Driscoll Method for Assessing Highway Stormwater Impacts

POLLUTANT LOADINGS
AND IMPACTS FROM
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Volume I:
Design Procedure

Photo Source: Federal Highway Administration

general
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One approach to assessing highway stormwater impacts on water quality is called the Driscoll Method. This model uses past rainfall patterns to compute probabilities for the concentration of pollutants likely to occur in a stream or river.

From these probabilities, the model determines worst-case pollutant concentrations that would occur only once in three years. These can be compared to EPA's 3-year recurrence criteria for contaminant levels that are considered toxic to aquatic life. Copper, lead and zinc are examples of vehicle-related heavy metals for which the model can predict project impacts.

Guidance: Pollutant Loadings and Impacts from Highway Stormwater Runoff (FHWA-RD-88-006-009)

Wetlands Compensatory Mitigation

The Colorado Department of Transportation sometimes undertakes construction activities that adversely affect wetlands. Federal regulations require that impacts to wetlands be avoided if possible. Unavoidable impacts must be minimized, and any remaining impacts must be mitigated. The type of mitigation required depends on local conditions and is negotiated with the U.S. Army Corps of Engineers.

The four basic approaches are: (1) the restoration of a previously existing wetland or other aquatic site; (2) the enhancement of an existing aquatic
site's functions; (3) the establishment (i.e., creation) of a new aquatic site; and (4)
the preservation of an existing aquatic site.

Regulations: 40 CFR 230, Compensatory Mitigation for Losses of Aquatic Resources

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