

**STREAM BUFFER ENCROACHMENT**  
Stream Buffers are impacted by this project.

Non-exempt activities shall not be conducted within the stream buffers without first acquiring the necessary variances and permits.

The Contractor is not authorized to enter into stream buffers, except as described in the table below.

Name (name or number of feature)	Location of Buffered Streams and State Waters **			Stream Type (Warm/Cold Water) *	Buffer Impacted (Yes/No)	Buffer Variance Required?
	Alignment	Begin Sta (Lt or RT)	Ending Sta (Lt or Rt)			
Alignment	SR 136	STA 25+30	STA 26+50	WARM	YES	NO
PERPENDICULAR ROADWAY CROSSING						

\* Warm water streams have a 25-foot minimum buffer as measured from the wrested vegetation. Cold Water streams have a 50-foot buffer as measured from the wrested vegetation.  
\*\* Locations are approximate, a detailed location of stream buffers and authorized work areas are shown on the Individual BMP sheets.

**ACTIVITY SCHEDULE**

Erosion Control measures shall be installed prior to or concurrent with land disturbance activities and shall be maintained at all times. Additional Erosion and Sediment Control Devices shall be installed if deemed necessary by onsite inspection or as directed by the engineer.

ESPC ACTIVITY SCHEDULE	PHASE I	PHASE II	PHASE III
Install Perimeter ESPC	X		
Clearing & Demolition	X		
Install Intermediate ESPC		X	
Excavation & Backfill		X	
Temp. Grassing & Mulching		X	
Project Construction		X	X
Permanent Grassing			X
Final Stabilization & Clean out Storm Sewers			X
Remove Temporary Sediment Control Measures			X

Seeding chart	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Broadcast Rates per acre	Analysis	Fertilizer Rates per acre
	1	2	3	4	5	6	7	8	9	10	11	12			
Permanent Grassing (mix):															
Wilmington Bahua													30 lbs	6-12-12	50-100 lbs
Series Lespedeza													60 lbs	6-12-12	50-100 lbs
Temporary Grassing:															
Annual Ryegrass													40 lbs	10-10-10	30lbs
or															
Sudangrass													60 lbs	10-10-10	30lbs

Solid lines indicate optimum planting dates. Dotted lines indicate permissible but marginal dates.

**RECORD OF DATES - CONSTRUCTION ACTIVITIES**

NOTE TO PERMITTEES: COMPLETE THE FOLLOWING TABLE TO INCLUDE THE DATES WHEN INITIAL CONSTRUCTION ACTIVITIES COMMENCE, MAJOR GRADING ACTIVITIES OCCUR, WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE, AND WHEN STABILIZATION MEASURES ARE INITIATED. THE DESIGN PROFESSIONAL WHO PREPARED THIS PLAN SHALL BE NOTIFIED WHEN THIS TABLE IS AMENDED.

DATE	DESCRIPTION OF CONSTRUCTION ACTIVITY

**RETENTION OF RECORDS**

The primary permittee shall retain the following records at the construction site or the records shall be readily available at a designated alternate location from commencement of construction until such time as a NOT 1s submitted in accordance with Part VI:

- A copy of all Notices of Intent submitted to EPD;
- A copy of the Erosion, Sedimentation and Pollution Control Plan required by this permit;
- The design professional's report of the results of the inspection conducted in accordance with Part IV.A.5. of this permit;
- A copy of all monitoring information, results, and reports required by this permit;
- A copy of all inspection reports generated in accordance with Part IV.D.4.a. of this permit;
- A copy of all violation summaries and violation summary reports generated in accordance with Part III.D.2. of this permit; and
- Daily rainfall information collected in accordance with Part IV.D.4.a.(1)(c) of this permit.

**MONITORING GENERAL NOTES:**

Representative sampling may be utilized on this project. The characteristics of the individual watersheds along the project corridor have been carefully evaluated and compared on the basis of drainage characteristics, watershed size, land disturbance and earth work. After evaluation of these items as presented in the projects drainage area maps, hydrology and hydraulic studies, construction plans and erosion sedimentation and pollution control plans, it has been determined that the increase in turbidity at the specified locations will be representative of the increase in turbidity for all waters leaving the site. Approved primary and alternate representative monitoring sites are identified in the table:

Monitoring site	Primary or Alternate Site	Location (Sta. and Side)	Name of Receiving water	Applicable construction stage for monitoring	Sampling Type (Outfall or Receiving Water)	Drainage Area	Disturbed Area	Site Area	Total Project Area	Warm or Cold Water Stream	Appendix B NTU value (Initial Monitoring Only)	Allowable NTU increase (For Receiving Water)	Location Description
1.	P	50' LT FROM PROPOSED BRIDGE	WEST CHICKAMAUGA CREEK	ALL STAGES	RECEIVING	23.44 AC	1.26 AC	2.04 AC	5.25 AC	WARM	N/A	25	DOWNSTREAM OF PROPOSED BRIDGE
2.	P	50' RT FROM PROPOSED BRIDGE	WEST CHICKAMAUGA CREEK	ALL STAGES	RECEIVING	20.13 AC	1.05 AC	1.94 AC	5.25 AC	WARM	N/A	25	UPSTREAM OF PROPOSED BRIDGE

(According to the EPD, additional monitoring sites may be required depending on significant changes in typical sections)

The primary site specified should be used as the initial sampling location. The alternate sampling sites may be used if additional sampling is required and/or if the primary sampling site is no longer located within the active phase of construction.

**STORMWATER SAMPLING**

**SAMPLE ANALYSIS**

Storm water samples are to be analyzed in accordance with methodology and test procedures established by 40 CFR Part 136 and the guidance document titled "NPDES Storm Water Sampling Guidance Document, EPA 833-B-92-001."

**SAMPLING FREQUENCY**

Storm water samples shall be taken for the following storm events:

- For each area of the site that discharges to a receiving stream, the first rain event that reached or exceeds 0.5 inch and allows for monitoring during normal business hours \* (Monday through Friday, 8:00AM to 5:00PM and Saturday 8:00AM to 5:00PM when construction activity is being conducted by the Primary Permittee) that occurs after all clearing and grubbing operations have been completed in the drainage area of the location selected as the sampling location;
- In addition to (a) above, for each area of the site that discharges to a receiving stream, the first rain event that reaches or exceeds 0.5 inch and allows for monitoring during normal business hours \* that occurs either 90 days after the first sampling event or after all mass grading operations have been completed in the drainage area of the location selected as the sampling location, whichever comes first;
- At the time of sampling performed pursuant to (a) and (b) above, if BMP's are found to be properly designed, installed and maintained, no further action is required. If BMP's in any area of the site that discharges to a receiving stream are not properly designed, installed and maintained, corrective action shall be defined and implemented within 2 business days, and turbidity samples shall be taken from discharges from that area of the site for each subsequent rain event that reaches or exceeds 0.5 inch during normal business hours \* until the selected turbidity standard is attained, or until post-storm event inspections determine that BMP's are properly designed, installed and maintained.

**RECORD KEEPING**

Primary Permittee.

A report of each inspection that includes the name(s) of personnel making each inspection, the date(s) of each inspection, major observations relating to the implementation of the Erosion, Sedimentation & Pollution Control Plan, and actions taken in accordance with Part IV.D.4.a.(4). of the permit shall be made and retained at the site or be readily available at a designated alternate location until the entire site or that portion of a construction project that has been phased has undergone final stabilization and a Notice of Termination is submitted to EPD.

Such reports shall identify any incidents of non-compliance. Where the report does not identify any incidents of non-compliance, the report shall contain a certification that the construction site is in compliance with the Erosion, Sedimentation and Pollution Control Plan and this permit. The report shall be signed in accordance with Part V.G. of this permit.

**DISCHARGES INTO, OR WITHIN ONE LINEAR MILE UPSTREAM OF AND WITHIN THE SAME WATERSHED AS, ANY PORTION OF A BIOTA IMPAIRED STREAM SEGMENT**

All outfalls are either located further than 1 linear mile upstream or outside of the watershed of an Impaired Stream Segment that has been listed for criteria violated, "Bio F" (Impaired Fish Community) and/or "Bio M" (Impaired Macro Invertebrate Community), within Category 4a, 4b or 5, and the potential cause is either "NP" (nonpoint source) or "UR" (urban runoff).

**STORM DRAIN PIPES**

STR.*	LOCATION	SIZE	Q ft <sup>3</sup> /sec	VELOCITY ft/sec	PROTECTION	DIMENSIONS		
						L <sub>a</sub> (ft)	W <sub>1</sub> (ft)	W <sub>2</sub> (ft)
D-2	23+49, 22' LT	18"	0.64	0.36	Sd2-F	--	--	--
D-1	23+73, 42' LT		0.64	0.36	St-Rp	9.5	4.5	12.5
E-2	23+49, 22' RT	18"	0.64	0.36	Sd2-F	--	--	--
E-1	23+58, 55' RT		0.64	0.36	St-Rp	9.5	4.5	12.5
F-2	27+05, 22' LT	18"	0.64	0.36	Sd2-F	--	--	--
F-1	26+98, 54' LT		0.64	0.36	St-Rp	9.5	4.5	12.5
G-1	27+05, 20' RT	-	0.64	0.36	Sd2-F	--	--	--
H-2	29+74, 32' RT		3.42	9.11	Fr/St-Rp	--	--	--
H-1	29+55, 34' LT	18"	3.42	9.11	St-Rp	6.5	4.5	12
EXIST.	77-60, 22' LT	EXIST.	22.98	9.14		--	--	--
C-1J	78+15, 26' RT	15"	6.35	8.87		--	--	--
C-1	78+31, 42' RT		6.35	8.87	St-Rp	9.5	6.5	12.5
A-2	78-15, 25' LT	30"	38.6	12.03		--	--	--
A-1	78-75, 38' RT		38.6	12.03	St-Rp	11	7.5	14
A-5	80+54, 36' LT	24"	18.54	7.10	Fr/St-Rp	--	--	--
A-4	80+77, 47' RT		18.54	7.10	St-Rp	15	6.5	22
B-2	81+68, 23' LT	36"	41.76	7.88	Fr/St-Rp	--	--	--
B-1	81+52, 29' RT		41.76	7.88	St-Rp	12	9	15

**SEDIMENT STORAGE**

The following table summarizes the required and available sediment storage for every outfall on this project. The Contractor shall provide and maintain the storage volumes for the BMPs specified in this table.

Drainage Area	Total drainage area (ac)	Disturbed area (ac)	Avg. Sediment Storage Volume (cy)	Total storage volume provided (cy)	Silt Fence		Filter Ring		Check Dam (1.55 cy each)		Inlet Sediment Traps (67 cy/ac each)	
					LF	Total Volume	# of Devices	Total Volume	# of Devices	Total Volume	# of Devices	Total Volume
A	48.20	0.21	3229	10.31	0	0	0	0	1	10.31	0	0
A	58.32	0.26	3907	50.67	223	26.76	1	7.44	2	16.47	0	0
B	43.89	0.43	2941	26.32	94	11.28	2	14.88	4	0.16	0	0
C	2.47	0.19	165.49	63.80	470	56.40	1	7.44	0	0	0	0
D	0.08	0.43	5.53	133.54	819	98.28	0	0	2	3.10	1	32.16
E	0.08	0.22	5.20	134.83	850	102.00	0	0	0	0	1	32.83
F	0.09	0.33	5.98	109.34	766	91.92	0	0	0	0	1	17.42
G	0.08	0.27	5.49	74.31	423	50.76	0	0	1	10.15	1	13.40
H	81.6	1.23	54672	244.46	227	27.24	1	7.44	8	209.78	0	0

The installation of a sediment basin would increase the disturbed area and was not feasible due to property constraints. The total storage volume provided does not meet the required; however, the drainage areas flow into West Chickamauga Creek which is protected by a double row of Type C silt fence. Furthermore, when the sediment fills to a volume at most 22 cy per acre, the sediment shall be removed and properly disposed by the contractor to restore the original design volume. Additionally, any areas left disturbed for more than 7 days shall be stabilized with mulch and/or anionic polyacrylamide (PAM).

In order to prevent runoff from bypassing inlet sediment traps, a temporary berm shall be installed on the downstream side of all inlet sediment traps that are not located in a low point or an excavated sump. Temporary berms, when necessary, shall be a minimum of 18" high and constructed in a manner that ensures stormwater does not bypass the inlet. The Contractor may submit alternate temporary containment berm designs to the Project Engineer for approval.



KARI E. WARD, P. E.  
GSWCC LEVEL II No. 46526

DATE



**REVISION DATES**

05/31/11		

STATE OF GEORGIA  
DEPARTMENT OF TRANSPORTATION

OFFICE:  
**ESPC GENERAL NOTES**

SR 136 OVER WEST CHICKAMAUGA CREEK  
BR000-0005-00(571) 5/5/2011

DRAWING No.  
**51-002**