

SEDIMENT BASIN DESIGN DATA SHEET (SBD-034D) - Item #12.1

APPLICANT		Application/Permit No.	
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BASIN NO.		NPDES No.		VA State Plane Northing		VA State Plane Easting	
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GENERAL INFORMATION

Hazard Classification			
Total Drainage Area (acres)		Design Flow (cfs)	
Total Disturbed Drainage Area (acres)		Design Storm Event (year/hour)	
Total Disturbed Area to be Treated by Basin (acres)			
Required Basin Volume ¹ (ac-ft)		Required Sediment Volume ² (ac-ft)	
Basin Volume Provided (ac-ft)		Sediment Volume Provided (ac-ft)	

BASIN GEOMETRY

	Bottom	Sediment Volume Provided	Basin Volume Provided	Emergency Spillway	Top
Elevation (ft.)					
Area (ft ²)					

PRINCIPAL SPILLWAY (if applicable)

Pipe Diameter (in.)		Pipe Length (ft.)		Pipe Inlet Elevation (ft.)		Slope %	
Riser Diameter (in.)		Height of Riser ³ (ft.)		Top of Riser Elevation (ft.)		H _p ⁴ (ft.)	
Type of Base		Type of Trash Rack & Anti-vortex device					

¹ (0.125 X disturbed area in acres)

² (0.075 X disturbed area in acres)

³ Base to top of riser

⁴ Height of water in pool (head) above spillway

EMERGENCY SPILLWAY (if applicable)					
Hp ⁴ (ft.)		Bottom Width (ft.)		Side Slopes (H:V)	
Design Velocity (fps)			Type of Lining		

EXIT CHANNEL (if applicable)					
Slope (%)		Bottom Width (ft.)		Side Slopes (H:V)	
Flow Depth (ft.)		Freeboard (ft.)		Total Depth Exit Channel (ft.)	
Design Velocity (fps)			Type of Lining		

EMBANKMENT (if applicable)			
Top of Embankment Elevation ⁵ (ft.)		Constructed Top of Embankment Elevation ⁶ (ft.)	

⁵ Top of Embankment Elevation = Emergency Spillway Elevation + Hp + Freeboard (1 ft. minimum)

⁶ Constructed Top of Embankment = Top of Embankment Elevation + allowance for settlement (5% minimum)