

Culvert Condition Scoring System – August 27, 2019

Two “scores” will be assigned to each crossing:

1. Culverts with performance problems will be flagged.
2. A condition score (0.0-1.0) is calculated for each crossing, as follows:
 - a) For each culvert, assign a score for each of the three variables below (V1, V2, V3) using data from the Condition Assessment Form.
 - b) The minimum score resulting from V1, V2, or V3 is the overall condition score for each culvert. The score will range from 0 (most critical condition) to 1 (good condition).

PLUS

If any Section is marked “Unknown” then add “not fully assessed” to the score unless the score is 0.0. For example: “0.7-not fully assessed” or “0.3-not fully assessed” but not “0-not fully assessed”

- c) For multiple culvert crossings, the overall condition score for the crossing is the lowest condition score among the culverts that make up the crossing.

V1 Structural Deficiency – Highly Critical

Variables marked “Critical”	Score
Any one of the following	0.0
Cross-Section Deformation	Inlet or outlet
Structural Integrity of Barrel	Inlet or outlet
Footings	Inlet or outlet
Level of Blockage	Inlet or outlet

V2 Structural Deficiency – Critical

Any three or more of the following	0.0
Any two of the following	0.1
Any one of the following	0.2
Variables marked “Critical”	Score
Buoyancy or Crushing	Inlet or outlet or both counts as 1
Invert Deterioration	Inlet or outlet or both counts as 1
Joints and Seams	Inlet or outlet or both counts as 1
Longitudinal Alignment	Inlet or outlet or both counts as 1
Headwall/Wingwalls	Inlet or outlet or both counts as 1
Flared End Section	Inlet or outlet or both counts as 1
Apron/Scour Protection	Outlet
Armoring	Inlet or outlet or both counts as 1
Embankment Piping	Inlet or outlet or both counts as 1
Variables marked “Poor”	
Cross-Section Deformation	Inlet or outlet or both counts as 1
Structural Integrity of Barrel	Inlet or outlet or both counts as 1
Footings	Inlet or outlet or both counts as 1
Level of Blockage	Inlet or outlet or both counts as 1

V3 Structural Deficiency – Poor

Variables marked "Poor"	Score
For each of the following identified as "Poor"	0.1 pt. deduction from 1.0 down to a minimum score of 0.3
Buoyancy or Crushing	Inlet or outlet or both counts as 1
Invert Deterioration	Inlet or outlet or both counts as 1
Joints and Seams	Inlet or outlet or both counts as 1
Longitudinal Alignment	Inlet or outlet or both counts as 1
Headwall/Wingwalls	Inlet or outlet or both counts as 1
Flared End Section	Inlet or outlet or both counts as 1
Apron/Scour Protection	Outlet
Armoring	Inlet or outlet or both counts as 1
Embankment Piping	Inlet or outlet or both counts as 1