

LID Resources

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Presentation Outline

- Southern California LID Manual
- Northern California Resources
- CASQA LID Portal
- Other LID Resources
- Other CASQA Resources

SMC LID Manual



Low Impact Development Manual for Southern California:

Technical Guidance and Site Planning Strategies

Prepared for

the Southern California Stormwater Monitoring Coalition

in cooperation with the State Water Resources Control Board

By

The Low Impact Development Center Inc



The Low Impact
Development Center, Inc.



Who Is The SMC?

- **Southern California Stormwater Monitoring Coalition**
 - **SCCWRP**
 - **SoCal Municipal Stormwater Programs**
 - **Six Counties**
 - **Cities of LA and Long Beach**
 - **SoCal Regional Water Boards**
 - **Los Angeles (Region 4), Santa Ana (Region 8), San Diego (Region 9)**
 - **State Water Resources Control Board**
 - **Caltrans**
 - **USEPA**
- **Strong Regulator-Permittee Partnership--**



Signatories to an Agreement

www.socalsmc.org

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Technical Manual

- **How-to guidance for LID implementation in Southern California**
 - **Addresses needs of MS₄ Permits**
- **Fill in the information gaps**
 - **BMP Design**
 - **Implementation Challenges/Barriers**
- **Integrate with CASQA BMP Handbooks**
 - **Available from CASQA LID Website and SMC Website**

Field Monitoring

- **Ground truth LID BMP features**
 - **So Cal Semi-arid applicability**
 - **Effectiveness**
 - **pollutant removal**
 - **hydrologic change reductions**
- **Provide support for technical guidance**
 - **Ongoing with several sites over 3-5 years**

Regulatory Objectives for LID

Pollutants

Hydrology

Habitat

From Regulations

Need a Square-to-Rounded Translator

To Implementation



Regulatory Objectives for LID

Pollutants

Hydrology

Habitat

LID Guidance and Training

Zoning

CEQA

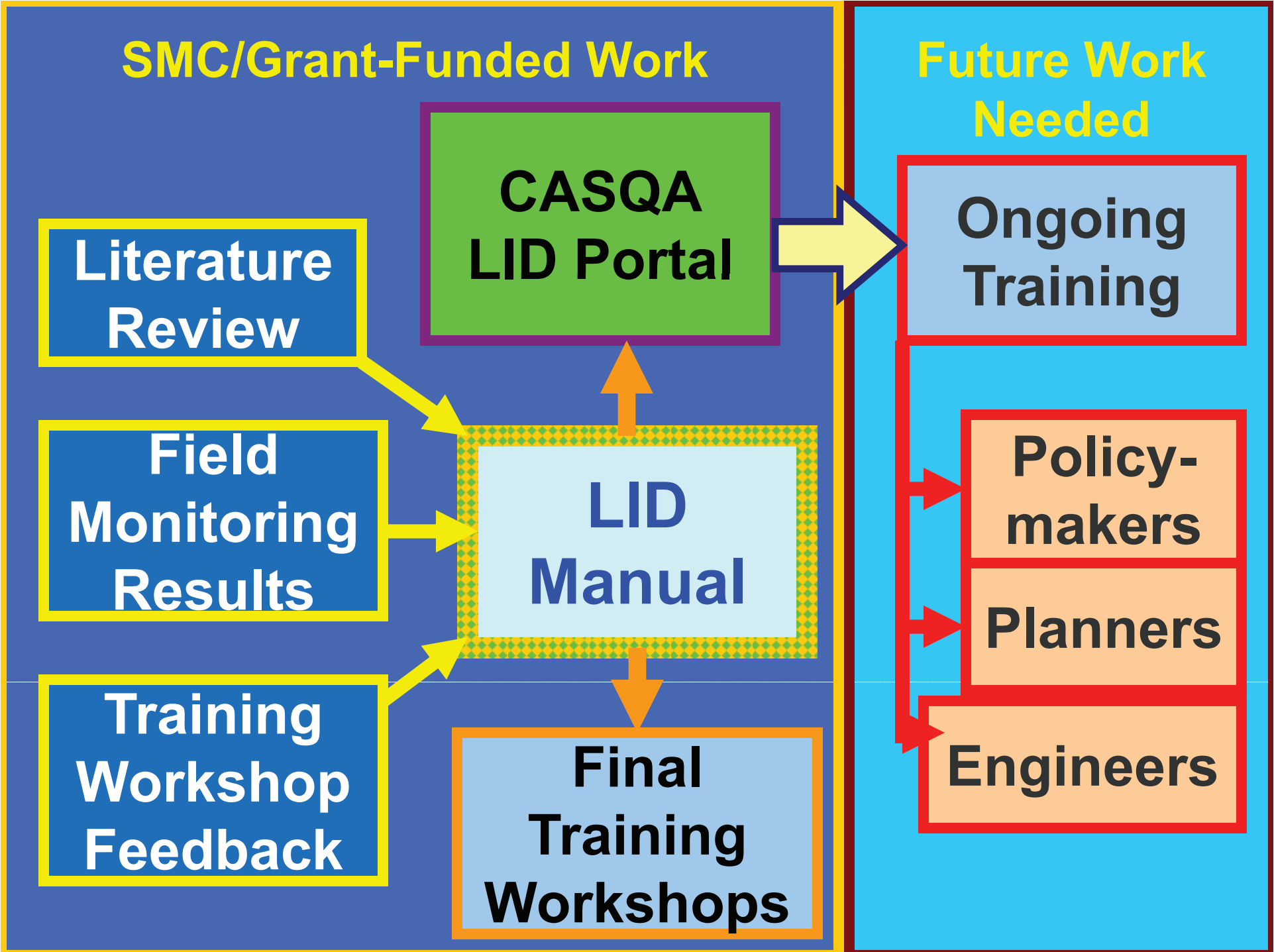
Planning
Commission

General
Plan

Landscape
Ordinances

Fire
Codes

Local Jurisdiction Development Process



Northern California Resources

- Bay Area Stormwater Management Agencies Assoc.:
 - “Start at the Source” Manual
 - “Using Site Design Techniques to Meet Development Standards for Stormwater Quality”
- Local Guidance Documents (examples)
 - Emeryville
 - Contra Costa Countywide Clean Water Program
 - San Francisco



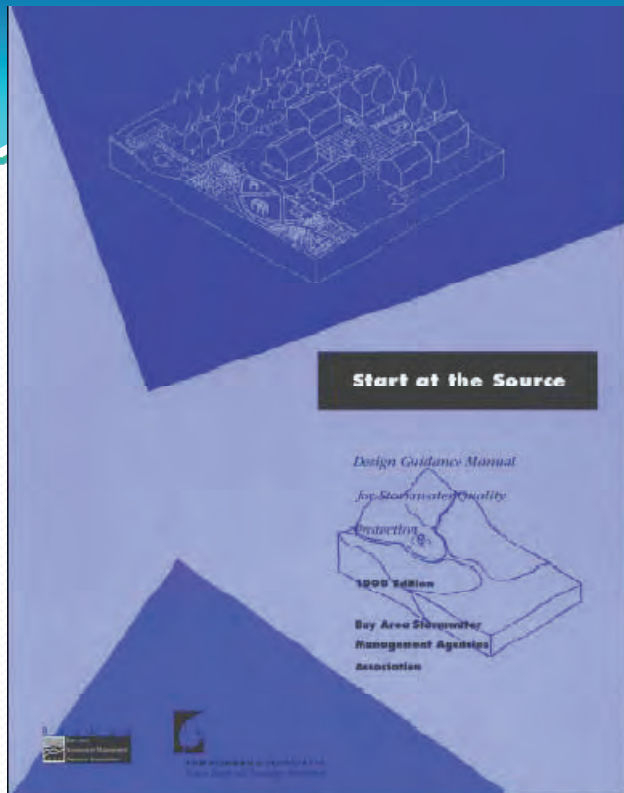
• San Mateo Countywide Water Pollution Prevention Program



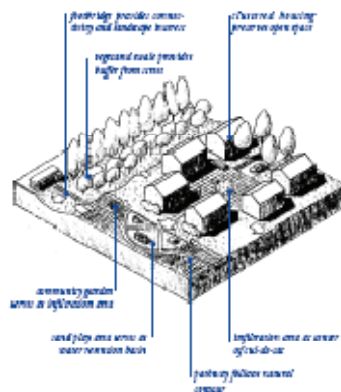
• Santa Clara Valley Urban Runoff Prevention

Start at the Source

Design Guidance Manual for Stormwater Quality Protection (1999)



- First “LID” Manual in California
- Describes site design concepts, planning and zoning
- Provides design details for:
 - Permeable paving
 - Streets
 - Parking lots
 - Driveways
 - Buildings
 - Landscape
 - Outdoor work areas
- Case studies for different land uses

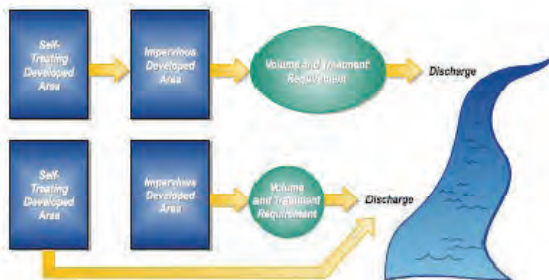




Using Site Design Techniques to Meet Development Standards for Stormwater Quality

A Companion Document to Start at the Source (2003)

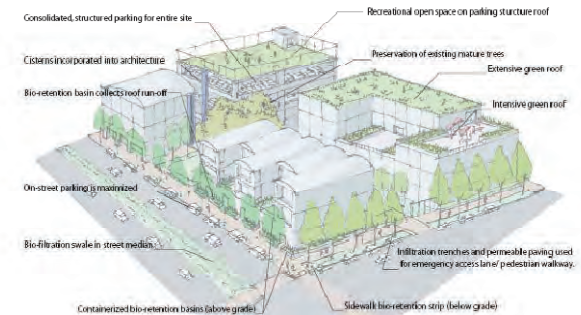
- Guidance on how to use site design techniques to reduce stormwater treatment requirements
 - Zero Discharge Areas
 - Self-Treating Areas
 - Runoff Reduction Areas



Local Guidance Documents

- Emeryville, CA
 - “Stormwater Guidelines for Green Building in Dense Redevelopment” (2005)

www.epa.gov/smartgrowth/emeryville.htm



- Contra Costa Clean Water Program
 - Stormwater C.3. Guidebook (2008) – Stormwater quality requirements for development applications



www.cccleanwater.org

Local Guidance Documents

- San Francisco
 - Stormwater Design Guidelines (2009)

www.sfwater.org



- San Mateo County
 - Sustainable Green Streets and Parking Lots Design Guidebook (2009)

www.flowstobay.org



Santa Clara Valley Urban Runoff Program Site Design Guidance Manual (2007)



Santa Clara Valley Urban Runoff Program Site Design Award Winners



**Permeable Pavers,
Palo Alto/Stanford
Community Playing
Fields**



**Pervious Concrete
Parking Lot,
Congregation Sinai,
San Jose**

**Landscaped
Detention Area,
Alum Rock Library,
San Jose**



The CA LID Portal

- Hosted at the California Stormwater Quality Association (CASQA) website
- A brain-child of collaboration between the California Coastal Commission, UC Davis Extension Center for Water and Land Use, Southern California Storm Water Monitoring Coalition, Central Coast Regional Water Quality Control Board and CASQA to find effective ways to bring LID resources to California users.
- Will be up and running by May, 2010 at:

www.californialid.org



CA LID Portal

- The CA LID Portal is intended to provide access to basic LID resources to the stormwater management community
- The information will include selected links and references to existing material, as well as information and tools specifically developed for the site.
- The initial website content will provide access to technical, regulatory, and program LID resources.



Other Resources

- Low Impact Development Center

www.lowimpactdevelopment.org



The Low Impact
Development Center, Inc.

- Center for Watershed Protection

www.cwp.org



- US EPA LID Website

www.epa.gov/nps/lid

- California Coastal Commission

- CalWaLUP



UC Davis Center for Water & Land Use



CASQA Resources

- BMP Handbooks:
 - Construction
 - New Development and Redevelopment
 - Municipal
 - Industrial and Commercial
- Introduction to Hydromodification
 - White Paper, Fact Sheet, Presentation
- Municipal Stormwater Program Effectiveness Assessment Guidance Document



www.casqa.org

