

Appendix A – Outlet Protection Form

OUTLET PROTECTION																			
Project No.: _____ Town: _____ Route: _____	Designed By: _____ Date: _____ Checked By: _____ Date: _____ Station: _____																		
1. Assess the erosion potential at the outlet and other critical site factors																			
Describe the conditions at the outlet location: _____ _____ _____ _____ _____ _____ <input type="checkbox"/> No well-defined channel <input type="checkbox"/> Well-defined channel	<div style="border: 1px solid black; padding: 10px; text-align: center;"> Sketch </div>																		
2. Determine the tailwater (TW) conditions at the outlet																			
TW depth: _____ TW elevation: _____ TW computational method: _____ Channel bed elevation: _____ Estimated velocity in channel: _____																			
3. Calculate and evaluate the outlet velocity for the design discharge																			
Design Discharge: _____ Design Frequency: _____ Outlet Pipe Size: _____ Type: _____ Length: _____ Slope: _____ Outlet Invert Elevation: _____ Outlet Velocity at design discharge: _____ Velocity computational method: _____																			
4. Select the type of outlet protection																			
<div style="border: 1px solid black; padding: 5px;"> <input type="checkbox"/> Riprap Apron (See Figures 11-13 & 11-14) Type _____ (A,B,C) Riprap type: _____ Length (L_a): _____ Width (W₁): _____ Width (W₂): _____ Width-Type C (W₃): _____ </div>	<div style="border: 1px solid black; padding: 5px;"> <input type="checkbox"/> Preformed Scour Hole (See Figure 11-15) <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center; border-bottom: 1px solid black;">Type 1</th> <th style="text-align: center; border-bottom: 1px solid black;">Type 2</th> </tr> </thead> <tbody> <tr> <td>d₅₀</td> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> </tr> <tr> <td>F</td> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> </tr> <tr> <td>C</td> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> </tr> <tr> <td>B</td> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> </tr> <tr> <td>S_p</td> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> </tr> </tbody> </table> Proposed Type: _____ Riprap Type: _____ </div>		Type 1	Type 2	d ₅₀	_____	_____	F	_____	_____	C	_____	_____	B	_____	_____	S _p	_____	_____
	Type 1	Type 2																	
d ₅₀	_____	_____																	
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