

SEDIMENT STORAGE

The site has a total disturbed area of 4.48 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 ID	Total Drainage area (acres)	Disturbed Area (acres)	Required Sediment Storage Volume (cu yd)	Total Storage volume provided (cu yd)	Sediment Basins		Check Dam (cy/each)		Rock Filter Dam (cy/each)		Silt Fence (0.3 cy/ft)	
					Pond *	Total Volume	* of Devices	Total Volume	* of Devices	Total Volume	* of Devices	Total Volume
1	2.55	0.01	170.6	18.07					1	18.07		
2	0.50	0.02	33.2	17.11					1	17.11		
3	0.98	0.36	65.8	258.61					1	258.61		
4	0.93	0.34	62.2	97.87					1	97.87		
5	0.61	0.05	40.9	2.96			7	2.96				
6	1.64	0.94	109.8	23.10			17	23.10				
7	11.321	1.82	758.3	65.90			28	65.90				
SHEETFLOW	1.27	0.94	85.1	1123.50							37.45	1123.50

In order 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.

The total storage volume provided is less than the required sediment storage volume. The outfalls will be protected by the use of check dams, silt fence, outlet protection, and mat blankets.

The construction & maintenance of a sediment basin would increase the amount of disturbed area, which would increase the impacts to the ESAs present within the project limits.

USE OF ALTERNATIVE AND/OR ADDITIONAL BMPs:

Alternative BMPs are not used on this project. Silt Gates are used on this project as additional BMPs at pipe inlets and are not being used in place of or as a substitute for other conventional BMPs. Temporary check dams are used in ditches to provide interim stabilization and flow velocity reduction. The stability of the site is maintained with other conventional BMPs as shown on the plans. This ESPCP would be fully compliant with permit requirements if the silt gates were removed and as a result are not considered alternative BMPs when used on this project. The silt gates help to prevent pipe clogging during construction that can result from the ingestion of sediments and other large debris like riprap, sand bags, roadway debris and other construction materials that when combined with sediments easily clog roadway drainage pipes. Sediments stored by silt gates is not included in the required minimum sediment storage volume or shown in the sediment storage table.

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).

STREAM BUFFER ENCROACHMENT

Stream Buffers are impacted by this project. 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 (L or RT)	End Sta (L or Rt)			
STREAM 2	SR 47	10+46.28 LT	10+99.05 LT	WARM	YES	NO
Extending the existing culvert and construction of slopes.						

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 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.

MONITORING GENERAL NOTES:

The total site size is 5.75 acres. Representative sampling may be utilized on this project.

The individual outfall drainage basins along the project corridor have been carefully evaluated and compared on the basis of four characteristics: the type of construction activity, the disturbed acreage, the average slope about the outfall, and the soil erosion index 0-10, 10 being the most erodible soil. The construction activity types are new road in fill, new road in cut, road widening, and maintenance/safety. The disturbed area classes are less than or equal to 1 acre, greater than 1 acre to less than 2 acres, and equal to or greater than 2 acres. The average outfall slope is mild if it is equal to or less than 0.03, and steep if it is greater than 0.03. The soil erosion index is low if it is less than or equal to 5 and high if it is greater than 5. After evaluation of these characteristics as presented in the project's drainage area map, hydrology and hydraulic studies, construction plans, geotechnical soil survey, and erosion sedimentation and pollution control plans, the Department has determined that representative sampling is valid for the duration of the project. The table below shows the groups of similar outfall drainage basins.

The increase in turbidity at the specified locations in the table below will be representative of the alternate outfall drainage basins when similar outfall drainage basins exist. Approved primary and alternate representative monitored features are identified in the table below.

SAMPLING INFORMATION												OUTFALL CHARACTERISTICS				
Primary Monitored Feature	Location (station and offset)	Name of Receiving Water	Applicable construction stage for monitoring	Sampling Type (Outfall or Receiving Water)	Drainage Area (For the receiving water)	Total Project Area	Warm or Cold water Stream	Appendix B NTU value (Outfall Monitoring Only)	Allowable NTU Increase (For Receiving Water)	Location Description	Construction Activity	Disturbed Area (acres)	Average Outfall Slope (rise/run)	Soil Erosion Index	Alternate Outfall Drainage Basins	
6	3+65 7+00 RT	WETLAND #4	ALL STAGES	OUTFALL	0.020 SQ MI	5.75 AC	WARM	75	N/A	A-7	Road Widening	0.94	0.0380	5	1,2,3,4,5	
7	32+99 7+09 RT	WETLAND #4	ALL STAGES	OUTFALL	0.020 SQ MI	5.75 AC	WARM	75	N/A	A-4	Road Widening	1.82	0.0462	5	N/A	

The primary monitored features specified should be used for all stages of construction. An alternate monitored feature may be used if additional sampling is required or to replace a primary monitored feature that is no longer located within the active phase of construction. The A-II representative category is combined with Primary Monitored Feature #1-A-4 due to the close proximity & minimal construction surrounding A-II.

DITCH LINING DETAILS

Ditch Name	Roadway	Beginning Station	Ending Station	Site	Drainage Area (ac)	0 (cfs)	Ditch Slope %	Bottom W. Mth (ft)	Front Slope Z1	Back Slope Z2	Erosion Index	Manning's n	Vegety (ft/s)	Normal Depth (ft)	M. In. Required Lining Height (ft)	M. In. Required Median Dia. For Riprap d 50	Lining Type
Ditch 1	SR 47 South	10+91	12+37	RT	0.848	5.16	4.14	4	4	2	5.58	0.03	4.04	0.3	1.0	0	RRTP1
Ditch 2	SR 47 North	20+50	24+95	RT	8.960	9.19	0.77	4	4	2	5.40	0.09	1.38	1.3	2.0	0	GRASS
Ditch 3	SR 223 West	30+50	31+67	LT	0.730	1.53	2.79	4	4	2	5.21	0.13	1.01	0.5	1.0	0	GRASS
Ditch 4	SR 223 West	31+67	34+45	LT	0.830	5.34	1.33	4	4	2	5.21	0.13	0.79	0.7	1.5	0	GRASS
Ditch 5	SR 223 East	40+50	44+45	LT	1.840	2.14	4.11	4	4	2	4.78	0.13	1.14	0.4	1.0	0	GRASS
Ditch 6	SR 223 East	42+64	44+47	RT	0.270	1.43	3.63	4	4	2	4.72	0.00	0.00	0.0	0.0	0	GRASS

NOTE: Values of zero indicates values were too small; use grass

MONITORING SAMPLING METHODS & PROCEDURES

See Special Provision 167 and other contract documents for Monitoring Sampling Methods and Procedures.

READY MIX CHUTE WASH-DOWN

The washing of ready-mix concrete drums and dump truck bodies used in the delivery of portland cement concrete is prohibited on this site.

In accordance with standard Specification 107 - Legal Regulations and Responsibility to the Public, only the discharge chute utilized in portland cement concrete delivery may be rinsed free of fresh concrete remains. The Contractor shall excavate a pit outside of State water buffers, at least 25 feet from any storm drain and outside of the travel way, including shoulders, for a wash/pit area. The pit shall be large enough to store all wash-down water without overtopping the pit. Immediately after the wash-down operations are completed and after the wash-down water has soaked into the ground, the pit shall be filled in, and the ground above shall be graded to match the elevation of the surrounding areas smoothed out. Alternate wash down plans must be approved by the Project Engineer.

Wash-down plans describe procedures that prevent wash down water from entering streams and rivers. Never dispose of wash-down water down a storm drain. Establish a wash-down pit that includes the following: (1) a location away from a storm drain, stream or river, (2) access to the vehicle being used for wash-down, (3) sufficient volume for wash-down water, and (4) permission to use the area for wash-down.

On sites where permission or access to excavate a wash-down pit is unavailable, the Contractor may have to wash-down into a sealable 55-gallon drum or other suitable container and then transport the container to a proper disposal site. For additional information, refer to the Georgia Small Business Environmental Assistance Program's "A Guide For Ready Mix Chute/Hopper Wash-down".