-tidal wetlands contiguous to tidal waters are located landward of the high tide line (i.e., spring high tide line).

Open water: For purposes of the NWPs, an open water is any area that in a year with normal patterns of precipitation has water flowing or standing above ground to the extent that an ordinary high water mark can be determined. Aquatic vegetation within the area of standing or

flowing water is either non-emergent, sparse, or absent. Vegetated shallows are considered to be open waters. Examples of “open waters” include rivers, streams, lakes, and ponds.

Ordinary High Water Mark: An ordinary high water mark is a line on the shore established by the fluctuations of water and indicated by physical characteristics, or by other appropriate means that consider the characteristics of the surrounding areas (see 33 CFR 328.3(e)).

Perennial stream: A perennial stream has flowing water year-round during a typical year. The water table is located above the stream bed for most of the year. Groundwater is the primary source of water for stream flow. Runoff from rainfall is a supplemental source of water for stream flow.

Practicable: Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

Pre-construction notification: A request submitted by the project proponent to the Corps for confirmation that a particular activity is authorized by nationwide permit. The request may be a permit application, letter, or similar document that includes information about the proposed work and its anticipated environmental effects. Pre-construction notification may be required by the terms and conditions of a nationwide permit, or by regional conditions. A pre-construction notification may be voluntarily submitted in cases where pre-construction notification is not required and the project proponent wants confirmation that the activity is authorized by nationwide permit.

Preservation: The removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

Re-establishment: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area.

Rehabilitation: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.

Restoration: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-establishment and rehabilitation.

Riffle and pool complex: Riffle and pool complexes are special aquatic sites under the 404(b)(1) Guidelines. Riffle and pool complexes sometimes characterize steep gradient sections of streams. Such stream sections are recognizable by their hydraulic characteristics. The rapid movement of water over a coarse substrate in riffles results in a rough flow, a turbulent surface, and high dissolved oxygen levels in the water. Pools are deeper areas associated with riffles. A slower stream velocity, a streaming flow, a smooth surface, and a finer substrate characterize pools.

Riparian areas: Riparian areas are lands adjacent to streams, lakes, and estuarine-marine shorelines. Riparian areas are transitional between terrestrial and aquatic ecosystems, through

which surface and subsurface hydrology connects waterbodies with their adjacent uplands. Riparian areas provide a variety of ecological functions and services and help improve or maintain local water quality. (See general condition 20.)

Shellfish seeding: The placement of shellfish seed and/or suitable substrate to increase shellfish production. Shellfish seed consists of immature individual shellfish or individual shellfish attached to shells or shell fragments (i.e., spat on shell). Suitable substrate may consist of shellfish shells, shell fragments, or other appropriate materials placed into waters for shellfish habitat.

Single and complete project: The term “single and complete project” is defined at 33 CFR 330.2(i) as the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers. A single and complete project must have independent utility (see definition). For linear projects, a “single and complete project” is all crossings of a single water of the United States (i.e., a single waterbody) at a specific location. For linear projects crossing a single waterbody several times at separate and distant locations, each crossing is considered a single and complete project. However, individual channels in a braided stream or river, or individual arms of a large, irregularly shaped wetland or lake, etc., are not separate waterbodies, and crossings of such features cannot be considered separately.

Stormwater management: Stormwater management is the mechanism for controlling stormwater runoff for the purposes of reducing downstream erosion, water quality degradation, and flooding and mitigating the adverse effects of changes in land use on the aquatic environment.

Stormwater management facilities: Stormwater management facilities are those facilities, including but not limited to, stormwater retention and detention ponds and best management practices, which retain water for a period of time to control runoff and/or improve the quality (i.e., by reducing the concentration of nutrients, sediments, hazardous substances and other pollutants) of stormwater runoff.

Stream bed: The substrate of the stream channel between the ordinary high water marks. The substrate may be bedrock or inorganic particles that range in size from clay to boulders. Wetlands contiguous to the stream bed, but outside of the ordinary high water marks, are not considered part of the stream bed.

Stream channelization: The manipulation of a stream’s course, condition, capacity, or location that causes more than minimal interruption of normal stream processes. A channelized stream remains a water of the United States.

Structure: An object that is arranged in a definite pattern of organization. Examples of structures include, without limitation, any pier, boat dock, boat ramp, wharf, dolphin, weir, boom, breakwater, bulkhead, revetment, riprap, jetty, artificial island, artificial reef, permanent mooring structure, power transmission line, permanently moored floating vessel, piling, aid to navigation, or any other manmade obstacle or obstruction.

Tidal wetland: A tidal wetland is a wetland (i.e., water of the United States) that is inundated by tidal waters. The definitions of a wetland and tidal waters can be found at 33 CFR 328.3(b) and 33 CFR 328.3(f), respectively. Tidal waters rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun. Tidal waters end where the rise and fall of the water surface can no longer be practically measured in a predictable rhythm due to masking by other waters, wind, or other effects. Tidal wetlands are located channelward of the high tide line, which is defined at 33 CFR 328.3(d).

Vegetated shallows: Vegetated shallows are special aquatic sites under the 404(b)(1) Guidelines. They are areas that are permanently inundated and under normal circumstances have rooted aquatic vegetation, such as seagrasses in marine and estuarine systems and a variety of vascular rooted plants in freshwater systems.

Waterbody: For purposes of the NWPs, a waterbody is a jurisdictional water of the United States that, during a year with normal patterns of precipitation, has water flowing or standing above ground to the extent that an ordinary high water mark (OHWM) or other indicators of jurisdiction can be determined, as well as any wetland area (see 33 CFR 328.3(b)). If a jurisdictional wetland is adjacent--meaning bordering, contiguous, or neighboring--to a jurisdictional waterbody displaying an OHWM or other indicators of jurisdiction, that waterbody and its adjacent wetlands are considered together as a single aquatic unit (see 33 CFR 328.4(c)(2)). Examples of "waterbodies" include streams, rivers, lakes, ponds, and wetlands.

REGIONAL CONDITIONS FOR NATIONWIDE PERMITS IN THE WILMINGTON DISTRICT

1.0 Excluded Waters

The Corps has identified waters that will be excluded from the use of all NWP's during certain timeframes. These waters are:

1.1. Anadromous Fish Spawning Areas

Waters of the United States identified by either the North Carolina Division of Marine Fisheries (NCDMF) or the North Carolina Wildlife Resources Commission (NCWRC) as anadromous fish spawning areas are excluded during the period between February 15 and June 30, without prior written approval from NCDMF or NCWRC and the Corps.

1.2. Trout Waters Moratorium

Waters of the United States in the twenty-five designated trout counties of North Carolina are excluded during the period between October 15 and April 15 without prior written approval from the NCWRC. (see Section I. b. 7. for a list of the twenty-five trout counties).

1.3. Sturgeon Spawning Areas

Waters of the United States designated as sturgeon spawning areas are excluded during the period between February 1 and June 30, without prior written approval from the National Marine Fisheries Service (NMFS).

2.0 Waters Requiring Additional Notification

The Corps has identified waters that will be subject to additional notification requirements for activities authorized by all NWP's. These waters are:

2.1. Western NC Counties that Drain to Designated Critical Habitat

Waters of the U.S. that requires a Pre-Construction Notification pursuant to General Condition 27 (PCN) and located in the sixteen counties listed below, applicants must provide a copy of the PCN to the US Fish and Wildlife Service, 160 Zillicoa Street, Asheville, North Carolina 28805. This PCN must be sent concurrently to the US Fish and Wildlife Service and the Corps Asheville Regulatory Field Office. Please see General Condition 17 for specific notification requirements related to Federally Endangered Species and the following website for information on the location of designated critical habitat.

Counties with tributaries that drain to designated critical habitat that require notification to the Asheville US Fish and Wildlife Service: Avery, Cherokee, Forsyth, Graham, Haywood,

Henderson, Jackson, Macon Mecklenburg, Mitchell, Stokes, Surry, Swain, Transylvania, Union and Yancey.

Website and office addresses for Endangered Species Act Information:

The Wilmington District has developed the following website for applicants which provide guidelines on how to review linked websites and maps in order to fulfill NWP general condition 17 requirements.

<http://www.saw.usace.army.mil/wetlands/ESA>

Applicants who do not have internet access may contact the appropriate US Fish and Wildlife Service offices or the US Army Corps of Engineers office listed below.

US Fish and Wildlife Service
Asheville Field Office
160 Zillicoa Street
Asheville, NC 28801
Telephone: (828) 258-3939

Asheville US Fish and Wildlife Service Office counties: All counties west of and including Anson, Stanly, Davidson, Forsyth and Stokes Counties

US Fish and Wildlife Service
Raleigh Field Office
Post Office Box 33726
Raleigh, NC 27636-3726
Telephone: (919) 856-4520

Raleigh US Fish and Wildlife Service Office counties: all counties east of and including Richmond, Montgomery, Randolph, Guilford, and Rockingham Counties.

2.2. Special Designation Waters

Prior to the use of any NWP in any of the following North Carolina identified waters and contiguous wetlands, applicants must comply with Nationwide Permit General Condition 27 (PCN). The North Carolina waters and contiguous wetlands that require additional notification requirements are:

“Outstanding Resource Waters” (ORW) and “High Quality Waters” (HQW) (as designated by the North Carolina Environmental Management Commission), or
“Inland Primary Nursery Areas” (IPNA) (as designated by the North Carolina Wildlife Resources Commission), or “Contiguous Wetlands” (as defined by the North Carolina Environmental Management Commission), or “Primary Nursery Areas” (PNA) (as designated by the North Carolina Marine Fisheries Commission).

2.3. Coastal Area Management Act (CAMA) Areas of Environmental Concern

Non-Federal applicants for any NWP in a designated “Area of Environmental Concern” (AEC) in the twenty (20) counties of Eastern North Carolina covered by the North Carolina Coastal Area Management Act (CAMA), must also obtain the required CAMA permit. Construction activities for non-Federal projects may not commence until a copy of the approved CAMA permit is furnished to the appropriate Wilmington District Regulatory Field Office (Wilmington Field Office – P.O. Box 1890, Wilmington, NC 28402 or Washington Field Office – P.O. Box 1000, Washington, NC 27889).

2.4. Barrier Islands

Prior to the use of any NWP on a barrier island of North Carolina, applicants must comply with Nationwide Permit General Condition 27 (PCN).

2.5. Mountain or Piedmont Bogs

Prior to the use of any NWP in a “Mountain or Piedmont Bog” of North Carolina, applicants shall comply with Nationwide Permit General Condition 27 (PCN).

Note: The following wetland community types identified in the N.C. Natural Heritage Program document, “Classification of Natural communities of North Carolina (Michael P. Schafale and Alan S. Weakley, 1990), are subject to this regional condition.

Mountain Bogs	Piedmont Bogs
Swamp Forest-Bog Complex	Upland depression Swamp Forest
Swamp Forest-Bog Complex (Spruce Subtype)	
Southern Appalachian Bog (Northern Subtype)	
Southern Appalachian Bog (Southern Subtype)	
Southern Appalachian Fen	

2.6. Animal Waste Facilities

Prior to use of any NWP for construction of animal waste facilities in waters of the US, including wetlands, applicants shall comply with Nationwide Permit General Condition 27 (PCN).

2.7. Trout Waters

Prior to any discharge of dredge or fill material into streams or waterbodies within the twenty-five (25) designated trout counties of North Carolina, the applicant shall comply with

Nationwide Permit General Condition 27 (PCN). The applicant shall also provide a copy of the notification to the appropriate NCWRC office to facilitate the determination of any potential impacts to designated Trout Waters. Notification to the Corps of Engineers will include a statement with the name of the NCWRC biologist contacted, the date of the notification, the location of work, a delineation of wetlands, a discussion of alternatives to working in the mountain trout waters, why alternatives were not selected, and a plan to provide compensatory mitigation for all unavoidable adverse impacts to mountain trout waters.

NCWRC and NC Trout Counties

Mr. Ron Linville			
Western Piedmont Region Coordinator	Alleghany	Caldwell	Watauga
3855 Idlewild Road	Ashe	Mitchell	Wilkes
Kernersville, NC 27284-9180	Avery	Stokes	
Telephone: (336) 769-9453	Burke	Surry	

Mr. Dave McHenry			
Mountain Region Coordinator	Buncombe	Henderson	Polk
20830 Great Smoky Mtn. Expressway	Cherokee	Jackson	Rutherford
Waynesville, NC 28786	Clay	Macon	Swain
Telephone: (828) 452-2546	Graham	Madison	Transylvania
Fax: (828) 452-7772	Haywood	McDowell	Yancey

3.0 List of Corps Regional Conditions for All Nationwide Permits

The following conditions apply to all Nationwide Permits in the Wilmington District:

3.1. Limitation of Loss of Perennial Stream Bed

NWPs may not be used for activities that may result in the loss or degradation of greater than 300 total linear feet of perennial streams. The NWPs may not be used for activities that may result in the loss or degradation of greater than 300 total linear feet of ephemeral and intermittent streams that exhibit important aquatic function(s)* Loss of stream includes the linear feet of stream bed that is filled, excavated, or flooded by the proposed activity. The District Commander can waive the 300 linear foot limit for ephemeral and intermittent streams on a case-by-case basis if he determines that the proposed activity will result in minimal individual and cumulative adverse impacts to the aquatic environment. Waivers for the loss of ephemeral and intermittent streams must be in writing. This waiver only applies to the 300 linear feet threshold for NWPs. Mitigation may still be required for impacts to ephemeral and intermittent streams, on a case-by-case basis, depending on the impacts to the aquatic environment of the proposed project. [*Note: The Corps uses the Stream Quality Assessment Worksheet, located with Permit Information on the Regulatory Program Web Site, to aid in the determination of aquatic function within the intermittent stream channel.]

3.2. Mitigation for Loss of Stream Bed Exceeding 150 Feet.

For any NWP that results in a loss of more than 150 linear feet of perennial and/or ephemeral/intermittent stream, the applicant shall provide a mitigation proposal to compensate for the loss of aquatic function associated with the proposed activity. For stream losses less than 150 linear feet, that require a PCN, the District Commander may determine, on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in minimal adverse effect on the aquatic environment.

3.3. Pre-construction Notification for Loss of Streambed Exceeding 150 Feet.

Prior to use of any NWP for any activity which impacts more than 150 total linear feet of perennial stream or ephemeral/ intermittent stream, the applicant must comply with Nationwide Permit General Condition 27 (PCN). This applies to NWPs that do not have specific notification requirements. If a NWP has specific notification requirements, the requirements of the NWP should be followed.

3.4. Restriction on Use of Live Concrete

For all NWPs which allow the use of concrete as a building material, measures will be taken to prevent live or fresh concrete, including bags of uncured concrete, from coming into contact with waters of the state until the concrete has hardened.

3.5. Requirements for Using Riprap for Bank Stabilization

For all NWPs that allow for the use of riprap material for bank stabilization, the following measures shall be applied:

3.5.1. Filter cloth must be placed underneath the riprap as an additional requirement of its use in North Carolina waters.

3.5.2. The placement of riprap shall be limited to the areas depicted on submitted work plan drawings.

3.5.3. The riprap material shall be clean and free from loose dirt or any pollutant except in trace quantities that would not have an adverse environmental effect.

3.5.4. It shall be of a size sufficient to prevent its movement from the authorized alignment by natural forces under normal conditions.

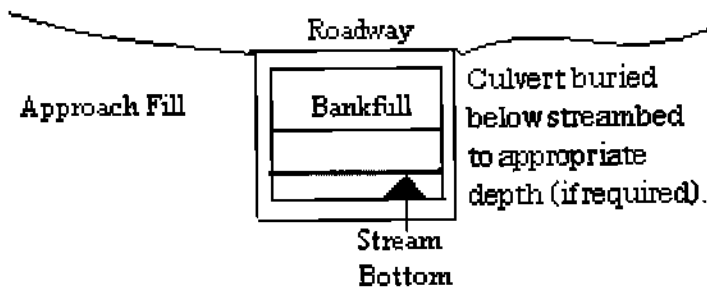
3.5.5. The riprap material shall consist of clean rock or masonry material such as, but not limited to, granite, marl, or broken concrete.

3.5.6. A waiver from the specifications in this Regional Condition may be requested in writing. The waiver will only be issued if it can be demonstrated that the impacts of complying with this Regional condition would result in greater adverse impacts to the aquatic environment.

3.6. Safe Passage Requirements for Culvert Placement

For all NWP's that involve the construction/installation of culverts, measures will be included in the construction/installation that will promote the safe passage of fish and other aquatic organisms. The dimension, pattern, and profile of the stream above and below a pipe or culvert should not be modified by widening the stream channel or by reducing the depth of the stream in connection with the construction activity. The width, height, and gradient of a proposed opening should be such as to pass the average historical low flow and spring flow without adversely altering flow velocity. Spring flow should be determined from gage data, if available. In the absence of such data, bankfull flow can be used as a comparable level.

In the twenty (20) counties of North Carolina designated as coastal counties by the Coastal Area Management Act (CAMA): All pipe and culvert bottoms shall be buried at least one foot below normal bed elevation when they are placed within the Public Trust Area of Environmental Concern (AEC) and/or the Estuarine Waters AEC as designated by CAMA, and/or all streams appearing as blue lines on United States Geological Survey (USGS) quad sheets.



In all other counties: Culverts greater than 48 inches in diameter will be buried at least one foot below the bed of the stream. Culverts 48 inches in diameter or less shall be buried or placed on the stream bed as practicable and appropriate to maintain aquatic passage, and every effort shall be made to maintain the existing channel slope. The bottom of the culvert must be placed at a depth below the natural stream bottom to provide for passage during drought or low flow conditions.

Destabilizing the channel and head cutting upstream should be considered in the placement of the culvert.

A waiver from the depth specifications in this condition may be requested in writing. The waiver will be issued if it can be demonstrated that the proposal would result in the least impacts to the aquatic environment.

All counties: Culverts placed in wetlands do not have to be buried.

3.7. Notification to NCDENR Shellfish Sanitation Section

Applicants shall notify the NCDENR Shellfish Sanitation Section prior to dredging in or removing sediment from an area closed to shell fishing where the effluent may be released to an area open for shell fishing or swimming in order to avoid contamination from the disposal area and cause a temporary shellfish closure to be made. Such notification shall also be provided to the appropriate Corps of Engineers Regulatory Field Office. Any disposal of sand to the ocean beach should occur between November 1 and April 30 when recreational usage is low. Only clean sand should be used and no dredged sand from closed shell fishing areas may be used. If beach disposal were to occur at times other than stated above or if sand from a closed shell fishing area is to be used, a swimming advisory shall be posted, and a press release shall be issued.

3.8. Preservation of Submerged Aquatic Vegetation

Adverse impacts to Submerged Aquatic Vegetation (SAV) are not authorized by any NWP within any of the twenty coastal counties defined by North Carolina's Coastal Area Management Act of 1974 (CAMA).

4.0 Additional Regional Conditions Applicable to Specific Nationwide Permits

The following regional conditions are required for NWP #27 – Aquatic Habitat Restoration, Establishment, and Enhancement Activities.

4.1 If you are under contract to the North Carolina Ecosystem Enhancement Program (NCEEP) and are supplying a Pre-construction Notification (PCN) for impacts associated with a mitigation project that will be used to supply mitigation credits to EEP, the PCN must include a cover letter from the NCEEP stating that they have reviewed and approved your restoration plan.

NC DIVISION OF WATER QUALITY - GENERAL CERTIFICATION CONDITIONS

For the most recent General Certification conditions, call the NC Division of Water Quality, Wetlands/401 Certification Unit at (919) 733-1786 or access the following website:
<http://h2o.enr.state.nc.us/ncwetlands/certs.html>

NC DIVISION OF COASTAL MANAGEMENT - STATE CONSISTENCY

In a letter dated May 7, 2007, the North Carolina Division of Coastal Management found this NWP consistent with the North Carolina Coastal Zone Management Program. Updates on CAMA Consistency for NC can be found on the NC DCM web site at:
<http://dcm2.enr.state.nc.us/Permits/consist.htm>

EASTERN BAND OF THE CHEROKEE INDIANS TRIBAL WATER QUALITY CERTIFICATIONS

In a letter dated May 8, 2007, US EPA, on behalf of the Eastern Band of Cherokee Indians, provided Tribal General Conditions for Nationwide Permits on Cherokee Indian Reservation. These Tribal General Conditions are located on the Corps website at:
<http://www.saw.usace.army.mil/WETLANDS/NWP2007/EBCI-certs.html>

Citations:

2007 Nationwide Permits Public Notice for Final Issue Date: March 15, 2007

Correction Notice for Nationwide Permits, Federal Register / Vol. 72, No. 88 / Tuesday, May 8, 2007 / Notices p.26082

2007 SAW Regional Conditions – Authorized June 1, 2007

This and other information can be found on the Corps web site at:
<http://www.saw.usace.army.mil/WETLANDS/NWP2007/nationwide-permits.html>



Michael F. Easley, Governor

William G. Ross Jr., Secretary
North Carolina Department of Environment and Natural Resources

Coleen H. Sullins, Director
Division of Water Quality

July 9, 2007

DWQ Project # 07-0810
Gates County

Mr. Kevin Tweedy
Baker Engineering NY, Inc.
8000 Regency Park, Suite 200
Cary, NC 27518

Subject Property: **Duke Swamp Wetland and Stream Restoration**
Duke Swamp [030101, 25-17-1, C, NSW]

Approval of 401 Water Quality Certification with Additional Conditions - REVISED

Dear Mr. Tweedy:

You have our approval, in accordance with the attached conditions and those listed below, to place fill within or otherwise impact 4,620 linear feet of perennial stream, and 0.8 acres of open water (pond) as described in your application dated May 1, 2007, and received by the Division of Water Quality (DWQ) on May 10, 2007, to construct the proposed stream restoration, wetland restoration, wetland preservation and buffer restoration at the site. After reviewing your application, we have decided that the impacts are covered by General Water Quality Certification Number(s) 3626 (GC3626). The Certification(s) allows you to use Nationwide Permit(s) NW27 when issued by the US Army Corps of Engineers (USACE). **This Certification replaces the Certification issued to you on July 3, 2007.** In addition, you should obtain or otherwise comply with any other required federal, state or local permits before you go ahead with your project including (but not limited to) Erosion and Sediment Control, and Non-discharge regulations. **Also, this approval to proceed with your proposed impacts or to conduct impacts to waters as depicted in your application shall expire upon expiration of the 404 or CAMA Permit.**

This approval is for the purpose and design that you described in your application. If you change your project, you must notify us and you may be required to send us a new application. If the property is sold, the new owner must be given a copy of this Certification and approval letter and is thereby responsible for complying with all conditions. If total fills for this project (now or in the future) exceed one acre of wetland or 150 linear feet of stream, compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h). **This approval requires you to follow the conditions listed in the attached certification and any additional conditions listed below.**

The Additional Conditions of the Certification are:

I. Impacts Approved

The following impacts are hereby approved as long as all of the other specific and general conditions of this Certification (or Isolated Wetland Permit) are met. No other impacts are approved including incidental impacts:

Type of Impact	Amount Approved (Units)	Plan Location or Reference
Stream - perennial	4,620 (linear feet)	PCN page 8 of 12
Open Water - pond	0.8 (acres)	PCN page 8 of 12



2. No Waste, Spoil, Solids, or Fill of Any Kind

No waste, spoil, solids, or fill of any kind shall occur in wetlands, waters, or riparian areas beyond the footprint of the impacts depicted in the Pre-Construction Notification. All construction activities, including the design, installation, operation, and maintenance of sediment and erosion control Best Management Practices, shall be performed so that no violations of state water quality standards, statutes, or rules occur.

3. Erosion and sediment control practices must be in full compliance with all specifications governing the proper design, installation and operation and maintenance of such Best Management Practices in order to protect surface waters standards:

- a. The erosion and sediment control measures for the project must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Sediment and Erosion Control Planning and Design Manual*.
- b. The design, installation, operation, and maintenance of the sediment and erosion control measures must be such that they equal, or exceed, the requirements specified in the most recent version of the *North Carolina Sediment and Erosion Control Manual*. The devices shall be maintained on all construction sites, borrow sites, and waste pile (spoil) projects, including contractor-owned or leased borrow pits associated with the project.
- c. Sufficient materials required for stabilization and/or repair of erosion control measures and stormwater routing and treatment shall be on site at all times.

4. Sediment and Erosion Control Measures

Sediment and erosion control measures shall not be placed in wetlands or waters to the maximum extent practicable. If placement of sediment and erosion control devices in wetlands and waters is unavoidable, they shall be removed and the natural grade restored within six months of the date that the Division of Land Resources has released the project;

5. Protective Fencing

The outside buffer, wetland or water boundary and along the construction corridor within these boundaries approved under this authorization shall be clearly marked with orange warning fencing (or similar high visibility material) for the areas that have been approved to infringe within the buffer, wetland or water prior to any land disturbing;

6. Stream Restoration and Wetland Restoration Plans

You have our approval for your proposed final stream restoration and wetland restoration at the site with the requirement for Monitoring Level I as described within the joint State/Federal agency *Stream Mitigation Guidelines* located at:

http://www.saw.usace.army.mil/wetlands/mitigation/stream_mitigation.html The stream restoration and wetland restoration at the site must be constructed, maintained, and monitored according to the plans approved by this Office. Any repairs or adjustments to the site must be made according to the approved plans or must receive written approval from this Office to make the repairs or adjustments. The restored stream and wetland, must be preserved in perpetuity by use of a conservation easement or other similar mechanism as part of the approved plans.

7. Certificate of Completion

Upon completion of all work approved within the 401 Water Quality Certification or applicable Buffer Rules, and any subsequent modifications, the applicant is required to return the attached certificate of completion to the 401 Oversight/Express Review Permitting Unit, North Carolina Division of Water Quality, 1650 Mail Service Center, Raleigh, NC, 27699-1650.

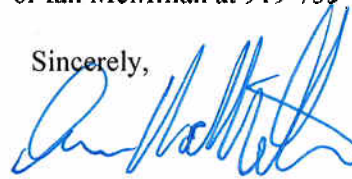
Violations of any condition herein set forth may result in revocation of this Certification and may result in criminal and/or civil penalties. The authorization to proceed with your proposed impacts or to conduct impacts to waters as depicted in your application and as authorized by this Certification, shall expire upon expiration of the 404 or CAMA Permit.

If you do not accept any of the conditions of this Certification (associated with the approved wetland or stream impacts), you may ask for an adjudicatory hearing. You must act within 60 days of the date that you receive this letter. To ask for a hearing, send a written petition, which conforms to Chapter 150B of the North Carolina General Statutes to the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, N.C. 27699-6714. This certification and its conditions are final and binding unless you ask for a hearing.

Any disputes over determinations regarding this Authorization Certificate (associated with the approved buffer impacts) shall be referred in writing to the Director for a decision. The Director's decision is subject to review as provided in Articles 3 and 4 of G.S. 150B.

This letter completes the review of the Division of Water Quality under Section 401 of the Clean Water Act. If you have any questions, please telephone Cyndi Karoly or Ian McMillan at 919-733-1786.

Sincerely,



Coleen H. Sullins, Director
Division of Water Quality

CHS/ijm

Enclosures: GC3626
Certificate of Completion

cc: USACE Washington Regulatory Field Office
Kyle Barnes, DWQ Washington Regional Office
DLR Washington Regional Office
File Copy
Central Files

Certification of Completion

DWQ Project No.: 07-0810 County: GATES

Applicant: BAYER ENGINEERING NY, INC.

Project Name: DUKE SWAMP WETLAND AND STREAM RESTORATION

Date of Issuance of Wetland Permit: JULY 9, 2007

Certificate of Completion

Upon completion of all work approved within the 401 Water Quality Certification and Buffer Rules, and any subsequent modifications, the applicant is required to return this certificate to the 401 Oversight/Express Permitting Unit, North Carolina Division of Water Quality, 1650 Mail Service Center, Raleigh, NC, 27699-1650. This form may be returned to DWQ by the applicant, the applicant's authorized agent, or the project engineer. It is not necessary to send certificates from all of these.

Applicant's Certification

I, Kevin Tuccedy, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: 

Date: 9-28-07

Agent's Certification

I, _____, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: _____

Date: _____

If this project was designed by a Certified Professional

I, _____, as a duly registered Professional _____ (i.e., Engineer, Landscape Architect, Surveyor, etc.) in the State of North Carolina, having been authorized to observe (periodically, weekly, full time) the construction of the project, for the Permittee hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: _____ Registration No. _____ Date _____

WQC #3626

GENERAL CERTIFICATION FOR STREAM RESTORATION, ENHANCEMENT AND STABILIZATION PROJECTS AND WETLAND AND RIPARIAN RESTORATION AND CREATION ACTIVITIES INCLUDING THOSE ELIGIBLE FOR CORPS OF ENGINEERS NATIONWIDE PERMIT NUMBERS 13 (BANK STABILIZATION) AND 27 (AQUATIC HABITAT RESTORATION, ESTABLISHMENT AND ENHANCEMENT ACTIVITIES) AND REGIONAL PERMIT 197800080 (CONSTRUCTION AND MAINTENANCE OF BULKHEADS)

This General Certification is issued in conformity with the requirements of Section 401, Public Laws 92-500 and 95-217 of the United States and subject to the North Carolina Division of Water Quality Regulations in 15A NCAC 2H .0500 and 15A NCAC 2B .0200 for the discharge of fill material to waters as described in 33 CFR 330 Appendix A (B) (13) and (27) of the Corps of Engineers regulations (i.e. Nationwide Permit Numbers 13 and 27) and Regional Permit 197800080. The category of activities shall include stream bank stabilization or stream restoration activity as long as impacts to waters or significant wetlands are minimized. This Certification replaces Water Quality Certification (WQC) Number 3399 issued March 2003 and WQC Number 3495 issued March 28, 2003. This WQC is rescinded when the Corps of Engineers reauthorize Nationwide Permits 13 or 27 or Regional Permit 197800080 or when deemed appropriate by the Director of the Division of Water Quality (DWQ).

The State of North Carolina certifies that the specified category of activity will not violate applicable portions of Sections 301, 302, 303, 306 and 307 of the Public Laws 92-500 and 95-217 if conducted in accordance with the conditions set forth.

Conditions of Certification:

1. Wetland and/or riparian area restoration and creation projects which are for compensatory mitigation or compensatory mitigation credit (and not including projects that only involve stream restoration or enhancement work described in condition nos. 2 and 3 below) that are proposed under this General Certification require written application to and approval from the Division of Water Quality. All applications for written DWQ approval will be reviewed and a response will be prepared within 30 days of stamped receipt of the application in the Division of Water Quality's Central Office in Raleigh. This 30-day period does not include time spent by the application or DWQ's response within US Postal Service or North Carolina's Mail Service Center mail systems;

Wetland and riparian area restoration and creation projects (not including projects that involve work in or impacts to streams) which are not for compensatory mitigation or compensatory mitigation credit proposed under this General Certification do not require written application to and approval from the Division of Water Quality. In these cases, the applicant is required to notify the Division in writing with three copies of project specifications before the impact occurs. If the Division determines that the project would not result in an ecologically viable wetland and riparian area, then the Division shall prepare a response to notify the applicant in writing within 30 days of DWQ's receipt of the notification. In such cases, the applicant will be required to submit a formal application and pay of the appropriate fee, and DWQ will be required to process the application through normal procedures;

2. Proposed stream restoration projects (as defined and limited below), that do not disturb wetlands and that are not being conducted for compensatory mitigation or compensatory mitigation credit do not require written application to and approval from the Division of Water Quality, and, therefore, do not require payment of an

WQC #3626

application fee to the Division of Water Quality. Projects that are intended for compensatory mitigation or compensatory mitigation credit, that are intended to resolve a violation, or that are in association with a development project shall require an application, fee, and written concurrence from the Division of Water Quality.

Stream restoration is defined as the process of converting an unstable, altered or degraded stream corridor, including adjacent riparian zone and floodprone areas to its natural or referenced, stable conditions considering recent and future watershed conditions. This biological and chemical integrity, including transport of water and sediment is produced by the stream's watershed in order to achieve dynamic equilibrium. The applicant is required to notify the Division in writing with three copies of detailed restoration plans and specifications before the impact occurs. If the Division determines that the project does not meet the above definition of stream restoration, then the Division shall notify the applicant in writing within 30 days of receipt of the application. In such cases, the applicant will be required to submit a formal application and pay of the appropriate fee, and DWQ will be required to process the application through normal procedures;

3. Stream enhancement projects (as defined and limited below), that do not disturb wetlands and that are not being conducted for compensatory mitigation or compensatory mitigation credit and do not include any stream channel relocation, do not require written application to and approval from the Division of Water Quality, and, therefore, do not require payment of an application fee to the Division of Water Quality. Projects that are intended for compensatory mitigation or compensatory mitigation credit, that are intended to resolve a violation, or that are in association with a development project shall require an application, fee, and written concurrence from the Division of Water Quality.
4. Stream enhancement is defined as the process of implementing stream rehabilitation practices in order to improve water quality and/or ecological function. These practices must only be conducted on streams that are not experiencing severe aggradation or erosion. Stream enhancement does not include the relocation of the stream channel. Stream enhancement bank stabilization techniques include the use of woody vegetation as the primary means of long term stability, and "soft" techniques such as root wads that encourage the establishment of dense woody vegetation. Stream enhancement techniques do not typically include the use of stream bank or bed hardening techniques such as rip-rap or other rock, gabion, block or concrete structures. However, enhancement activities may also include the placement of in stream habitat or grade control structures such as cross vanes, j-hook vanes, and wing deflectors that do not affect the overall dimension, pattern, or profile of a stable stream.

The applicant is required to notify the Division in writing with three copies of detailed enhancement plans and specifications before the impact occurs if the stream enhancement project disturbs greater than 500 feet of stream bank or if the project proposes the use of in stream structures. If the Division determines that the project does not meet the above definition of stream enhancement, then the Division shall notify the applicant in writing with an explanation within 30 days of receipt of the notification to require application and payment of the appropriate fee;

5. Stream stabilization projects that include the use of any structure or fill in the existing stream bed or disturb greater than 500 feet of stream bank that are proposed under this General Certification require written application to and approval from the Division of Water Quality.

WQC #3626

Stream stabilization is defined as the in-place stabilization of an eroding stream bank using measures that consist primarily of "hard" engineering, such as but not limited to concrete lining, rip rap or other rock, and gabions. The use of "hard" engineering will not be considered as stream restoration or enhancement;

6. Impacts to any stream length in the Neuse, Tar-Pamlico or Randleman River Basins (or any other major river basins with Riparian Area Protection Rules [Buffer Rules] in effect at the time of application) requires written concurrence for this Certification from DWQ in accordance with 15A NCAC 2B.0200. Activities listed as "exempt" from these rules do not need to apply for written concurrence under this Certification. New development activities located in the protected 50-foot wide riparian areas (whether jurisdictional wetlands or not) within the Neuse and Tar-Pamlico River Basins shall be limited to "uses" identified within and constructed in accordance with 15A NCAC 2B .0200. All new development shall be located, designed, constructed, and maintained to have minimal disturbance to protect water quality to the maximum extent practicable through the use of best management practices;
7. In order for the above conditions to be valid, any plans not requiring written concurrence to use this Certification must be built according to the plans provided to the Division of Water Quality. If written concurrence is required, then the project must be built and maintained according to the plans approved by the written concurrence and Certification from the Division of Water Quality;
8. Appropriate sediment and erosion control practices which equal or exceed those outlined in the most recent version of the "North Carolina Erosion and Sediment Control Planning and Design Manual" or "North Carolina Surface Mining Manual" whichever is more appropriate (available from the Division of Land Resources at the DENR Regional and Central Offices) shall be designed, installed and maintained properly to assure compliance with the appropriate turbidity water quality standard (50 NTUs in streams and rivers not designated as trout waters by DWQ; 25 NTUs in all saltwater classes and all lakes and reservoirs; 10 NTUs in DWQ-classified trout waters);
9. All sediment and erosion control measures placed in wetlands or waters shall be removed and the original grade restored after the Division of Land Resources or delegated program has released the project;
10. Any rip-rap shall be of such a size and density so as not to be able to be carried off by wave or current action and consist of clean rock or masonry material free of debris or toxic pollutants. Rip-rap shall not be installed in the streambed except in specific areas required for velocity control and to ensure structural integrity of bank stabilization measures. If rip-rap is to be installed within the streambed, the amount and location must be approved in writing by the Division of Land Resources and Division of Water Quality. However rock vanes, wing deflectors, and similar structures for grade control and bank protection are acceptable;
11. Measures shall be taken to prevent live or fresh concrete from coming into contact with freshwaters of the state until the concrete has hardened;
12. If an environmental document is required, this Certification is not valid until a Finding of No Significant Impact or Record of Decision is issued by the State Clearinghouse;

WQC #3626

Non-compliance with or violation of the conditions herein set forth by a specific project shall result in revocation of this Certification for the project and may also result in criminal and/or civil penalties.

The Director of the North Carolina Division of Water Quality may require submission of a formal application for Individual Certification for any project in this category of activity if it is determined that the project is likely to have a significant adverse effect upon water quality including state or federally listed endangered or threatened aquatic species or degrade the waters so that existing uses of the wetland or downstream waters are precluded.

Public hearings may be held for specific applications or group of applications prior to a Certification decision if deemed in the public's best interest by the Director of the North Carolina Division of Water Quality.

Effective date: 19 March 2007

DIVISION OF WATER QUALITY

By



Alan W. Klimek, P.E.

Director

WQC # 3626

Mitigation Project Name Duke Swamp
 EEP IMS ID 92544
 River Basin CHOWAN
 Cataloging Unit 03010203

Applied Credit Ratios: 1:1 1.5:1 2.5:1 5:1 1:1 3:1 2:1 5:1 1:1 3:1 2:1 5:1 1:1 3:1 2:1 5:1 1:1 3:1 0.5:1 1:1 1:1

				Stream Restoration	Stream Enhancement I	Stream Enhancement II	Stream Preservation	Riparian Restoration	Riparian Creation	Riparian Enhancement	Riparian Preservation	Nonriparian Restoration	Nonriparian Creation	Nonriparian Enhancement	Nonriparian Preservation	Coastal Marsh Restoration	Coastal Marsh Creation	Coastal Marsh Enhancement	Coastal Marsh Preservation	Stream Buffer Restoration (sf)	Stream Buffer Enhancement (sf)	Buffer Nutrient Offset Only (sf)	Total Stream Buffer (acres)	NO Nitrogen	NO Phosphorus		
Beginning Balance (feet and acres)				5,382.00				12.00	7.60																		
NCDOT Pre-EEP Debits (feet and acres):				Not Applicable																							
EEP Debits (feet and acres):																											
DWQ Permit No	USACE Action IDs	CAMA Permit No	Impact Project Name																								
2012-0296	2006-10391	92-12	NCDOT TIP R-2507A - US 13	163.00				12.00	7.60																		
Remaining Balance (feet and acres)				5,219.00				0.00	0.00																		