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MASTEP Technology Review

Technology Name: Porous Pavement Overlay

Studies Reviewed: Barrett, M.E., P. Kearfott, J.F. Malina Jr. 2006. Stormwater Quality Benefits of a Porous Friction Course and Its Effect on Pollutant Removal by Roadside Shoulders. Water Environ. Res. 78:2177-2185.

Date: September 23, 2008

Reviewers: Sarah Titus

Rating: 3

Brief rationale for rating:
This technology is a porous pavement overlay on top of a traditional asphalt pavement highway. Nutrients and metals were measured at the roadside and 8m from the road for both traditional and porous overlay pavement types. Use of a certified lab, removal efficiency calculation and statistical analysis were all typical for a study of this type. However there was no discussion of a QAPP, quality control, or particle size distribution as would be necessary to earn a higher MASTEP rating. They also sampled a relatively small area of highway (<20m^2) and provided very little description of the overlay technology itself.

Other comments:

- Study was conducted over a relatively small sample area – 20 square meters of pavement.
- The nature of this study was not conducive to a comparison of influent vs. effluent pollutant levels, as is common with studies of many stormwater BMPs. Rather, it compared effluent at two separate sites – one with and one without the porous overlay.