

Appendix D—Hydraulic Structure Initial Site Examination Form

HYDRAULIC STRUCTURE INITIAL SITE EXAMINATION FORM (DATA SHEET FOR FORDS, BRIDGES, AND CULVERTS) (INCLUDE SITE SURVEY, LONGITUDINAL PROFILE, AND CROSS-SECTIONS)			
FOREST		ROAD (TRAIL) NAME	
STRUCTURE NAME		STREAM NAME	
STRUCTURE NUMBER	LOCATION		
	SECTION	TOWNSHIP	RANGE
A. HYDROLOGIC & HYDRAULIC DATA			
1. SHOW ON A 15 MINUTE TOPOGRAPHIC MAP DRAINAGE AREA		2. NAME OF CLOSEST GAGING STATION DISTANCE MILES	
3A. MANNING'S ROUGHNESS COEFFICIENT (N):		500' UPSTREAM:	3B. AVERAGE STREAMBED SLOPE 500' DOWNSTREAM:
4. DESCRIBE CHARACTER OF STREAM BED MATERIAL AND STREAM BANKS WITHIN THE 1000-FOOT AREA:			
5A. AMOUNT OF DEBRIS IN CHANNEL		5B. TYPE OF DEBRIS	
B. WATER ELEVATIONS			
6A. DATE AND FLOW DEPTH AT TIME OF SURVEY:	6B. EST. BASE FLOW DEPTH OCCURS	MONTH	6C. EST. EXTREME HIGH WATER DEPTH (HOW DETERMINED ?)
6D. CAUSE AND SEASON OF FLOODS:			
B. OTHER CHANNEL CHARACTERISTICS			
1. NOTE EVIDENCE OF INSTABILITY OF BANKS OR SCOUR			
2A. STRAIGHT CHANNEL, OR NOTE DEGREE OF SINUOUSITY		2B. HIGH FLOW ANGLE OF APPROACH (PARALLEL OR IMPINGING?)	
3. CHANNEL STABILITY (AGGRADATION, DOWNCUTTING, LATERAL CHANNEL MIGRATION, ETC)			
4. CHANNEL CLASSIFICATION (ROSGEN OR OTHER)			
5. CHANNEL ENTRENCHMENT (RATIO = FLOOD-PRONE / BANKFULL WIDTH)			
6. UPSTREAM / DOWNSTREAM STRUCTURES AFFECTING SITE (DAMS, BRIDGES, ETC.)			
7. OTHER SITE ASSESSMENT FACTORS			
C. FOUNDATION CONDITIONS			
1. CHARACTER OF SURFACE OR LOCAL MATERIALS:			
2. ESTIMATED DEPTH TO BEDROCK FEET	2A. BEDROCK TYPE & CONDITION		
3. ANY SPECIAL FOUNDATION CONDITIONS? INVESTIGATION NEEDED? EXPLAIN:			
D. EXISTING STRUCTURE			
1. TYPE OF EXISTING STRUCTURE	1A. NO & LENGTH OF SPANS	1B. TYPE OF CULVERT	1C. SIZE
2. WATERWAY OPENING FEET WIDE OR SQUARE FEET		2A. WATERWAY ADEQUATE? <input type="checkbox"/> YES <input type="checkbox"/> NO	
3. STRUCTURE AFFECTED BY: DEBRIS <input type="checkbox"/> ICE <input type="checkbox"/> DAMAGE <input type="checkbox"/> SCOUR <input type="checkbox"/>		4. DOES STRUCTURE CONSTRICT THE NATURAL CHANNEL: YES <input type="checkbox"/> NO <input type="checkbox"/>	
5. CONDITION OF EXISTING STRUCTURE:			
E. PROPOSED STRUCTURE			
1. BRIDGE OR LOW-WATER CROSSING TYPE			1A. LOADING (JUSTIFY IF OTHER THEN HS 20)

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1B. WIDTH	1C. SUBSTRUCTURE OR SPECIAL NEEDS		
2. TYPE OF CULVERT			2A. SIZE
2B. CULVERT DESIGN ISSUES?			
2C. CORROSION OR ABRASION CONCERNS?		2D. TYPE OF FILL MATERIAL TO BE USED	
F. MISCELLANEOUS DATA			
1. TIME AND DURATION OF CONSTRUCTION SEASON		2. RIPRAP IS AVAILABLE YES <input type="checkbox"/> NO <input type="checkbox"/>	2A. DISTANCE FROM SITE AT _____ MILES
2B. DESCRIPTION OF RIPRAP MATERIAL			
3. TRAFFIC CONTROL AND SAFETY NEEDS			
4. ROADWAY ALIGNMENT AND GRADE (ADEQUATE?)			
5. CHANNEL OR STRUCTURE ALIGNMENT CHANGES RECOMMENDED (SHOW ON COPY OF SITE PLAN)			
6. ARE DIKES OR BANK PROTECTION REQUIRED TO CONTROL FLOW (SHOW ON COPY OF SITE PLAN)			
7. DESCRIPTION OF ON-SITE CONSTRUCTION MATERIAL TO BE USED			
8. STORAGE AND/OR WASTE AREAS AVAILABLE FOR CONSTRUCTION (LOCATION, SIZE, AND DESCRIPTION)			
9. WHAT IS THE MAXIMUM LENGTH OF GIRDERS THAT CAN BE HAULED TO THE SITE? FEET			
10. METHOD OF CONSTRUCTION CONTRACT <input type="checkbox"/>		FORCE ACCOUNT <input type="checkbox"/>	TIMBER PURCHASER <input type="checkbox"/>
11. OTHER REMARKS AND SPECIAL RECOMMENDATIONS			
G. FISH AND OTHER WILDLIFE PASSAGE CONSIDERATIONS			
1A. IS FISH PASSAGE REQUIRED? YES <input type="checkbox"/> NO <input type="checkbox"/>	1B. IF YES, WHAT SPECIES AND LIFE STAGES?		2. IS PASSAGE FOR OTHER SPECIES REQUIRED? (TERRESTRIAL, CRAWLING, SWIMMING) YES <input type="checkbox"/> NO <input type="checkbox"/> WHICH?
3. SPECIAL/IMPORTANT CONSIDERATIONS FOR HABITAT PROTECTION?			
4. FOREST BIOLOGIST RECOMMENDATIONS			
PREPARED BY: _____		DATE _____	FOREST ENGINEER REVIEW: _____
			DATE _____
FIELD SITE SKETCH, LONGITUDINAL PROFILE, AND CROSS-SECTIONS			

Adapted From: Form R5-7700-71