

## APPENDIX C – DEBRIS CONTROL STRUCTURES

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### [FHWA Hydraulics Engineering Circular #9 Debris-Control Structures](#)

This circular provides information on debris accumulation and the various debris control countermeasures available for culvert and bridge structures. This circular presents various problems associated with debris accumulation at culvert and bridge structures and provides general guidelines for analyzing and modeling debris accumulation on a bridge structure to determine the impacts that the debris would have on the water surface profile through the bridge structure and the hydraulic loading on the structure. Various types of debris countermeasures for culvert and bridge structures are discussed within this circular. General criteria for selection of these countermeasures and general design guidelines for some of the structural measures are also included in this FHWA manual.

Note: Project environmental personnel should be contacted if it is proposed to install these structures when fish passage is a concern. They can tell you if they are allowed and if there are any environmental concerns.

The following web address is the Federal Highway Administration's Publications site which has the Circular "Debris Control Structures, HEC 9" (latest edition).

[http://www.fhwa.dot.gov/engineering/hydraulics/library\\_listing.cfm](http://www.fhwa.dot.gov/engineering/hydraulics/library_listing.cfm)