

49) SEDIMENT STORAGE

The site has a total disturbed area of 2.00 acres. 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 BMP's specified in this table.

Outfall	Station/Offset	Total Drainage Area (acres)	*Disturbed Area (acres)	Required Sediment Storage Volume (yd ³)	Total Storage Volume Provided (yd ³)	Temporary Sediment Basins		Check Dams (6.8 yd ³ /each)		Inlet Sediment Traps (15.8 yd ³ /each)		Silt Fence (0.3 yd ³ /ft)	
						Basin #	Total Volume (yd ³)	# of Devices	Total Volume (yd ³)	# of Devices	Total Volume (yd ³)	Length (ft)	Total Volume (yd ³)
**Outfall A-1	110+70, 77' RT	3.44	0.58	230.5	235.3	0	0	13	88.9	3	47.4	330	99.0
Outfall B-1	110+40, 81' LT	0.43	0.25	28.8	47.4	0	0	0	0	3	47.4	0	0
Outfall C-1	113+80, 77' LT	0.03	0.03	2.0	15.8	0	0	0	0	1	15.8	0	0
Outfall D-1	114+10, 76' RT	0.03	0.03	2.0	15.8	0	0	0	0	1	15.8	0	0
Total Sheet Flow	N/A	0.88	0.88	59.0	321	N/A	0	N/A	0	N/A	0	1070	321.0

* Drainage area across 0.23 acres of disturbed area on PI #0013999 is to be accounted for in PI #0009975 sediment storage volumes.

** The drainage area for Outfall A-1 includes the drainage area for Outfall 5 (ditch from Station 103+50 to 109+50 RT) and all sheet flow draining to Outfall A-1.

To prevent runoff from bypassing inlet sediment traps, a temporary sump shall be installed around all inlet sediment traps that are not located in a low point or an excavated sump. Construct temporary sumps in accordance with Construction Detail D-24C. Temporary sumps shall be installed 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.

TEMPORARY SEDIMENT BASIN DETAILS:

Outfall A-1: No sediment basins are used at this location. The required sediment storage is met through the use of Check Dams, Inlet Sediment Traps and Silt Fence. Additional protection is provided through the use of Mulch, Grassing (Temporary and Permanent) and a Rock Filter Dam. A sediment basin is not feasible at this location due to the terrain and lack of room inside the Exst R/W.

Outfall B-1: No sediment basins are used at this location. The required sediment storage is met through the use of Inlet Sediment Traps. Additional protection is provided through the use of Mulch and Grassing (Temporary and Permanent). A sediment basin is not feasible at this location because the drainage area is almost exclusively comprised of a curb and gutter section before entering a closed pipe system.

Outfall C-1: No sediment basins are used at this location. The required sediment storage is met through the use of Inlet Sediment Traps. Additional protection is provided through the use of Mulch and Grassing (Temporary and Permanent). A sediment basin is not feasible at this location because the drainage area is almost exclusively comprised of a curb and gutter section before entering a closed pipe system.

Outfall D-1: No sediment basins are used at this location. The required sediment storage is met through the use of Inlet Sediment Traps. Additional protection is provided through the use of Mulch and Grassing (Temporary and Permanent). A sediment basin is not feasible at this location because the drainage area is almost exclusively comprised of a curb and gutter section before entering a closed pipe system.

10) 22) 23) DISCHARGES INTO OR WITHIN ONE LINEAR MILE UPSTREAM OF AND WITHIN THE SAME WATERSHED AS ANY PORTION OF A BIOTA IMPAIRED STREAM SEGMENT

The following is a summary of project outfalls within 1 mile and within the watershed of an identified 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).

Outfall ID # and Location (Station and Offset)	Reach Name	Location of the Impaired Stream Segment as Indicated in the 305b/303d List	Criteria Violated (Bio F/Bio M)	Potential Cause (NP/UR)	Category (4a, 4b, or 5)	Numeric Waste Load Allocation (WLA) for sediment*
Outfall A-1 STA 110+70, 77' RT	Long Cane Creek	Headwaters to Panther Creek to Chattahoochee	Bio F	UR	4a	92.8 tons/yr
Outfall B-1 STA 110+40, 81' RT	Long Cane Creek	Headwaters to Panther Creek to Chattahoochee	Bio F	UR	4a	92.8 tons/yr
Outfall C-1 STA 113+80, 77' LT	Long Cane Creek	Headwaters to Panther Creek to Chattahoochee	Bio F	UR	4a	92.8 tons/yr
Outfall D-1 STA 114+10, 76' RT	Long Cane Creek	Headwaters to Panther Creek to Chattahoochee	Bio F	UR	4a	92.8 tons/yr

TMDLs completed B12 2003 (revised 2008), C 2003.

*If the TMDL Implementation Plan establishes a specific numeric waste load allocation that applies to the project discharge(s) to the Impaired Stream Segment, then the Certified Design Professional must incorporate that allocation into the Erosion, Sedimentation and Pollution Control Plan and implement all necessary measures to meet that allocation. See Appendix I for additional required BMPs for this project.

46) RIPRAP OUTLET PROTECTION

Structure #, Outfall ID#, or Station and Offset	Pipe Diameter Do (ft)	Q ₂₅ (ft ³ /s)	V ₂₅ (ft/s)	Tailwater Condition (TW<0.5 Do TW>0.5 Do)	Width at Drainage Structure W1=3Do (ft)	Apron Length La (ft)	Downstream Width W2=Do+La (ft)	Average Stone Diameter d ₅₀ (ft)	Apron Thickness D (ft)	Riprap Type (Type 3 or Type 1)	Quantity (yd ²)
A-1	2.0	9.8	13.8	TW<0.5 Do	6.00	13	15.00	0.67	1.50	Type 3	*
B-1	1.5	4.0	10.7	TW<0.5 Do	4.50	9.75	11.25	0.67	1.50	Type 3	*
C-1	1.5	3.6	10.0	TW<0.5 Do	4.50	9.75	11.25	0.67	1.50	Type 3	*
D-1	1.5	3.0	9.2	TW<0.5 Do	4.50	9.75	11.25	0.67	1.50	Type 3	*

* The scour protection rock provides sufficient rip rap outlet protection and meets minimum requirements shown in the table above for all 4 outfalls, therefore, there are not any additional quantities of rip rap for outlet protection.

CHANNEL PROTECTION

All channels may be stabilized exclusively with permanent grassing except as noted otherwise in the table below.

Begin Station and Offset	End Station and Offset	Q ₂₅ (ft ³ /s)	V ₂₅ (ft/s)	Type of Channel Lining	Channel Bottom Width (ft)	Depth of Protection Dp (ft)	Quantity (yd ²)
106+00 RT	107+50 RT	12.7	2.50	TRM-1	4.0	1.00	190

STATE-WATER BUFFER IMPACTS

State-water buffers, as defined by O.C.G.A. 12-7-1, are impacted by this project.

15) Non-exempt activities shall not be conducted within the 25- or 50-foot undisturbed stream buffers as measured from the point vested vegetation or within 25-feet of the coastal marshland buffer as measured from the Jurisdictional Determination Line without first acquiring the necessary variances and permits.

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

State-Water ID# or Name	Location of Buffered Streams and State Waters**			Stream Type (Warm/Cold Water)*	Buffer Variance Required? (Yes/No)
	Roadway Alignment	Begin Station and Offset	End Station and Offset		
Perennial Stream #1	SR 18	STA 110+65 LT STA 111+82 RT	STA 113+50 LT STA 113+27 RT	Warm	No

The contractor is allowed within the buffer for the purposes of existing bridge demolition and construction of proposed bridge.

Unless noted otherwise, utility companies will be submitting the required permits/variances in conjunction with the impacts caused by their activities. If utility impacts are covered by the Department's stream buffer variance, this shall be noted in the buffer-variance-required column.

* Warm water streams have a 25-foot minimum buffer as measured from the vested vegetation. Cold water streams have a 50-foot buffer as measured from the vested vegetation.

**Locations are approximate, a detailed location of stream buffers and authorized work areas are shown on the individual BMP sheets

REVISION DATES

ESPCP GENERAL NOTES
SR 18 BRIDGE REPLACEMENT @ LONG CANE CREEK
TROUP COUNTY

CHECKED:	DATE:	DRAWING No.
BACKCHECKED:	DATE:	
CORRECTED:	DATE:	
VERIFIED:	DATE:	