

Low Impact Development Guidance and Training for Southern California

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LGC Water Workshop



LID Project for Southern California

- What is LID?
- Why This Project?
- Project Partners
- Project Tasks
- Project Status
- How Does it Further the “Greening” Goals?

Population Increase



Urban Growth



Impacts



What is LID?

A surreal image of a house on a cloud with a ladder leading up to it, set against a stormy sky with a lightning bolt.

- **Developed “Back East”**
 - Prince George’s County MD
- **A Site Planning Strategy that:**
 - Matches post development site hydrology with predevelopment site hydrology, or
 - Targets watershed resource protection objectives and regulatory requirements

What is LID?

■ 5-step Process

- Preserve Sensitive or Critical Hydrologic Features
- Maintain Runoff Flow Timing
- Minimize Site Development Impacts
- Integrate Distributed BMPs
- Public Outreach for Pollution Prevention and BMP Maintenance

Qualitative



Why This Project?

- **Municipal Stormwater Permit Requirements for New Development and Redevelopment**
 - **Local Jurisdictions:**
 - **General Plan “Principles and Policies” for Stormwater (LID)**
 - **“SUSMPs” and WQMPs**
 - **“Site Design” BMPs (LID)**



Why This Project?

**Clean
Water Act /
USEPA**

**NPDES
Authority**

**State Water
Board / Regional
Boards**

**MS4
PERMITS**

LID Implementation

**Development
Projects**

**Project
Approvals**

**Local
Jurisdictions**



Collaborative Process



Project Partners

- **So Cal Stormwater Monitoring Coalition (SMC)**
 - 6 So Cal Counties
 - Cities of Long Beach and LA
 - 3 Regional Water Boards
 - State Water Board
 - USEPA
 - Caltrans
- **CASQA**
- **LID Center**
- **Stantec, CSU WRI, Mactec**



SMC

- Started in 2000
- Collaborative with Regulators and Regulated Agencies
- SCCWRP as facilitator and technical resource
- Developed LID Project in 2004
 - Addresses several MS4 Permit needs



CASQA

- Statewide Organization of Stormwater Professionals
- Works with State Water Board on Regulatory Issues
- Developed and Maintains Stormwater BMP Manuals
 - LID Guidance will be incorporated into the CASQA Manuals
- Conducts Training



Project Funding

- **State Consolidated Grant (\$600K)**
 - San Bernardino County applied for grant on Behalf of the SMC and manages project
- **SMC Funding (grant match \$)**
- **CASQA (match \$)**



Project Tasks

- **Compile Background Information**
- **Conduct “Interim” Training Workshops**
- **Conduct Field Monitoring**
- **Develop Technical Manual**
- **Conduct Final Training Workshops**



Interim Training Workshops

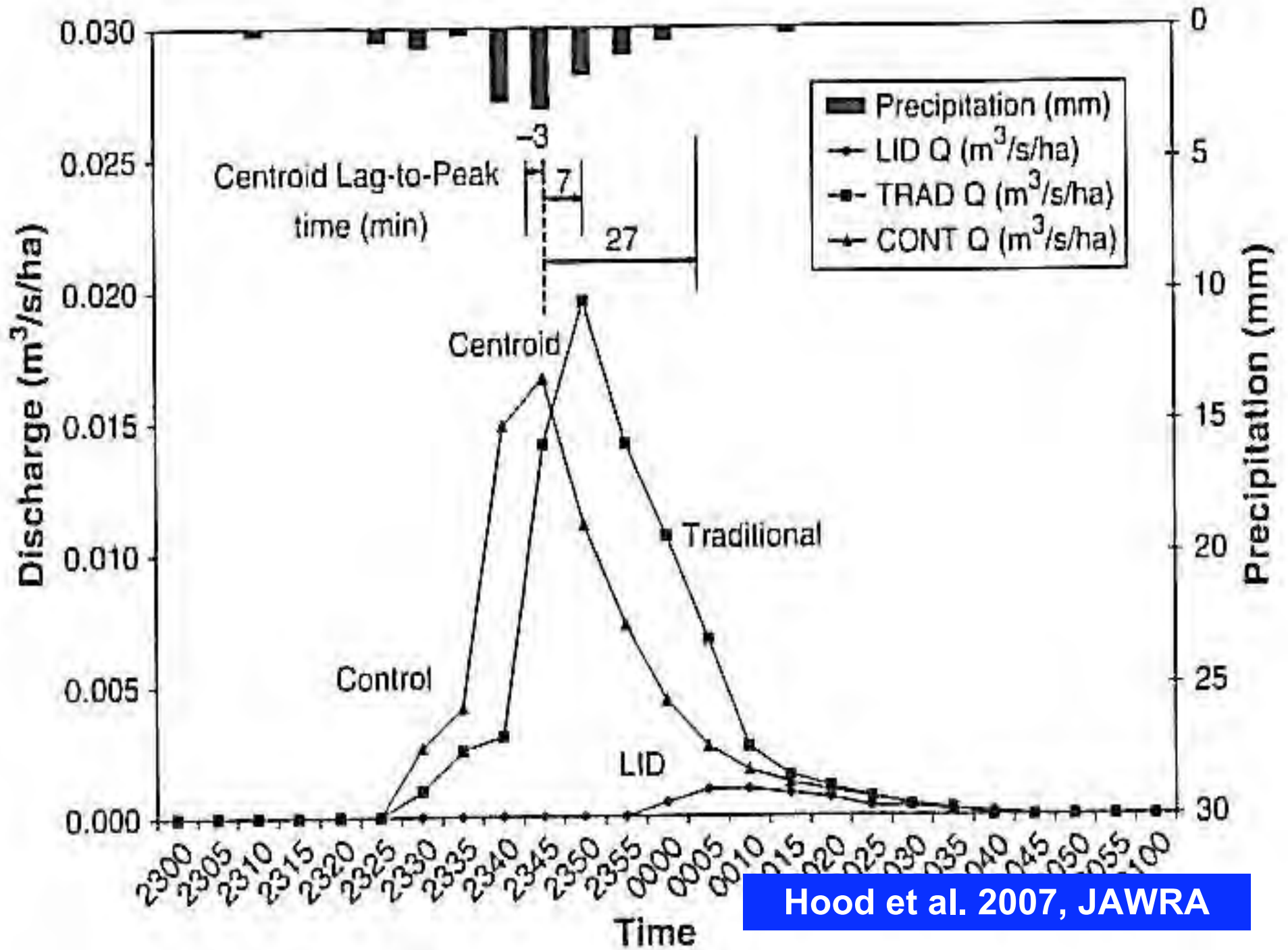
- Provide Basic LID Information
- Project Examples
- Interactive Discussions
 - What are the LID training needs from:
 - Planner's perspective
 - Engineer's perspective
 - Operations and Maintenance Needs



Field Monitoring

- **Ground Truth LID BMP Features**
 - So Cal Semi-arid applicability
 - Effectiveness
 - pollutant removal
 - hydrologic change reductions
- **Provide Support for Technical Guidance**





Hood et al. 2007, JAWRA

Technical Manual

- **How-to Guidance for LID Implementation in So Cal**
- **Fill in the Information Gaps**
 - **BMP Design**
 - **Implementation Challenges/Barriers**

More Quantitative



Final Training Workshops

- Incorporate findings from Literature Review, Interim Training Discussions, and Field Monitoring
- For Local Government Staff, Supporting Consultants, and Developers
- Several Sessions at Different So Cal Locations
- Ongoing Training Program with CASQA



Status

- Literature Review Complete
- Two Interim Training Sessions Completed and Two More Scheduled
- Candidate Monitoring Sites Identified
- Coordination with Several Other Related Projects
 - CAWALUP
 - LGC Ventura County
 - San Diego County LID Work
 - Chino Basin Landscape Alliance
 - Other LID Work in California
 - Alluvial Fan Task Force



Status

- **Information Gaps Identified**
- **Identified Implementation Challenges/Barriers**
 - Interdepartmental Cooperation
 - Lack of Training “Across the Board”
 - Difficult to Change Existing System
 - Education/Acceptance of/by Politicians
 - Conflict with Codes
- **Scheduled Completion in October 2008**



Questions at end of Session

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