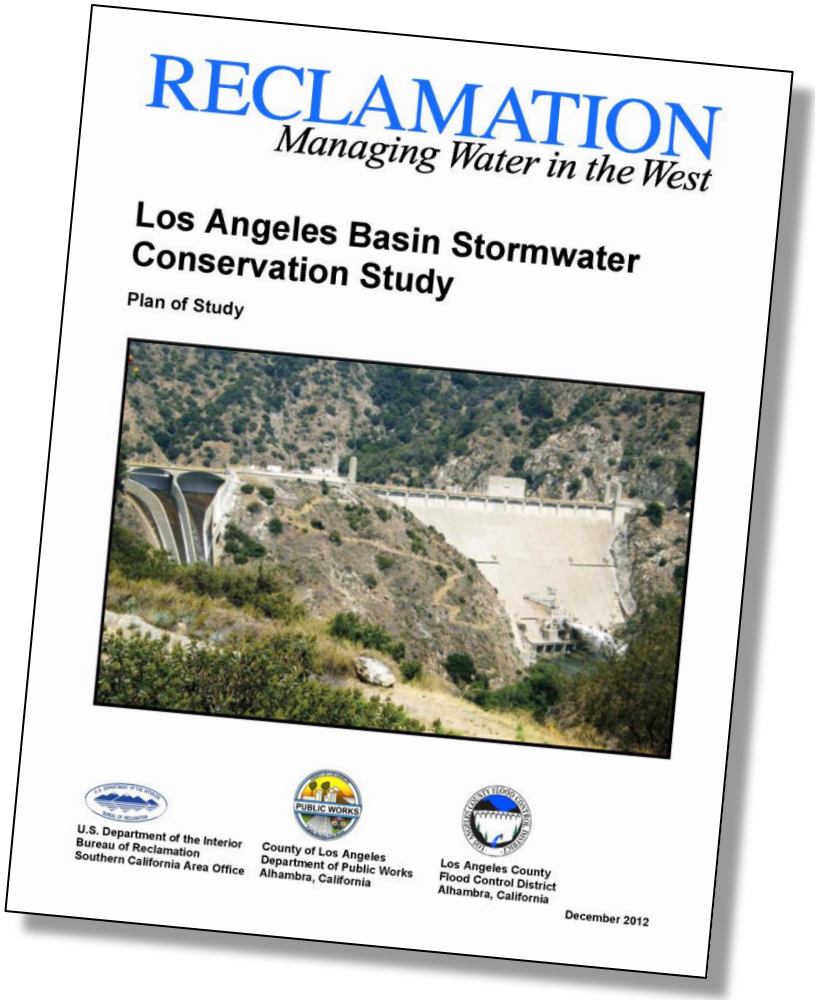
Los Angeles Basin
Stormwater Conservation Study

Los Angeles County Flood Control District
U.S. Department of the Interior – Bureau of Reclamation

TASK 5 – Infrastructure & Operations Concepts
Public Stormwater Capture Concept Charette
November 12, 2014

Overview

- LA Basin Study Update
- Future Stormwater Success
- Breakout Sessions
- Next Steps



Study Partnership

Collaboration Between »

- Los Angeles County Flood Control District
- U.S. Department of the Interior – Bureau of Reclamation

Cost Estimate » $2.4 million

Study Length » 3 Years

- Completion in December 2015

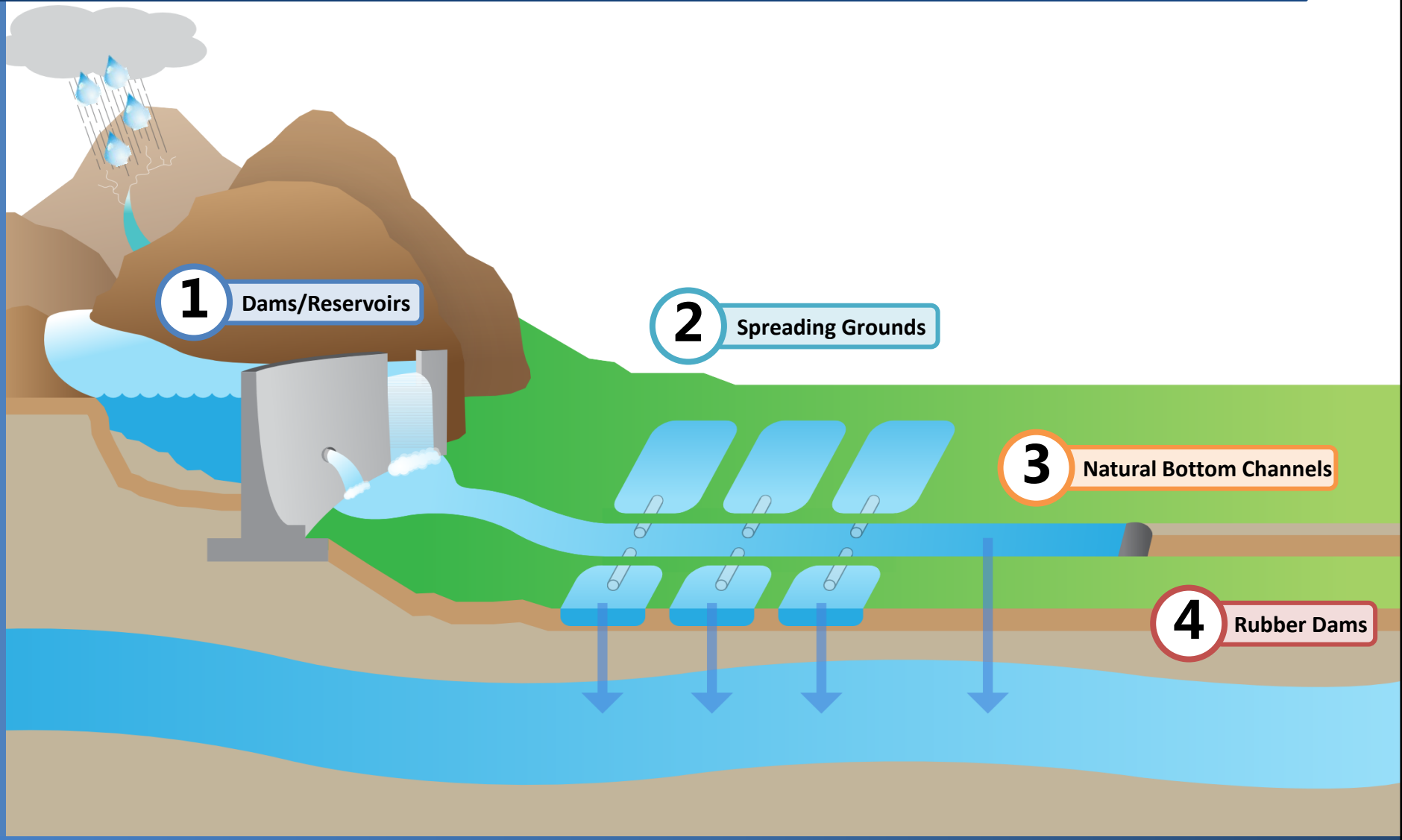
LACFCD

Serves 10 million residents over 2,700 square miles

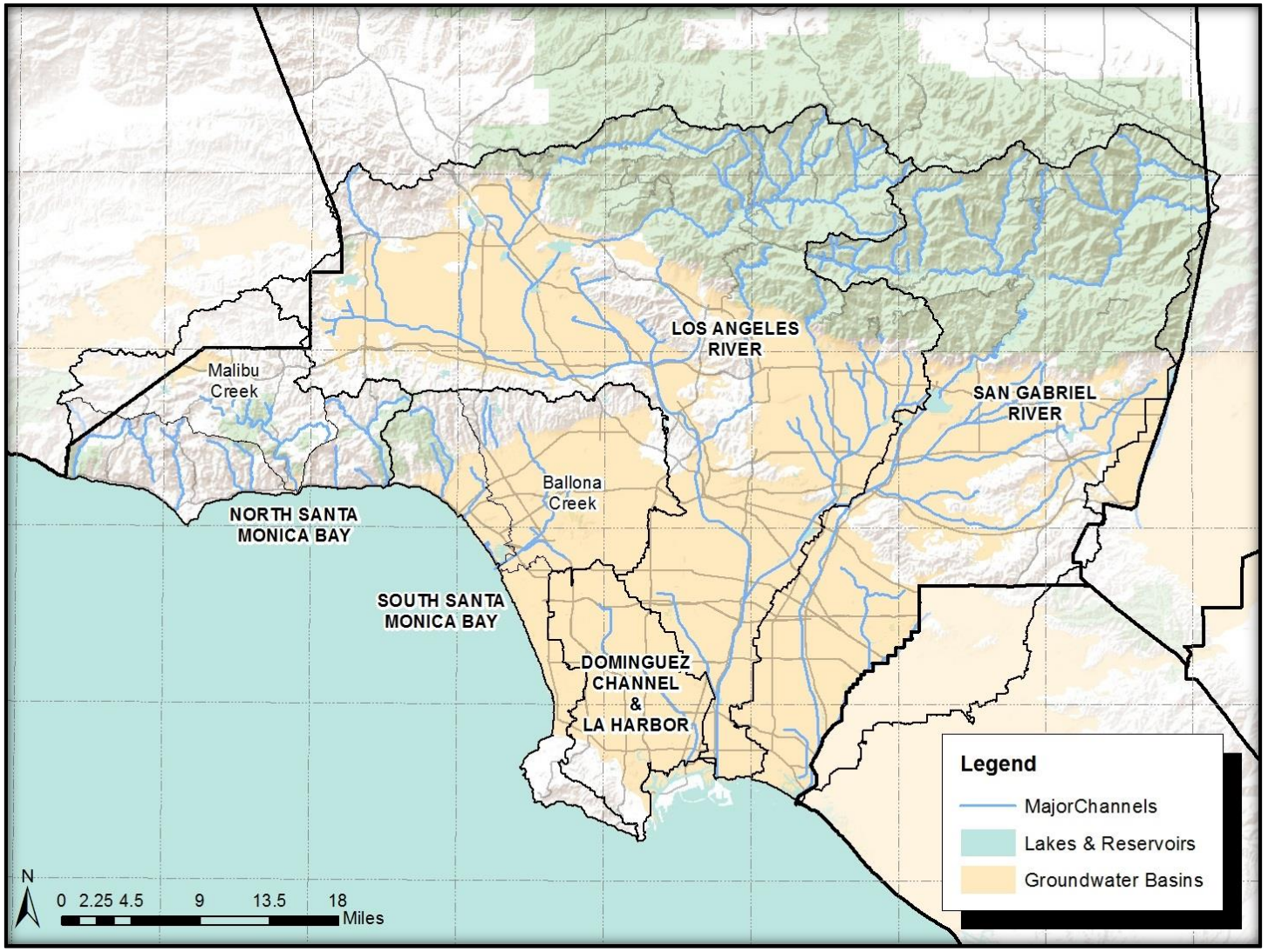
LACFCD owns and operates a vast flood control and water conservation system:

- 14 major dams
- 26 spreading grounds
- 500 miles of open channels
- 3,000 miles of storm drain
- Over 150 debris basins
- Extensive seawater barrier system

Water Conservation System



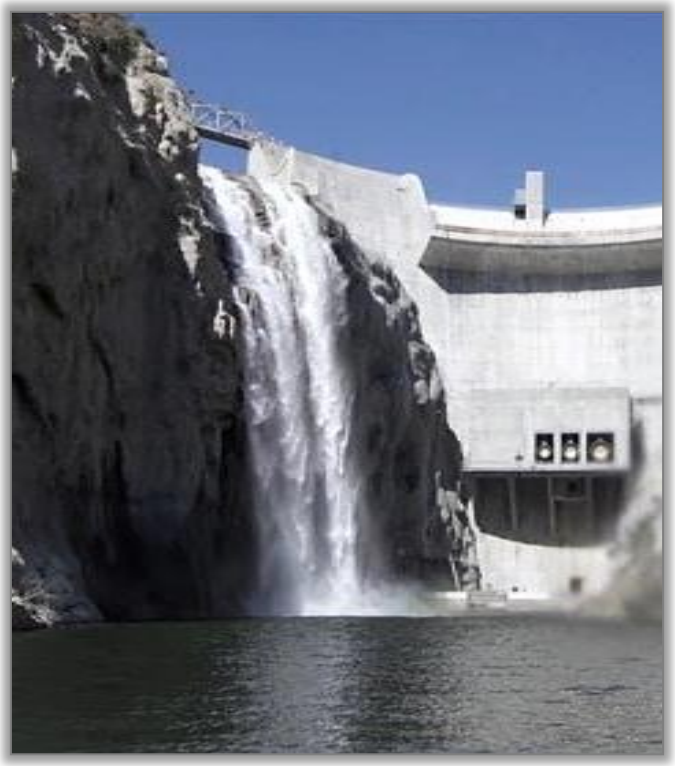
Study Area


LOS ANGELES RIVER
Malibu Creek
SAN GABRIEL RIVER
Ballona Creek
NORTH SANTA MONICA BAY
SOUTH SANTA MONICA BAY
DOMINGUEZ CHANNEL & LA HARBOR
Legend
MajorChannels
Lakes & Reservoirs
Groundwater Basins
N
0 2.25 4.5 9 13.5 18
Miles

Core Objectives

1) Evaluate ***EXISTING*** water conservation under ***FUTURE*** conditions

2) Evaluate ***POTENTIAL NEW*** facilities & operational changes for climate change



KEY CONSIDERATIONS

- ***Climate Change***
- ***Population Growth***

Study Elements

Downscaled Climate Change & Hydrologic Modeling

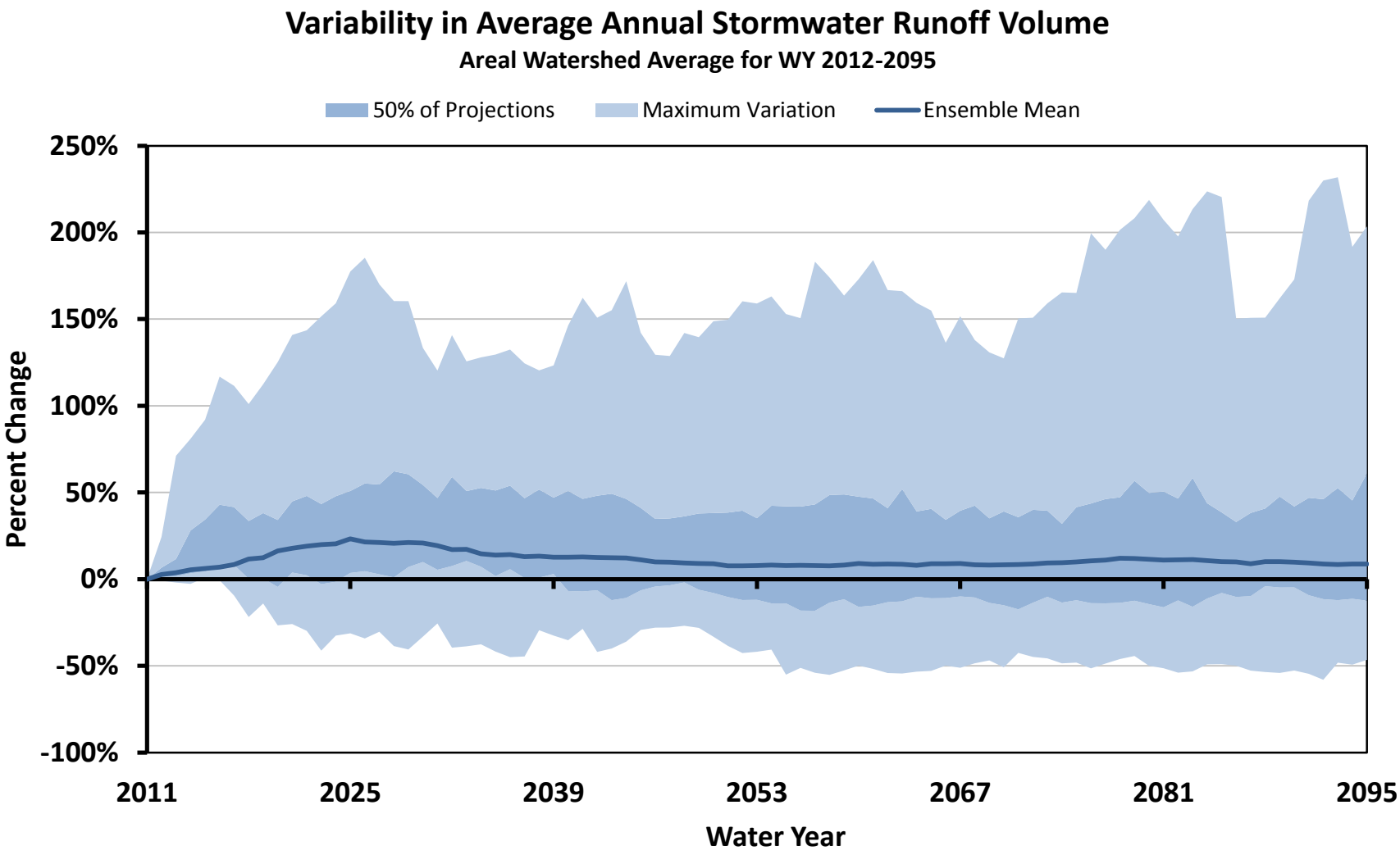
Water Supply & Demand Projections

Existing Infrastructure Response

Develop Stormwater Conservation Concepts

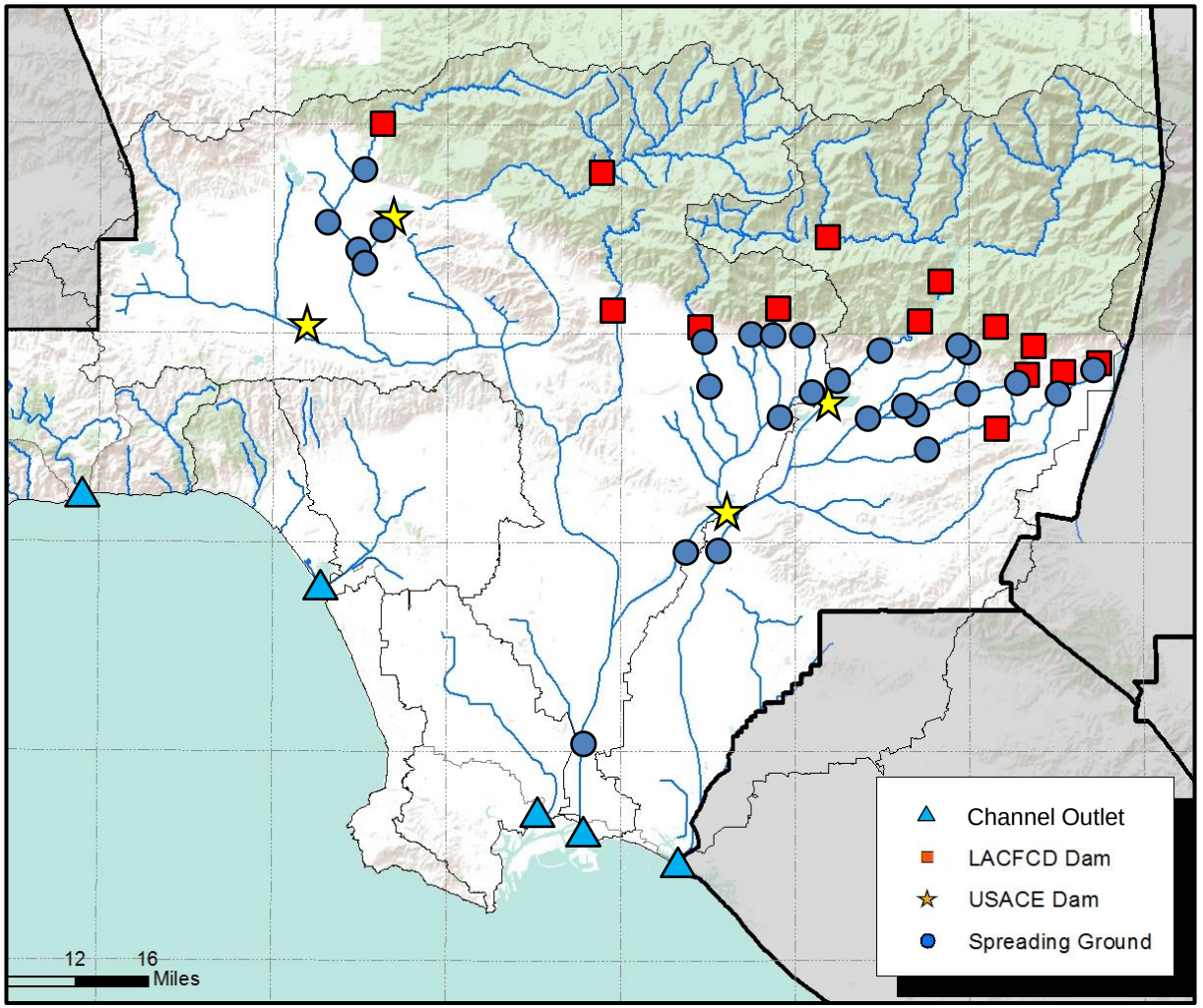
Tradeoff Analysis & Recommendations

A Need for Climate Resiliency

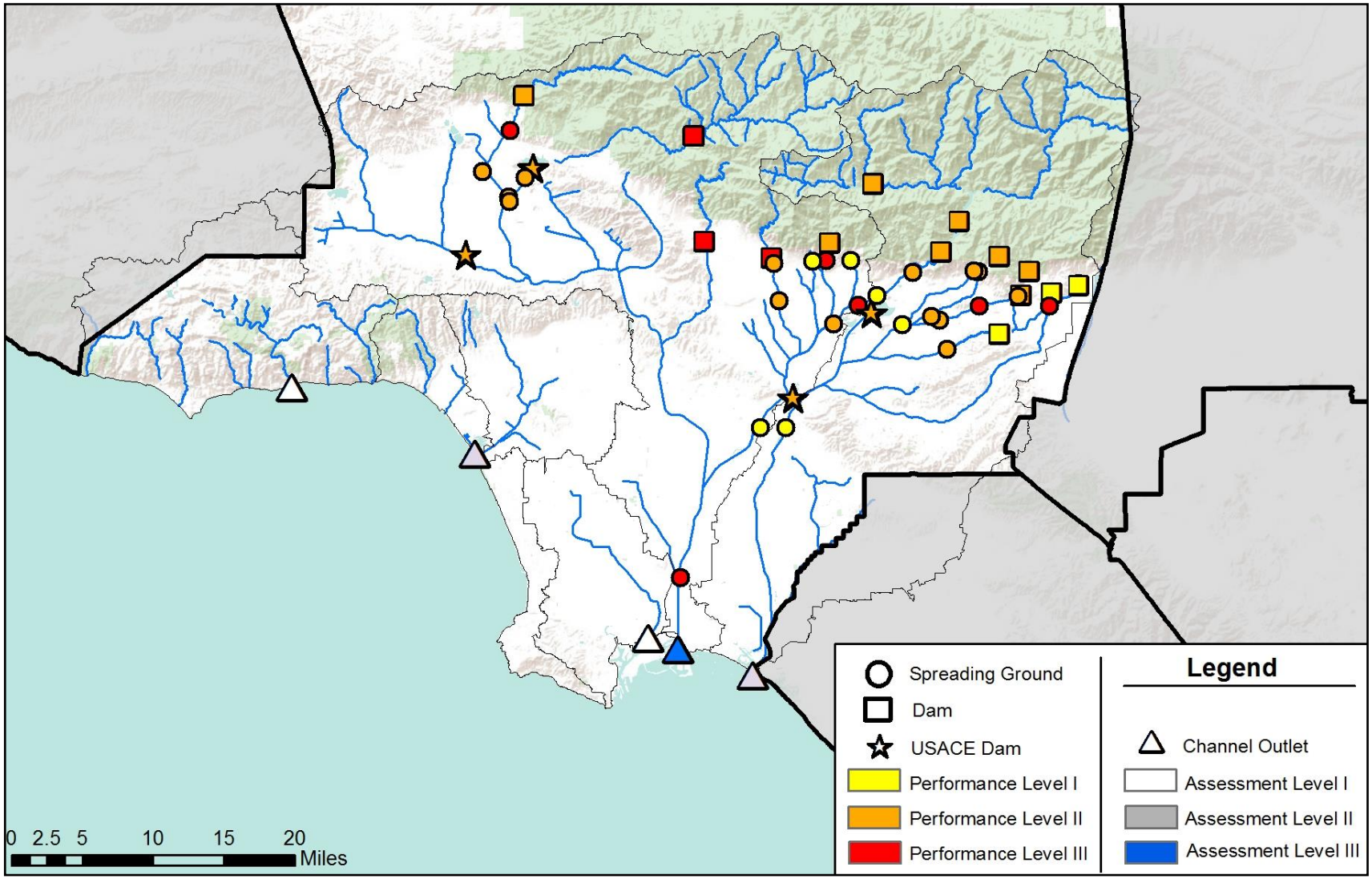


Existing Infrastructure

- **18 Dams**
  - 14 LACFCD
  - 4 Army Corps
- **26 Spreading Grounds**
- **5 Major Channel Outlets**



Water Conservation Findings



The Big Picture

STUDY GOAL

***Tool* for future planning by LACFCD & Local Partners**

Enhancing the Water Conservation System to Address Future Conditions

Charette Overview

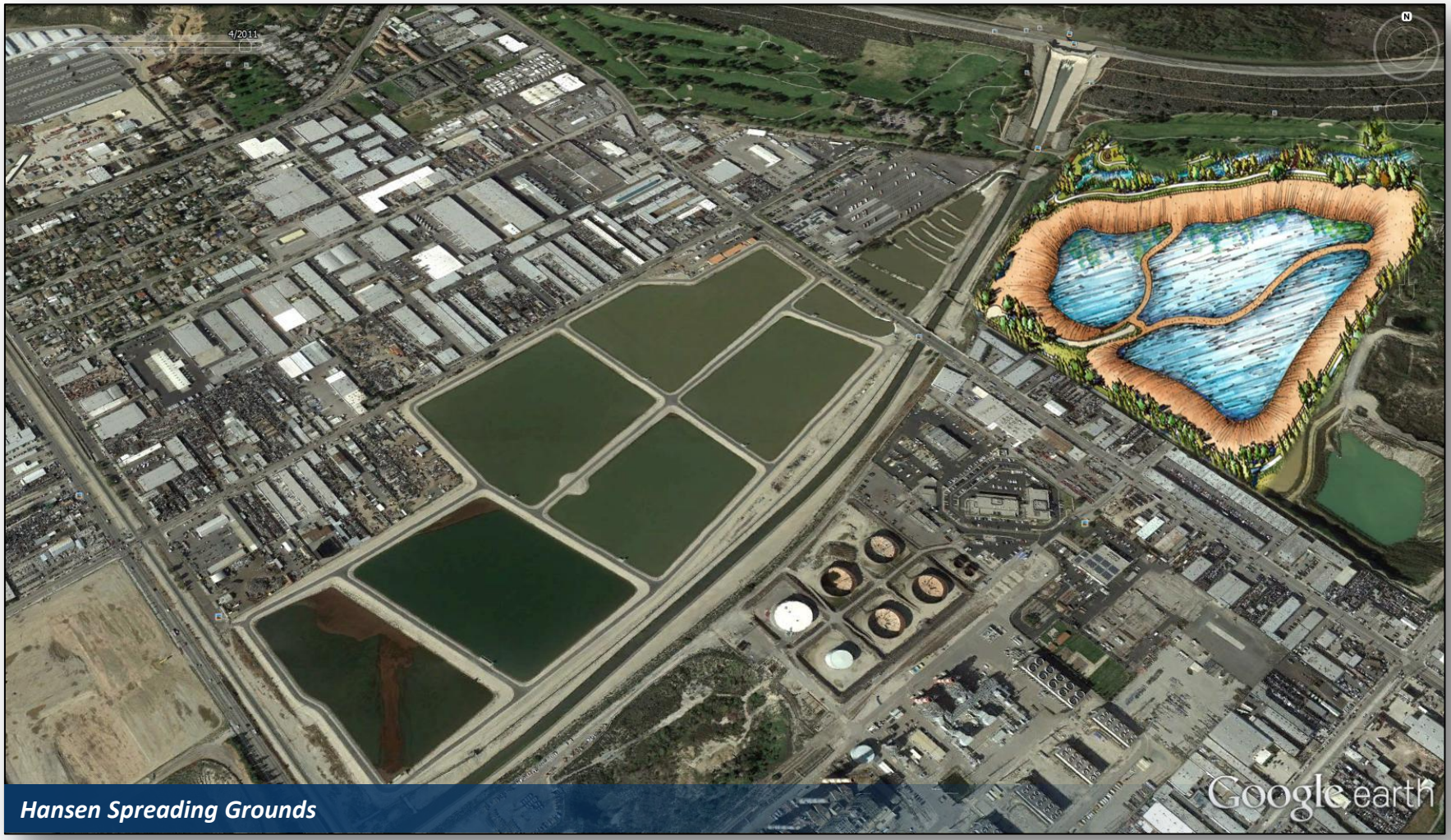
Goal

- To brainstorm stormwater capture and storage 5 P's (Projects, Plans, Programs, Policies & Partnerships) Concepts & Success Criteria

Objectives

- To engage in individual, small group and large group brainstorming & discussions
- To develop viable, effective Project Concepts for stormwater capture and storage that can be replicated throughout the basin
- To brainstorm supporting Plans, Programs, Policies and Partnerships that ensure success of physical measures
- To draft success criteria for 5 P's

Inspirations



Hansen Spreading Grounds

The Future of Stormwater

What do we ***value*** and
what does the future of ***successful***
stormwater capture look like?

Breakout Ground Rules

- **Ground Rules**
  - **Everyone encouraged to participate.**
  - **Time together is brief, please give everyone a chance to contribute.**
  - **All ideas count! No judgment in brainstorming.**
  - **Silence cell phones; take calls outside.**
  - **Any other ground rules to add?**

Breakout Group Instructions

- Relocate into 3-4 groups, same organization – split up
- 3x3 Individual Brainstorm Exercise
- Breakout Group Session Instructions
  1. Map & draw PROJECT Concepts for typical sites/facilities (plan view, cross-section, doodles)
  2. Brainstorm supporting Plans, Programs, Policies & Partnerships
  3. Brainstorm 5 P's success criteria
  4. Prioritize 5 P's
  5. Report Out to large group (pick a reporter)

Breakout Group Instructions

PROJECTS

- *What physical PROJECT concepts does your group recommend?*
- *Can you pull from the list of measures?*
- *Doodle your design ideas, in plan view & cross-section.*
- *Describe how it would change.*
- *What success criteria does your group want to apply?*
- *100% stormwater capture? Triple the capacity of the basin?*

PLANS

- *Do you need to go further up in the watershed?*
- *Do your ideas require a PLAN?*
- *What problems would this PLAN solve?*
- *What are the key concepts of the PLAN?*
- *What success criteria is needed to gage success of a PLAN?*

PROGRAMS

- *Would a volunteer or inter-agency PROGRAM efficiently solve a problem?*
- *Perhaps a change in the operations of a facility?*
- *How would you measure a successful*

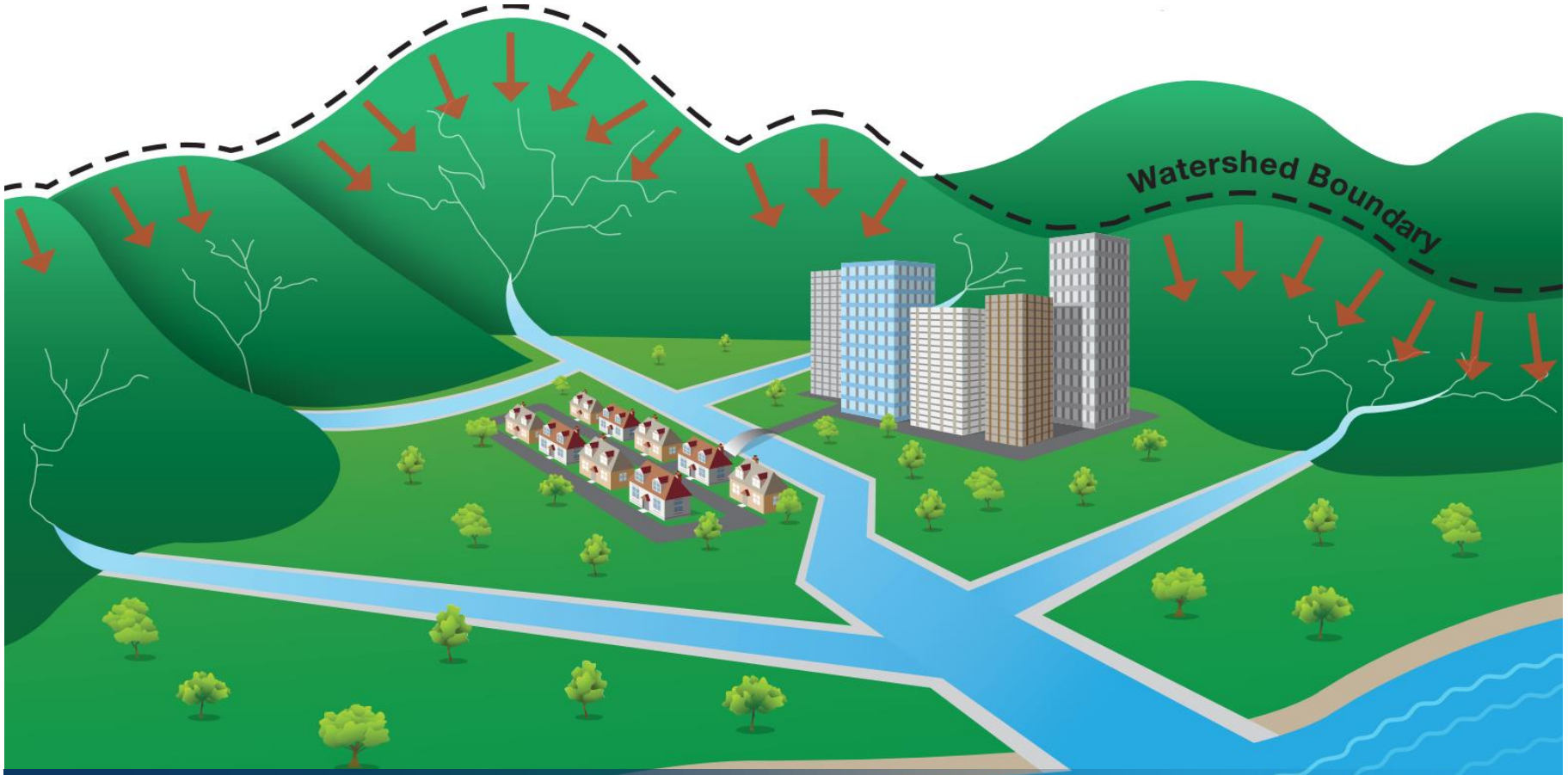
POLICIES

- *Perhaps the current POLICIES need to be changed?*
- *What politically can be done to optimize performance?*
- *What metrics measure the success of a new or improved POLICY?*

PARTNERSHIPS

- *What creative PARTNERSHIPS could solve problems effectively?*
- *How can PARTNERSHIPS maximize resources & leverage?*
- *Are there private-public PARTNERSHIPS that could support regional water supply?*
- *How can you measure a successful PARTNERSHIP?*

Breakout Sessions

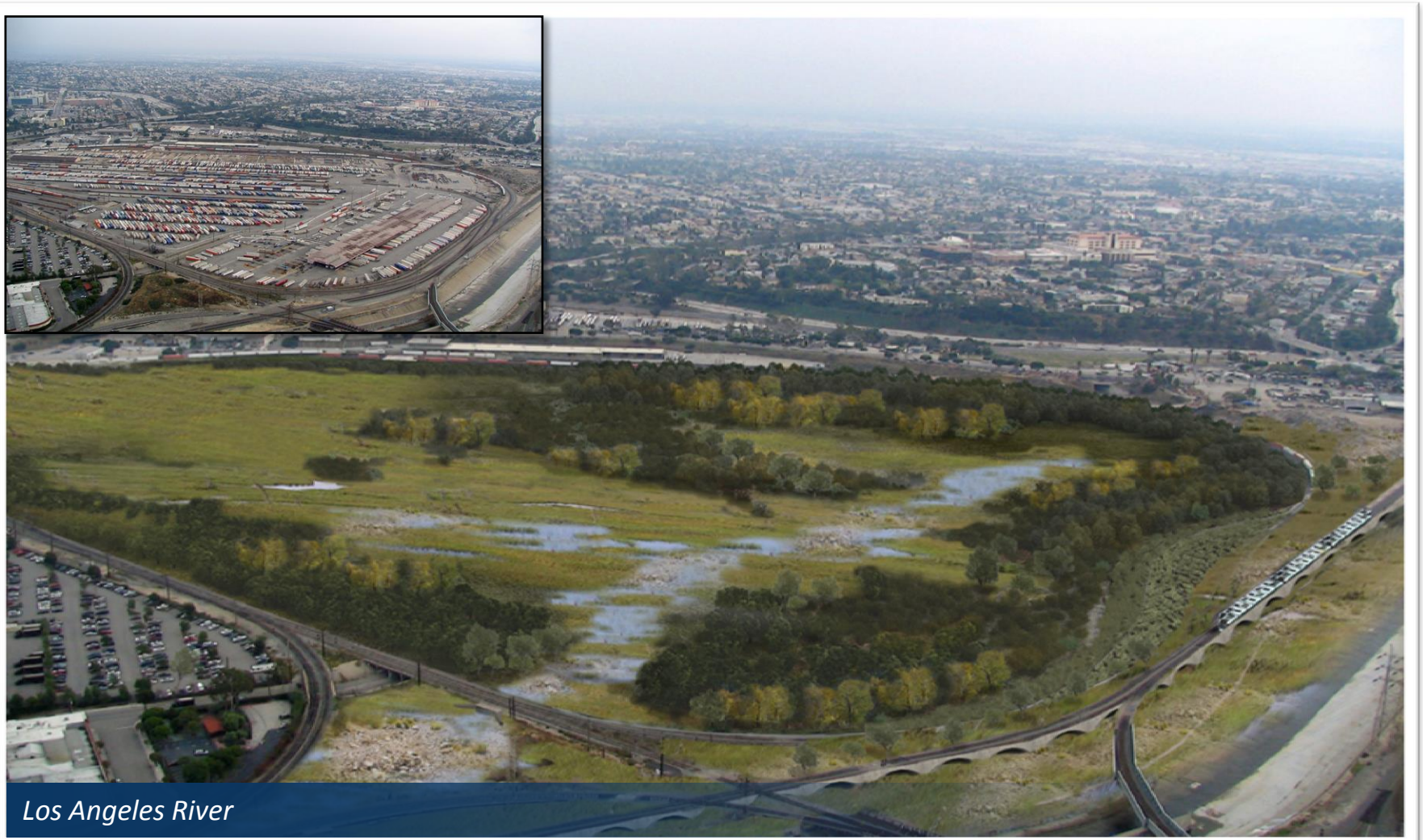


Enhancing the Water Conservation System to Address Future Conditions

Breakout Sessions

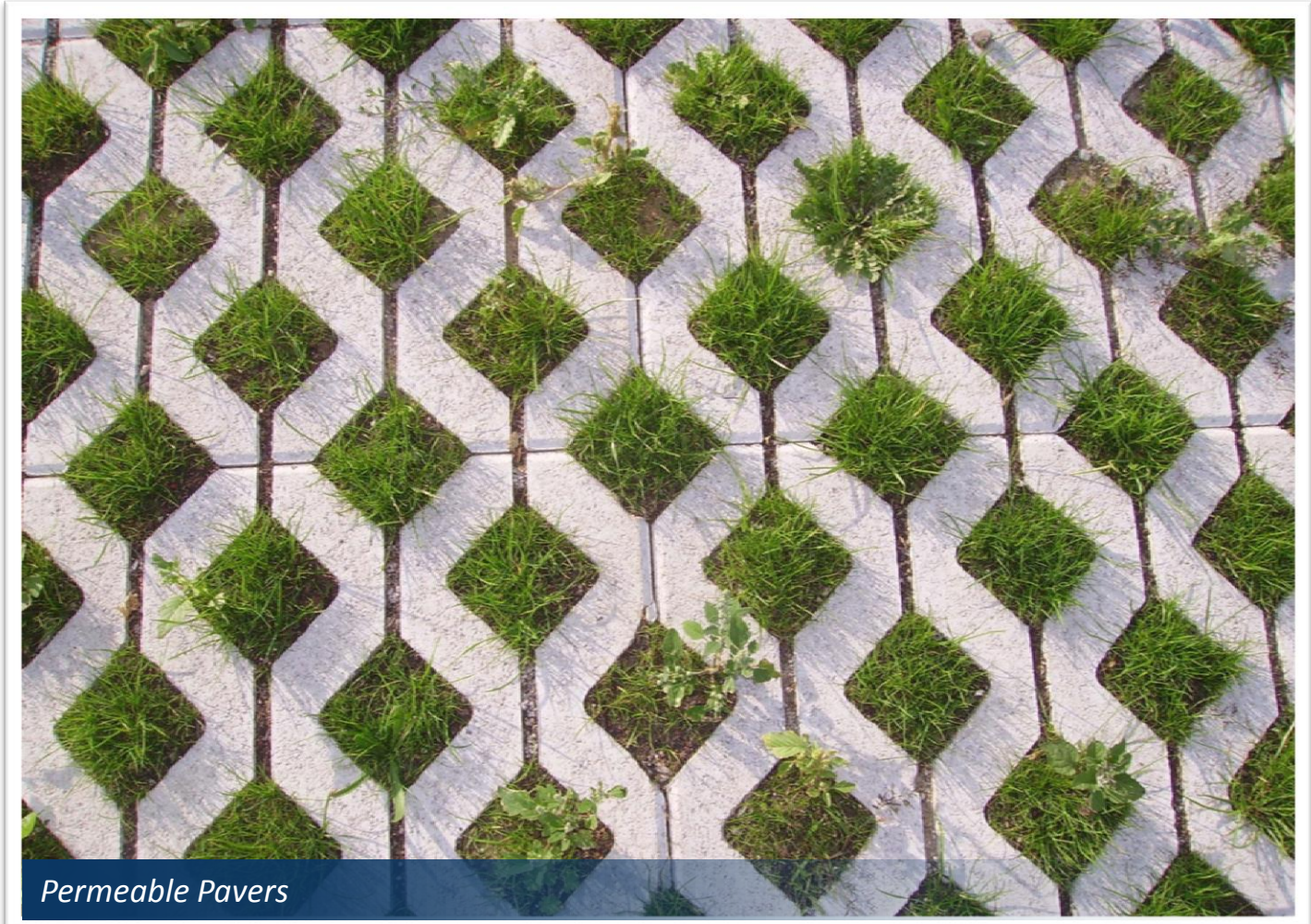
Big Tujunga Dam

Breakout Sessions



Los Angeles River

Breakout Sessions



Permeable Pavers

Breakout Sessions

Los Angeles River

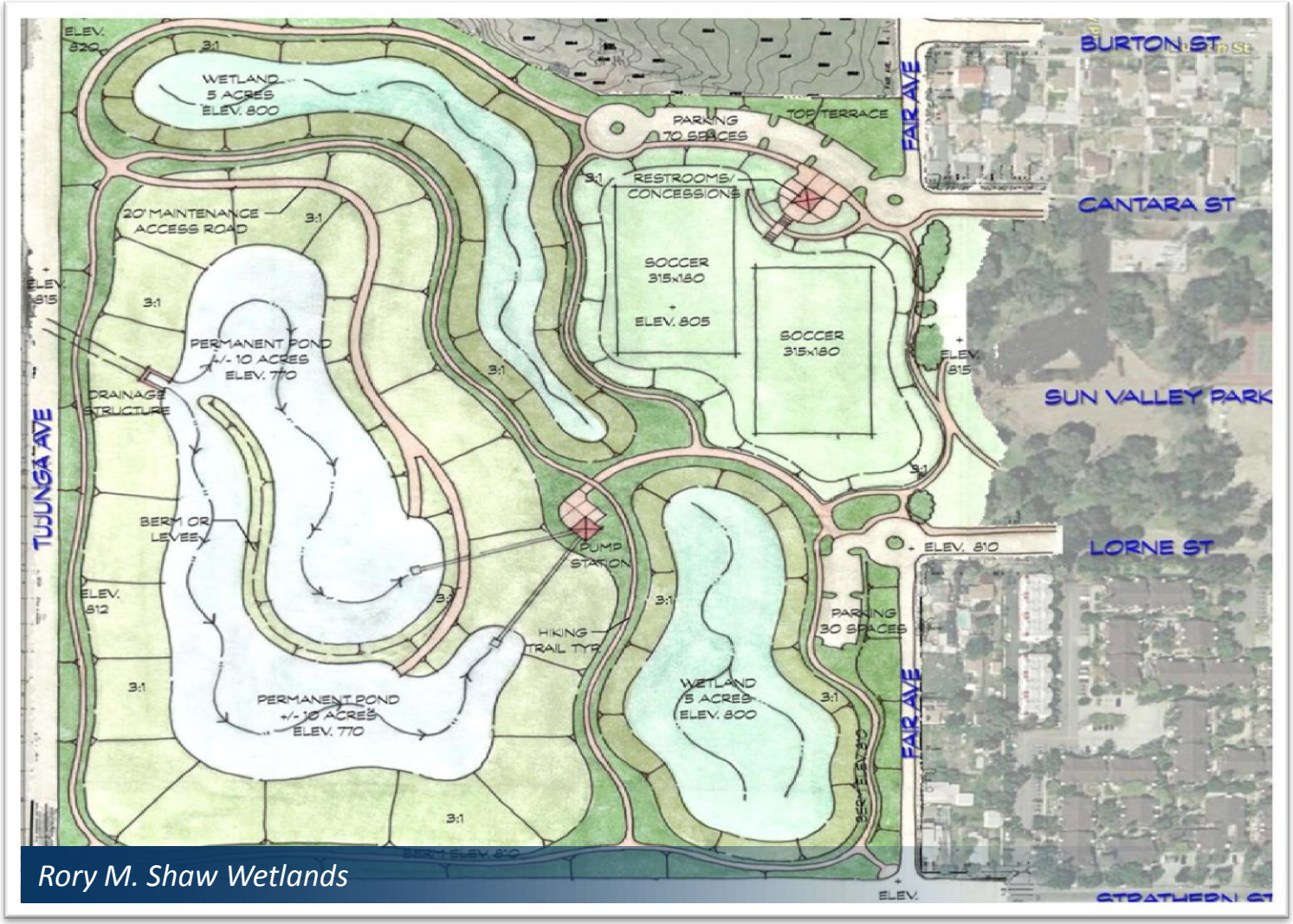
Breakout Sessions

Elmer Avenue Rain Garden

Breakout Sessions

Dominguez Gap Wetlands

Breakout Sessions



Rory M. Shaw Wetlands

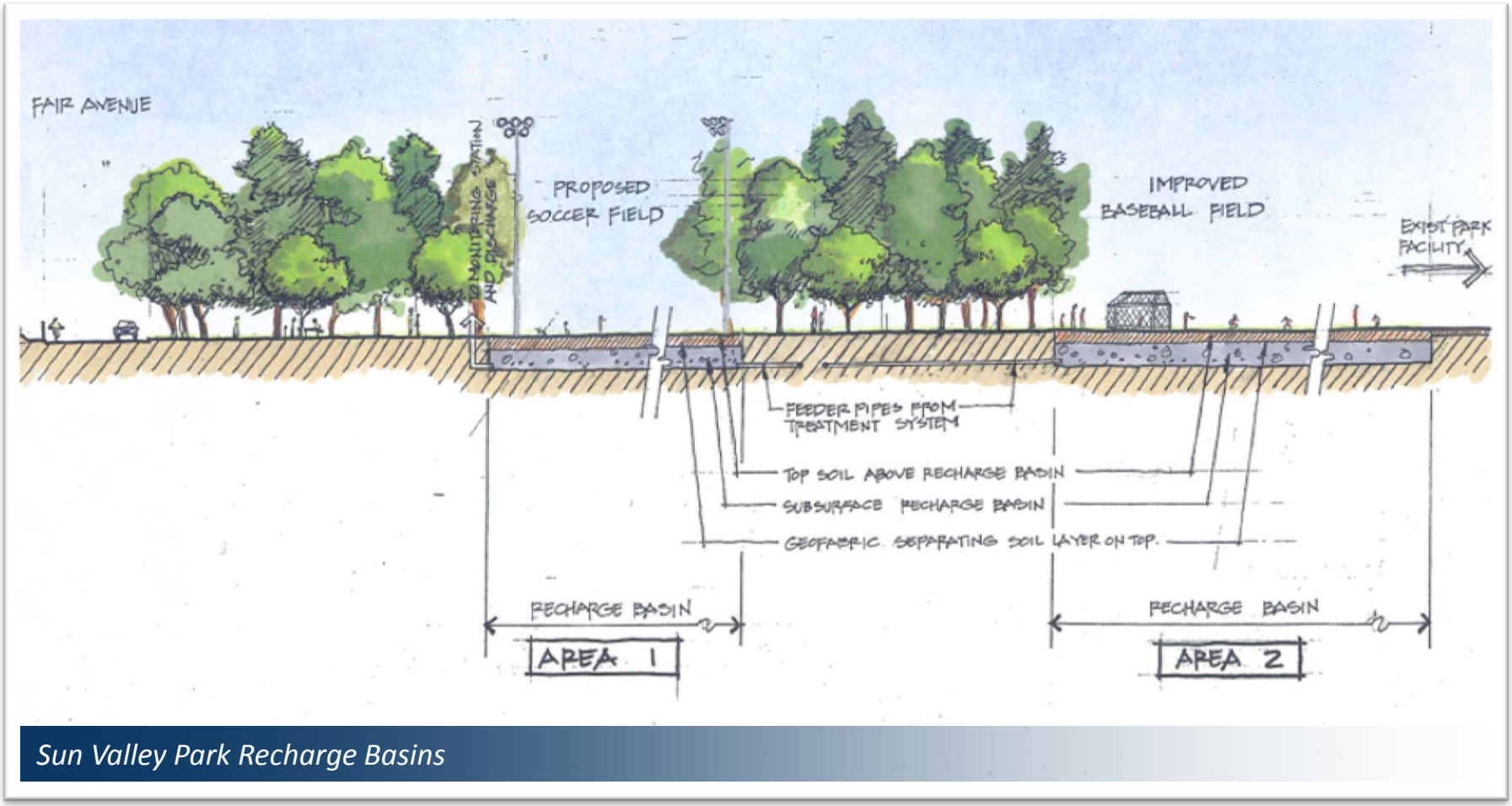
Breakout Sessions

San Gabriel River

Breakout Sessions

Elmer Avenue – Before and After

Breakout Sessions

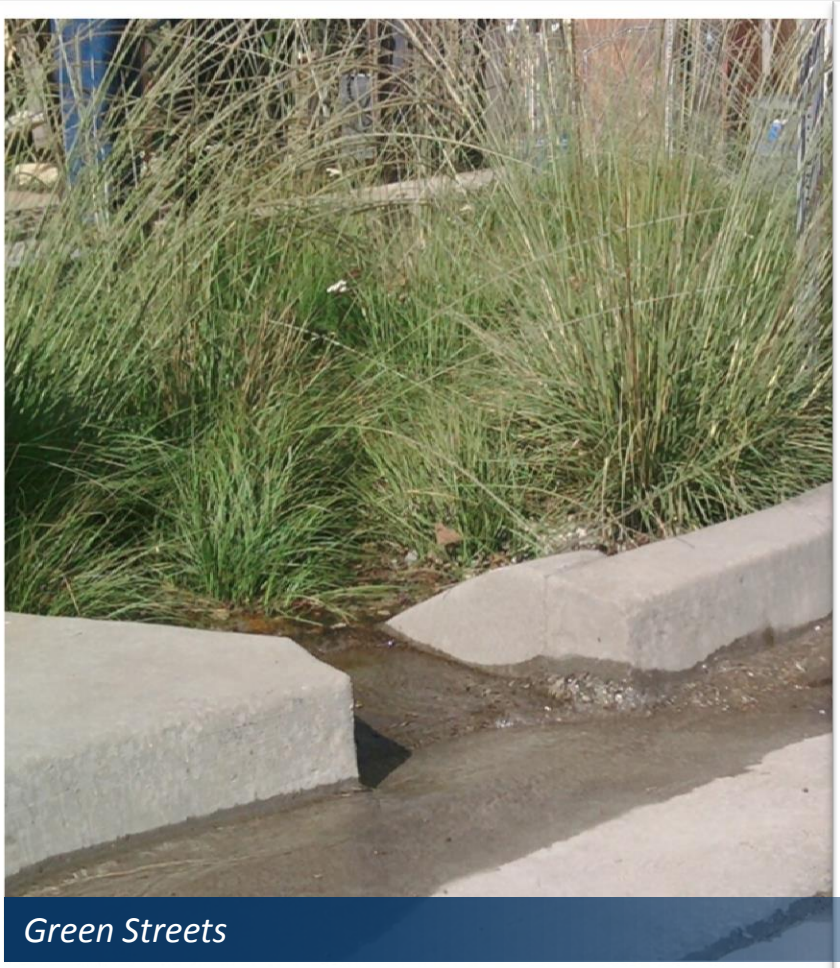


Sun Valley Park Recharge Basins

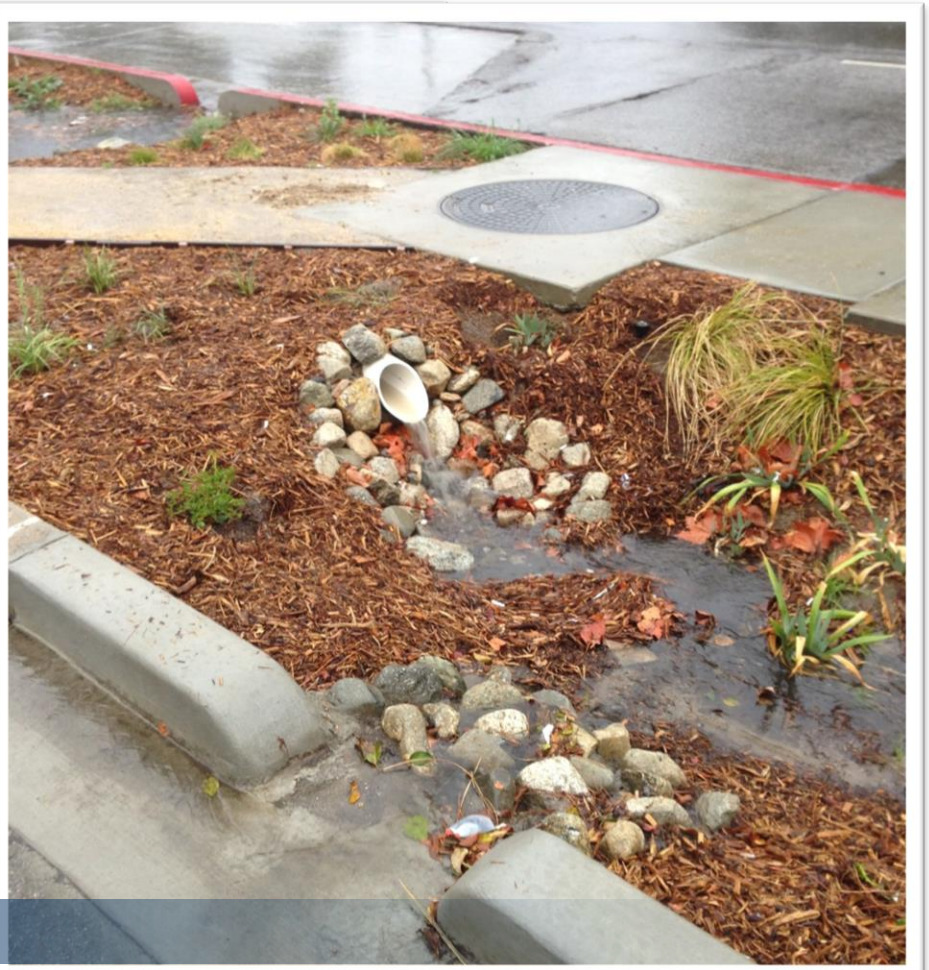
Breakout Sessions

Morris Dam

Breakout Sessions



Green Streets



Breakout Sessions

Parking Lot Infiltration Chambers

Breakout Sessions

Dominguez Gap Wetlands

Upcoming Study Items

- **Submit Any Additional Concepts**
  - Due November 18, 2014
- **Next Task**
  - Task 6 – Trade-off Analysis & Recommendations

Contact Information

Los Angeles Basin Stormwater Conservation Study

http://www.usbr.gov/lc/socal/basinstudies/LABasin.html

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