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Massachusetts Stormwater
Evaluation Project

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MASTEP Technology Review

Technology Name: V2B1, by Environment 21 LLC

Studies Reviewed: Performance Assessment of the Environment21 V2B1 Model 4 for Removing Suspended Sediments from Stormwater. Fyten et al, November 2008

Performance Assessment of Underground Stormwater Treatment Devices.
Wilson et al, July 1007.

University of Minnesota St. Anthony Falls Laboratory
Supplemental Results report, January, 2008.

Date: February 12, 2009

Reviewer: Jerry Schoen

Rating: 2

Brief rationale for rating:

This rating and the comments below are based primarily on the Fyten 2008 laboratory study. This study closely followed NJDEP recommendations for laboratory studies, with appropriate flow rates, influent sediment particle sizes and concentrations. This study was reasonably well conducted.

TARP Requirements Not Met*:

- No mention of quality control project plan.
- Little quality control data discussion.
- No scour testing reported, although this data apparently exists.

Other Comments:

- Five flow rates were tested: 25%, 50%, 75%, 100% and 125% of design.
- Influent sediment concentrations of 100, 200 and 300 mg/l were tested.
- Sediment removal efficiency was evaluated by a modified mass balance approach: all influent and effluent water and sediment was captured, weighed and compared.
- Sediment efficiency, according to the NJDEP recommended weighted calculation method, was 65%.

* Criteria also based on NJDEP laboratory testing guidelines.