



UNIVERSITY OF MASSACHUSETTS
AT AMHERST

Water Resources Research Center
Blaisdell House, UMass
310 Hicks Way
Amherst, MA 01003

Massachusetts Stormwater
Evaluation Project

(413) 545-5532
(413) 545-2304 FAX
www.mastep.net

MASTEP Technology Review

Technology Name: Rain Garden Performance in Connecticut

Studies Reviewed: Dietz and Clausen 2005. A Field Evaluation of Rain Garden Flow and Pollutant Treatment. *Water, Air and Soil Pollution* 167:123-138.

Dietz and Clausen. 2006. Saturation to Improve Pollutant Retention in a Rain Garden. *Environ. Sci. Technol.* 40:1335-1340.

Date: May, 21, 2008

Reviewer: Sarah Titus

Rating: 2

Brief rationale for rating: Overall, these studies were well designed and met TARP criteria in several ways. They used the method described in the Prince George's County MD design manual to construct the gardens. Weekly and monthly composites collected during the two year study provided enough samples for statistical analysis and ER was used to calculate removal efficiency for the target pollutants. However there was insufficient quality control data and no documentation of a QAPP. Rainfall amounts sampled, PSD, loads and TSS data were all absent. There was no mention of the laboratory being certified.

TARP Requirements Not Met:

- No documentation of a Quality Assurance Project Plan
- Quality control data not presented
- TSS not measured
- PSD not discussed
- Loads not calculated
- Laboratory is not certified
- Total rainfall sampled, amount of rainfall sampled per event not specified