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MASTEP Technology Review

Technology Name: Jordan Cove Watershed Project

Studies Reviewed: Clausen, John C. 2007. Jordan Cove Watershed Project Final Report. Dept of Natural Resources Management and Engineering, College of Agriculture and Natural Resources. University of Connecticut, Storrs.

Dietz, M.E., and Clausen, J.C. 2008. Stormwater Runoff and Export Changes with Development in a Traditional and Low Impact Subdivision. Journal of Environmental Management 87:(2008) 560–566.

Gilbert, J.K. and J.C. Clausen. 2006. Stormwater runoff quality and quantity from asphalt, paver, and crushed stone driveways in Connecticut. *Water Research* 40:826-832.

Date: May 7, 2008

Reviewer: Sarah Titus

Rating: 2

Brief rationale for rating:
Jordan Cove Watershed Project was a well run study by the University of Connecticut as part of EPA Section 319 National Monitoring Program grant. Using a paired watershed approach they collected about 10 years of data at three different sites (control, traditional and BMP) during calibration, construction and post-construction phases. This project had a QAPP in place and plenty of samples were collected, representing enough of the rainfall to generate a solid data set for analysis.

This study is unique in that it incorporates many different LID approaches into one development. Best Management Practices (BMP's) were used throughout to try to maintain pre-development hydrologic conditions during the construction and post-construction periods. Since the monitoring was done at the outlet of each development, it is difficult to determine the extent to which individual LID's affected the pollutant concentrations and export. Instead the traditional and BMP watersheds are compared to the control during and after construction. In the driveway study separate samples were taken of overland flow from the different driveway types and analyzed either weekly or monthly in the case of metals. Even in the driveway study, outlet only was monitored so driveway types were compared to one another instead of an inlet/outlet scenario.

TARP Requirements Not Met:
- QC data not reported
- Only the outlet of each development was monitored
- PSD not discussed
- Laboratory not reported to be certified