



REGION 9, LOS ANGELES SECTION
SAN BERNARDINO & RIVERSIDE COUNTIES BRANCH

Stormwater Committee and Inland Empire APWA



Low Impact Development Seminar

Moderators: Stormwater Committee's Members

October 14, 2009

(MORNING SESSION)

- 8:00-8:30 Registration / Networking
- 8:30-8:45 Welcome / Introductions / Purpose of Workshop
- Speaker: Bill Flores, ASCE Rep / Will Harris, Filterra Bioretention System
- 8:45 -9:45 A Comprehensive Overview
- Speaker: Larry Coffman
 - Outline:
 1. What is LID
 2. Limitations of Conventional Approaches (Pipe and Pond)
 3. LID Basic Principles and Practices
 - a. New Development
 - b. Urban Retrofit
- 9:45 –10:00 Break / Networking
- 10:00 -11:00 LID BMP
- Speakers: Bob Cullen, Riverside County Flood Control
 - Outline:
 1. The County's proposed BMP prioritization scheme and public maintenance mechanism (theory).
 2. The District's LID BMP Design Guidance.
 3. The District's LID BMP Testing and Demonstration Facility.
- 11:00 – 12 noon General Permit Requirements and the SMC LID Manual
- Speaker: Matt Yeager, San Bernardino Permit Manager
- 12 noon – 1:00 pm Lunch / Networking / Announcements

ASCE SB/Riv Branch Stormwater Committee and Inland Empire APWA

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(AFTERNOON SESSION)

- 1:00 pm – 2:00 pm LID Facility Design
- Speaker: Eric Mosolgo, Brown & Caldwell
 - Outline:
 1. Design Considerations
 - a. Urban Retrofit Challenges.
 - b. Arid Climate Design Adjustment
 - c. Hydromodification Mitigation with LID
 2. Modeling Approaches and Summary of Existing Software
 - a. Single Event Modeling
 - b. Continuous Simulation Modeling
 3. Hydrological and Hydraulic Analysis
 - a. Sample Single-Event Model Example
 - b. Sample Continuous Simulation Model Example
 4. Maintenance and Monitoring Requirements
- 2:00 – 2:15 Break / Networking
- 2:15 - 3:15 Bioretention / Rain Gardens & Other LID Practices – Larry Coffman
- Speaker: Larry Coffman
 - Outline:
 1. Design, Construction and Maintenance
 2. Pollutant Removal / Effectiveness / Costs / Maintenance
 3. Public Acceptance
- 3:15 – 4:00 LID BMP Tools and Case Studies
- Speaker: Will Harris, filterra and Daniel Apt, RBF
 - Outline
 1. Green Roofs, Swales, Permeable Pavers, Detention / Retention Basins
 2. Examples; Pollutant removal, costs, maintenance acceptance
- 4:00 – 4:30 Panel of Q & A
- Audience Questions
- 4:30 Adjournment