

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)		Inlet Sediment Traps (* cy/each)		Slit Fence (0.3 cy/ft)	
					Pond *	Total Volume	* of Devices	Total Volume	* of Devices	Total Volume	* of Devices	Total Volume
A-4	9.0	0.61	600.3	58.38			16	58.38				
A-4	1.8	0.47	123.3	7.53			12	7.53				
A-7	0.7	0.18	48.2	3.70			4	3.70				
A-7	0.2	0.17	11.4	5.81			3	5.81				
A-11	0.3	0.12	18.0	5.68			8	5.68				
B-2	27.3	1.03	1826.9									

NOTE: Runoff from outfalls A-2, A-5, and B-2 exits the project without traveling through a ditch. The runoff from approximately 1.92 acres of disturbed area leaves the project site, at locations with rural shoulders, without going through one of the listed outfalls. These areas will be protected by the use of perimeter slit fence, permanent riprap and permanent soil reinforcing mat.

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, slit fence, and outlet protection.

USE OF ALTERNATIVE AND/OR ADDITIONAL BMPs:

No alternative or additional BMPs will be used on this project.

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 (Lt or Rt)	End Sta (Lt or Rt)			
STREAM 2	SR 47	10+73.23 LT	10+73.23 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 wretched vegetation. Cold water streams have a 50-foot buffer as measured from the wretched 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 4.89 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 on 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)	Upstream Disturbed 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
1	PRIM	20+27.63 171.38' LT	UNNAMED TRIBUTARY	CLEARING & STAGE 1	OUTFALL	0.016 SQ MI	4.8 AC	WARM	75	N/A	STR A-4	Road Widening	0.71	0.0234	4	3
2	PRIM	10+73.19 33.68' LT	UNNAMED TRIBUTARY	CLEARING & STAGE 1	OUTFALL	0.043 SQ MI	4.8 AC	WARM	75	N/A	STR B-2	Road Widening	0.70	0.0163	4	N/A

The primary monitored features specified should be used as the initial sampling locations. 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.

DITCH LINING DETAILS

Ditch Name	Roadway	Beginning Station	Ending Station	Site	Drainage Area (ac)	Q (cfs)	Ditch Slope %	Bottom Width (ft)	Front Slope Z1	Back Slope Z2	Erosion Index	Manning's n	Velocity (ft/s)	Normal Depth (ft)	Min. Required Lining Height (ft)	Min. Required Median Dia. For Riprap (ft)	Lining Type
Ditch 1	SR 47 South	10+91	12+37	RT	0.848	5.16	4.14	4	2	5.58	0.03	4.04	0.3	1.0	0	0	RRTPI
Ditch 2	SR 47 North	20+50	24+95	RT	8.960	9.19	0.77	4	4	5.40	0.09	1.38	1.3	2.0	0	0	GRASS
Ditch 3	SR 223 West	30+50	31+67	LT	0.730	1.53	2.79	4	4	5.21	0.13	1.01	0.5	1.0	0	0	GRASS
Ditch 4	SR 223 West	31+67	34+45	LT	0.830	5.34	1.33	4	4	5.21	0.13	0.79	0.7	1.5	0	0	GRASS
Ditch 5	SR 223 East	40+50	44+46	LT	1.840	2.14	4.11	4	4	4.78	0.13	1.14	0.4	1.0	0	0	GRASS
Ditch 6	SR 223 East	42+64	44+47	RT	0.270	1.43	3.63	4	4	4.72	0.00	0.00	0.0	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".



REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION

OFFICE: ROADWAY DESIGN

ESPCP GENERAL NOTES

SR47 @ SR223 INTERSECTION
IMPROVEMENT

DRAWING No.
51-002