




BMP Section and Design

Biodegradable Erosion Control Log

Construction stormwater Best Management Practice must be installed, inspected, and removed in accordance with specific manufacturer specifications, where applicable, and the Construction General Permit (TXR 150000).

	<p>DESCRIPTION</p> <p>Biodegradable Erosion Control Logs (ECLs) are long flexible logs comprised of a core material that is biodegradable, or recyclable, wrapped in a biodegradable containment mesh. ECLs intercept sediment from sheet flow adjacent to various structures, can act as velocity dissipation devices, and can serve as a perimeter sediment barrier control.</p>		
<p>TYPES/ CONFIGURATIONS</p>			
<p>Erosion Control Log Dam</p>	<p>Erosion Control Logs on Slopes</p>		
<p>Erosion Control Log at Back of Curb</p>	<p>Erosion Control Log at Drop Inlet</p>		
<p>Erosion Log at Edge of Right of Way</p>	<p>Erosion Control Log at Curb Inlet</p>		
<p>Erosion Control Log at Curb and Grade Inlet</p>			
<p>APPLICATION</p>			
<p>Biodegradable Erosion Control Logs are used to slow flow and act as sediment barriers. Control logs should be used for the following:</p> <table border="0" style="width: 100%;"> <tr> <td style="vertical-align: top; width: 50%;"> <ul style="list-style-type: none"> • Perimeter protection • Slope protection • Stockpile controls • Curb and grade inlet protection <p style="text-align: center;">Advantages</p> <ul style="list-style-type: none"> • Able to treat sheet flows over short distances • Able to provide perimeter control where other BMPs are not suitable due to soil type or paved surfaces • Easy to install • Can be used on steep slopes </td> <td style="vertical-align: top; width: 50%;"> <ul style="list-style-type: none"> • Sediment traps • Sediment barriers • Drainage ditch dam • Dewatering activities <p style="text-align: center;">Disadvantages</p> <ul style="list-style-type: none"> • Difficult to remove when wet or filled with sediment • Limited drainage area for sediment capture • Additional controls may be needed to remove fine soils from runoff. </td> </tr> </table>		<ul style="list-style-type: none"> • Perimeter protection • Slope protection • Stockpile controls • Curb and grade inlet protection <p style="text-align: center;">Advantages</p> <ul style="list-style-type: none"> • Able to treat sheet flows over short distances • Able to provide perimeter control where other BMPs are not suitable due to soil type or paved surfaces • Easy to install • Can be used on steep slopes 	<ul style="list-style-type: none"> • Sediment traps • Sediment barriers • Drainage ditch dam • Dewatering activities <p style="text-align: center;">Disadvantages</p> <ul style="list-style-type: none"> • Difficult to remove when wet or filled with sediment • Limited drainage area for sediment capture • Additional controls may be needed to remove fine soils from runoff.
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<p>DESIGN CRITERIA</p>			
<ol style="list-style-type: none"> 1. The drainage area for a log sediment trap should not exceed 5 acres 2. The trap capacity should be 1800 CF/acre (0.5" over the drainage area). 3. Space logs a minimum of 500 feet on center when used in drainage ditches (dam). 4. Use logs immediately preceding ditch inlets (inlet protection). 	<ol style="list-style-type: none"> 5. Logs used for inlet protection must not impede vehicle traffic or flood the roadway. 6. Ensure logs used for slope protection are spaced according to the diameter and slope (See Sheet 2 of 3 in EC (9)-16). 7. Use logs before drainage leaves the right-of-way or construction site (perimeter control). 8. Use logs to control sediment before drainage enters a water course 		
<p>REFERENCES</p>			
<p>TXDOT Temporary Erosion, Sediment and Water Pollution Control Measures: Erosion Control Log detail sheet: EC (9) – 16 TXDOT Temporary Erosion, Sedimentation, and Environmental Controls: Item 506 (Sections 2.10 & 4.4.9)</p>			