



USEPA WORKSHOP
on
System for Urban Stormwater Treatment and
Analysis INtegration (*SUSTAIN*) – A Decision Support
Framework for Placement of BMPs in Urban
Watersheds to Protect Source Waters and Meet
Water Quality Goals

February 12, 2009
DuPage County Auditorium, Wheaton, Illinois

Background

To assist stormwater management professionals in planning for BMP/LID implementation for flow and pollution control, the U.S. Environmental Protection Agency (USEPA) initiated a research project in 2003, with a contract to Tetra Tech, Inc., to develop a decision support system for selection and placement of BMPs/LIDs at strategic locations in urban watersheds. This effort has led to the development of *SUSTAIN* (System for Urban Stormwater Treatment and Analysis INtegration). *SUSTAIN* has seven key components: framework manager, ArcGIS interface, watershed model, BMP model, optimization model, post-processor, and Microsoft Access database. They are integrated under a common ArcGIS platform. This decision support system is designed to be used by watershed and stormwater practitioners to develop, evaluate, and select optimal BMP combinations at various watershed scales based on cost and effectiveness.

SUSTAIN can help to answer the questions such as:

- How effective are BMPs in reducing runoff and pollutant loadings?
- What are the most cost effective solutions meeting the water quantity and quality objectives?
- Where, what type, and how big the BMPs should be?

Workshop Information

This workshop will provide:

1. an overview of *SUSTAIN* and design process
2. descriptions of the major system components
3. demonstration of *SUSTAIN* operations and case studies
4. future efforts

WHEN: Thursday, February 12, 2009
9:00 am – 4:30 pm

LOCATION: The Jack T. Knuepfer DuPage County Administration Building
421 North County Farm Road, Wheaton, IL 60187.

(In the Auditorium located on the first floor at the north end of the Building)
County Website and Direction: www.dupageco.org
http://www.dupageco.org/generic.cfm?doc_id=120

Who Should Attend: Watershed managers, planners, regulators, and stormwater practitioners

Instructors Leslie Shoemaker, Jenny Zhen, John Riverson, Sabu Paul, and Khalid Alvi
Tetra Tech, Inc.

Registration Information This workshop is free of charge. Refreshments are provided. Lunch is not included.

If you would like to register for the February 12, 2009 Workshop on System for Urban Stormwater Treatment and Analysis INtegration (*SUSTAIN*), please use the Workshop Registration Form attached to this announcement. Fax it to "SUSTAIN Workshop Coordinator" @ 703-385-6007 or e-mail it to SUSTAIN@tetrattech.com.

A confirmation letter will be sent upon successful registration. Onsite registrations are NOT accepted.

Due to space constraints, please register early.



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System for Urban Stormwater Treatment and Analysis INtegration (*SUSTAIN*)

Agenda

09:00 – 09:10	Introduction
09:10 – 9:40	Framework Overview and Design Processes
9:40 – 10:30	Framework Design ArcGIS Major Framework Components BMP Siting Tool
10:30 – 10:45	Break
10:45 – 11:45	Simulation Modules Land Simulation BMP Simulation Conveyance Simulation
11:45 – 12:30	Optimization and Cost Modules Optimization Formulation and Algorithms Cost Database and BMP Cost Calculation
12:30 – 01:30	Lunch
01:30 – 03:00	<i>SUSTAIN</i> Operation Demonstration BMP Siting Tool BMP Representation Aggregated BMPs Representation Multi-Tier Optimization
03:00 – 03:15	Break
03:15 – 04:15	Case Study Demonstration
04:15– 04:30	Future Efforts