

Table 1. Soil Stabilization BMP Selection Matrix										
BMP	Purpose	Slope	Drainage Area (Acres)	Level of Maintenance	Estimated Unit Cost	Design Life (Months)	Habitat Quality	Slope Length Restriction	Soils	Other Factors
Bank Stabilization	Surface Protection / Strength			None		Permanent	Low			All structure construction must be performed by a Licensed Professional Engineer.
Buffer Zone	Surface Protection			60% of Installation (Monthly)	From Existing Veg: \$0 From Sod: \$4500-\$48000/Acre: Avg. \$11000	Varies	High			Required. Cannot be used for vehicular traffic or construction activities.
Erosion Control Nets and Mats	Surface Protection	All		60% of Installation (Monthly)	\$1-\$5/ft (20 ft roll): Avg. \$2/ft (20 ft roll)	12	Low			Can be used where design flows may exceed 3.5 ft/s. Manufacturer's directions should be followed when installing.
Filter Strips	Surface Protection	Steep and unstable slopes		60% of Installation (Monthly)	\$50-\$150: Avg. \$100	12	Medium			Do not clear the area within the buffer.
Geotextiles	Surface Protection	Greater than 3:1		Low	N/A	Varies	Low			Can be used for slow growing vegetated areas.

Table 1. Soil Stabilization BMP Selection Matrix

BMP	Purpose	Slope	Drainage Area (Acres)	Level of Maintenance	Estimated Unit Cost	Design Life (Months)	Habitat Quality	Slope Length Restriction	Soils	Other Factors
Mulching	Surface Protection	All slopes. Slopes greater than 2:1 may need a tacking agent.		60% of Installation (Monthly)	Straw Mulch: \$500- \$5000/Acre: Avg. \$1700. Wood Fiber: \$500- \$2300/Acre: Avg. \$1000.	6-8	Low			Organic mulches are not permanent erosion control measures.
Permanent Seeding	Surface Protection					Varies	High			Should be used where topsoil was never stripped.
Riprap	Surface Protection			0% of Capital Costs (Monthly)		Permanent	Low			May need to use in combination with a filter cloth.
Roughening	Surface Protection / Strength	Cut Slope Roughening and Fill Slope Roughening: Greater than 3:1. Roughening Cuts, Fills, and Graded Areas: Less than 3:1.		60% of Installation (Monthly)	\$50-150: Avg. \$101	12	Low			Used in conjunction with permanent seeding. Must consider if the slope was formed by cutting or filling.
Sodding	Surface Protection	All Slopes. If greater than 3:1 slope, sod should be anchored				Varies	Medium			Establishes immediate ground cover.

Table 1. Soil Stabilization BMP Selection Matrix										
BMP	Purpose	Slope	Drainage Area (Acres)	Level of Maintenance	Estimated Unit Cost	Design Life (Months)	Habitat Quality	Slope Length Restriction	Soils	Other Factors
Temporary Seeding	Surface Protection			20% of Capital Costs (Yearly)	\$200-\$1000/Acre: Avg. \$100/Acre	12	Medium			Area must be watered daily. Heavy equipment cannot be used.
Topsoiling	Surface Protection			10% of Capital Costs (Monthly)	\$5-\$8/cy: Avg. \$6/cy	Permanent	Low			Netting, temporary seeding, mulching, or other methods should be used to keep the soil in place.

Table 2. Runoff Control BMP Selection Matrix

BMP	Purpose	Slope	Drainage Area (Acres)	Level of Maintenance	Estimated Unit Cost	Design Life (Months)	Habitat Quality	Slope Length Restriction	Soils	Other Factors
Biofilter, Swales, and Strips	Runoff Diversion	No Steep Slopes	A Few Acres	10% of Installation (Monthly)	\$50-\$150/LF: Avg. \$100/LF	Permanent	Medium		Dry Swale: Made Soil Wet Swale: No Restriction	Do not clear the area within the buffer.
Channel Lining	Runoff Conveyance			0% of Capital Costs (Monthly)		Permanent	Low			Must withstand maximum shear force of channel flow for 2-year, 24-hour flow.
Temporary Diversions, Drains, and Swales	Runoff Diversion	2:1 or less	2 acres per pipe	None		Temporary or Permanent	Low		Dry Swale: Made Soil Wet Swale: No Restriction	Select flow velocity limit based on the soil type and drainage flow pattern.
Temporary Inlet Protection	Inlet / Outlet Stabilization			60% of Installation (Monthly)	\$50-\$150: Avg. \$100	12	Low			Areas with drainage more than 1/2 acre must have a downstream sediment trap or basin.

Table 2. Runoff Control BMP Selection Matrix

BMP	Purpose	Slope	Drainage Area (Acres)	Level of Maintenance	Estimated Unit Cost	Design Life (Months)	Habitat Quality	Slope Length Restriction	Soils	Other Factors
Temporary Outlet Protection	Inlet / Outlet Stabilization	Apron should have a zero slope.		60% of Installation (Monthly)	\$50-\$150: Avg. \$101	12	Low			Use when flow from outlets erodes the immediate downstream reach.
Terracing	Runoff Diversion	Greater than 3:1		Low	Low	Permanent	Low			Use on areas where slopes need to be shortened.

Table 3. Sediment Control BMP Selection Matrix

BMP	Purpose	Slope	Drainage Area (Acres)	Level of Maintenance	Estimated Unit Cost	Design Life (Months)	Habitat Quality	Slope Length Restriction	Soils	Other Factors
Brush or Rock Filters and Continuous Berms	Sediment Retention	Level Ground	Less than 5 acres	None	Low	Permanent	Low			Use for sheet or rill flow.
Check Dams	Sediment Retention		10 acres or less	60% of Installation (Monthly)	\$100/dam	6-12	Low			Not to be used in streams or rivers. Do not use porous materials to construct.
Constructed Wetlands	Sediment Retention	No Steep Slopes	Large areas	3% of Capital Costs (Monthly)	\$0.50/CF of Storage	Permanent	High		"A" Soils May Require Liner	Mosquitoes Possible
Construction Road Stabilization	Mud / Dust Control	Less than 15%		Low	\$1000-\$4000: Avg. \$2000	24	Low			Usage depends highly on the weather and climate conditions.
Dry Detention Ponds	Sediment Retention			3% of Capital Costs (Monthly)	\$0.50/CF of Storage	Permanent	Medium		f ≥ 0.52 Inch/Hour	Can be used for recreation purposes during dry periods.

Table 3. Sediment Control BMP Selection Matrix

BMP	Purpose	Slope	Drainage Area (Acres)	Level of Maintenance	Estimated Unit Cost	Design Life (Months)	Habitat Quality	Slope Length Restriction	Soils	Other Factors
Sand Bag Barrier	Sediment Filtration		5 acres per 100 ft of sand bags	0% of Capital Costs (Monthly)	\$6-\$10/LF: Avg. \$8/LF	3-6	Low			Use when the construction of check dams in a stream is not wanted. Allows undisturbed vegetation.
Sediment Traps	Sediment Retention		5 acres or less	20% of Installation (Monthly)	\$1100/drainage acre	18-24	Low			Should be prepared before beginning construction.
Silt Fence	Sediment Filtration	1:1 Maximum	0.25 acre per 100 ft of silt fence	100% of Installation (Monthly)	\$1-\$8 per LF	6-12	Low	Less than 2%: 100 ft max* 2% to 3%: 75 ft max* 3% to 5%: 75 ft max* 5% to 10%: 50 ft max* 10% to 20%: 25 ft max* Greater than 20%: 15 ft max*		Must be properly installed to be effective.
Stabilized Construction Entrance	Mud / Dust Control	Level Ground		60% of Installation (Monthly)	\$50-150: Avg. \$100	12	Low			Required. Foundation drainage may be required.

Table 3. Sediment Control BMP Selection Matrix										
BMP	Purpose	Slope	Drainage Area (Acres)	Level of Maintenance	Estimated Unit Cost	Design Life (Months)	Habitat Quality	Slope Length Restriction	Soils	Other Factors
Straw Bales	Sediment Filtration		0.25 acre per 100 ft of straw bales	100% of Installation (Yearly)	\$2-\$6/LF: Avg. \$4/LF	6	Low	Less than 2%: 100 ft max* 2% to 5%: 75 ft max* 5% to 10%: 50 ft max* 10% to 20%: 25 ft max* Greater than 20%: 15 ft max*		Not as effective as other methods.
Temporary Sediment/ Detention Basin	Mud / Dust Control		5 acres or more	60% of Installation (Monthly)	\$50-150: Avg. \$100	12	Low			Suitable for most sites.
Tire Washing Facility	Mud / Dust Control	Use on Stabilized Construction Entrance		Low	\$1000-\$5000: Avg. \$3000	12	Low			Typically for large construction sites.
Wet Detention Ponds	Sediment Retention			3% of Capital Costs (Monthly)	\$0.50/CF of Storage	Permanent	High		"A" Soils May Require Pond Liner "B" Soils May Require Testing	Mosquitoes Possible

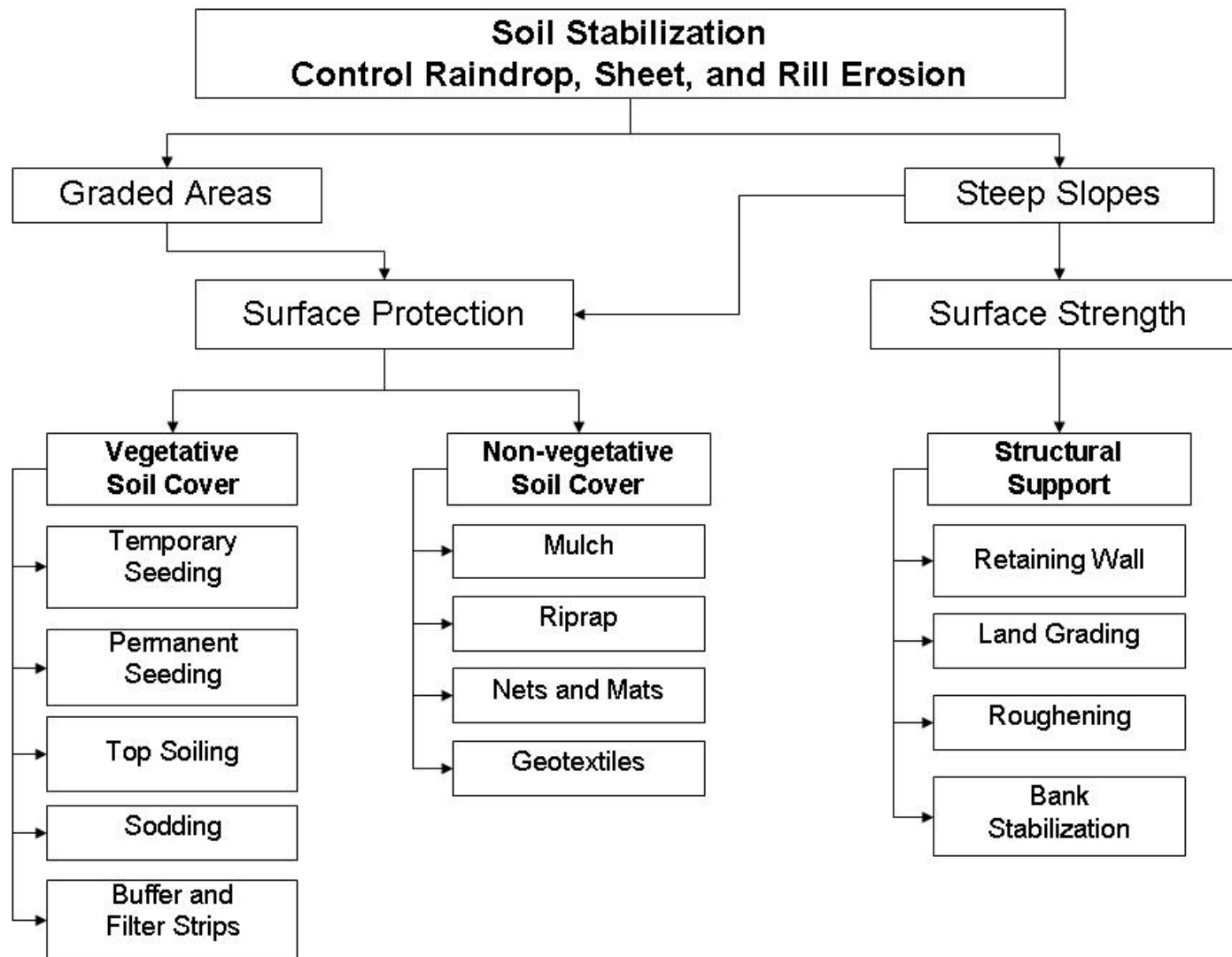


Figure 1. Soil Stabilization BMPs

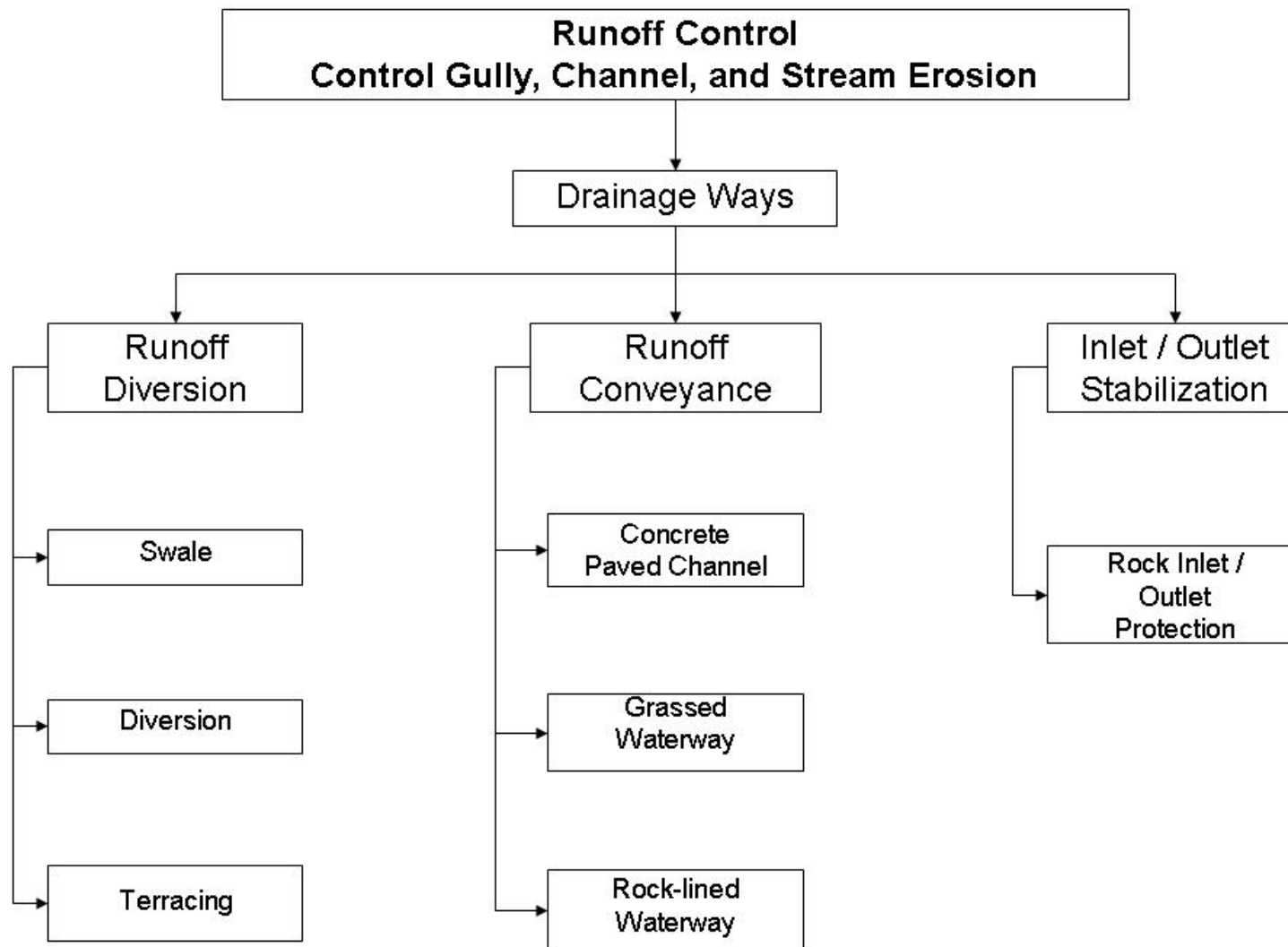


Figure 2. Runoff Control BMPs

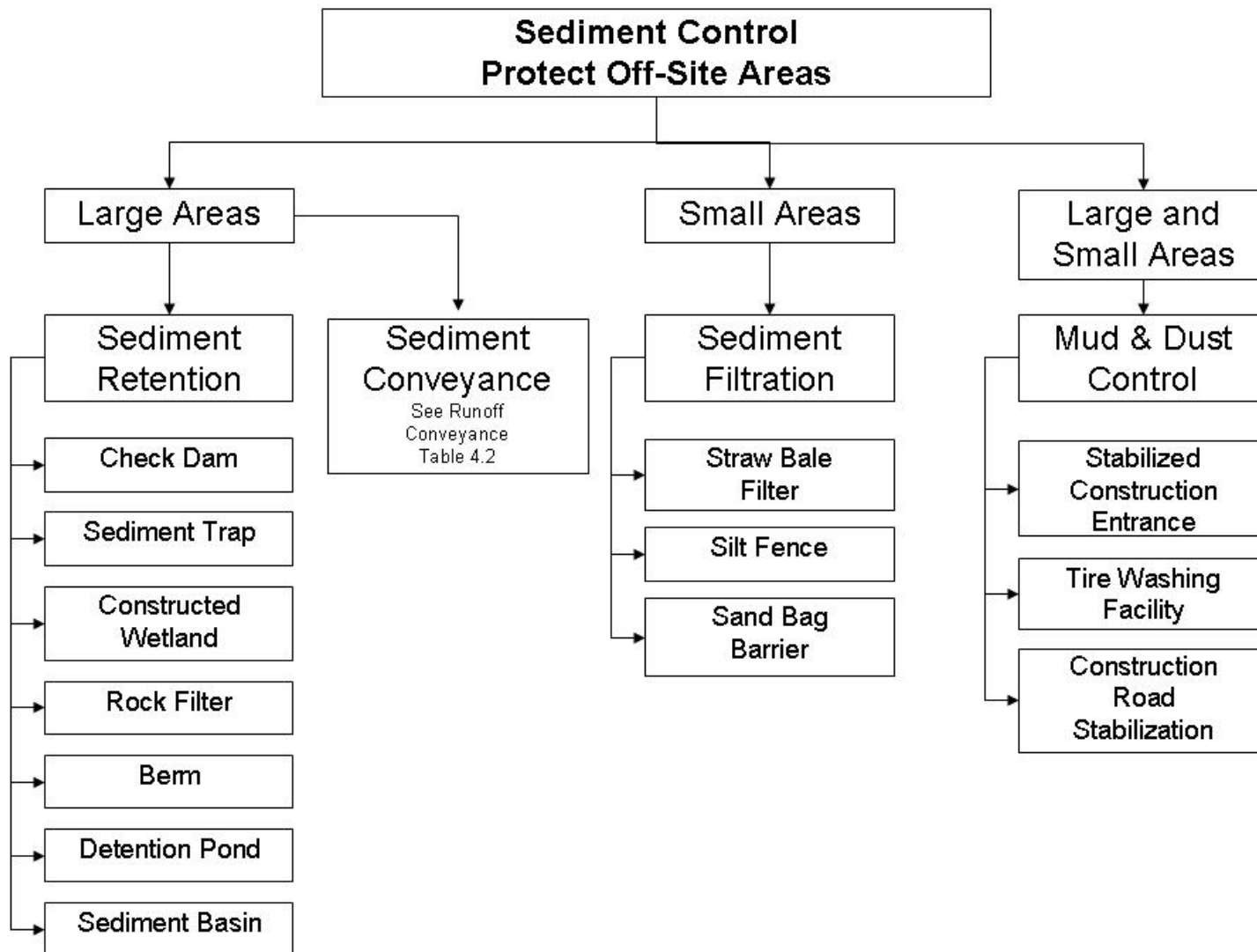


Figure 3. Sediment Control BMPs