Southern California Water Committee Stormwater Capture Opportunities

Richard Atwater, Executive Director
Southern California Water Committee

So. Calif. Env. Dialogue

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Introduction to SCWC

- Established in 1984
- Non-profit, non-partisan organization dedicated to education & outreach on water issues
- Regional leader on water policy
- Stormwater education program – Pump Up The Volume
- Spans Los Angeles, Orange, San Diego, San Bernardino, Imperial, Riverside, Ventura & Kern Counties
- Regional base; statewide influence

Diverse & Influential Members

- 200 members:
  - Business
  - Local government
  - Water agencies
  - Agriculture
  - Environmental
  - Labor
  - General public
- Unique water policy group representing such diverse interests

Stormwater Task Force

- Background on SCWC Stormwater Task Force
- Summary of Issue Paper
- Workshop on June 28 at MWD
- Development of Database on Stormwater Projects in So Cal

Background & Overview

- SCWC SW Task Force White Paper
- Database development
  - Project attributes
  - Project costs and benefits
  - Stakeholder involvement
  - Funding Strategies
- SoCal SW capture summary paper
  - Current SW capture efforts
  - Actual project based demonstration of SW capture benefits

Background

- **Focus:** So Cal MS4 Permits and opportunities to conserve stormwater
- **Purpose:** Evaluate for stormwater capture/recharge or water supply opportunities
- **Relevant state policies**:
  - State Board's Strategic Plan Update 2008 - 2012
  - State Board's 2009 Recycled Water Policy
  - Delta Stewardship Plan

Stormwater Paper

- MS 4 permits offer opportunity for integrated watershed management approach
- Recognize need to protect groundwater & water supply
- Need to encourage watershed specific solutions based on existing infrastructure and local geology to recharge groundwater

Multi-Use Project Types

Flood Protection and Drainage

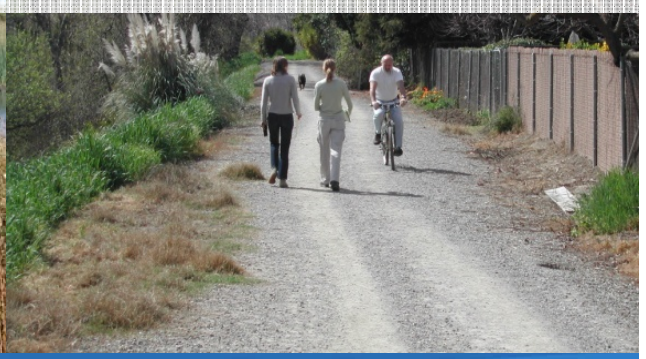
Site Specific LID -- Water Supply and Water Quality

Traditional Water Supply

Water Quality Streetscape

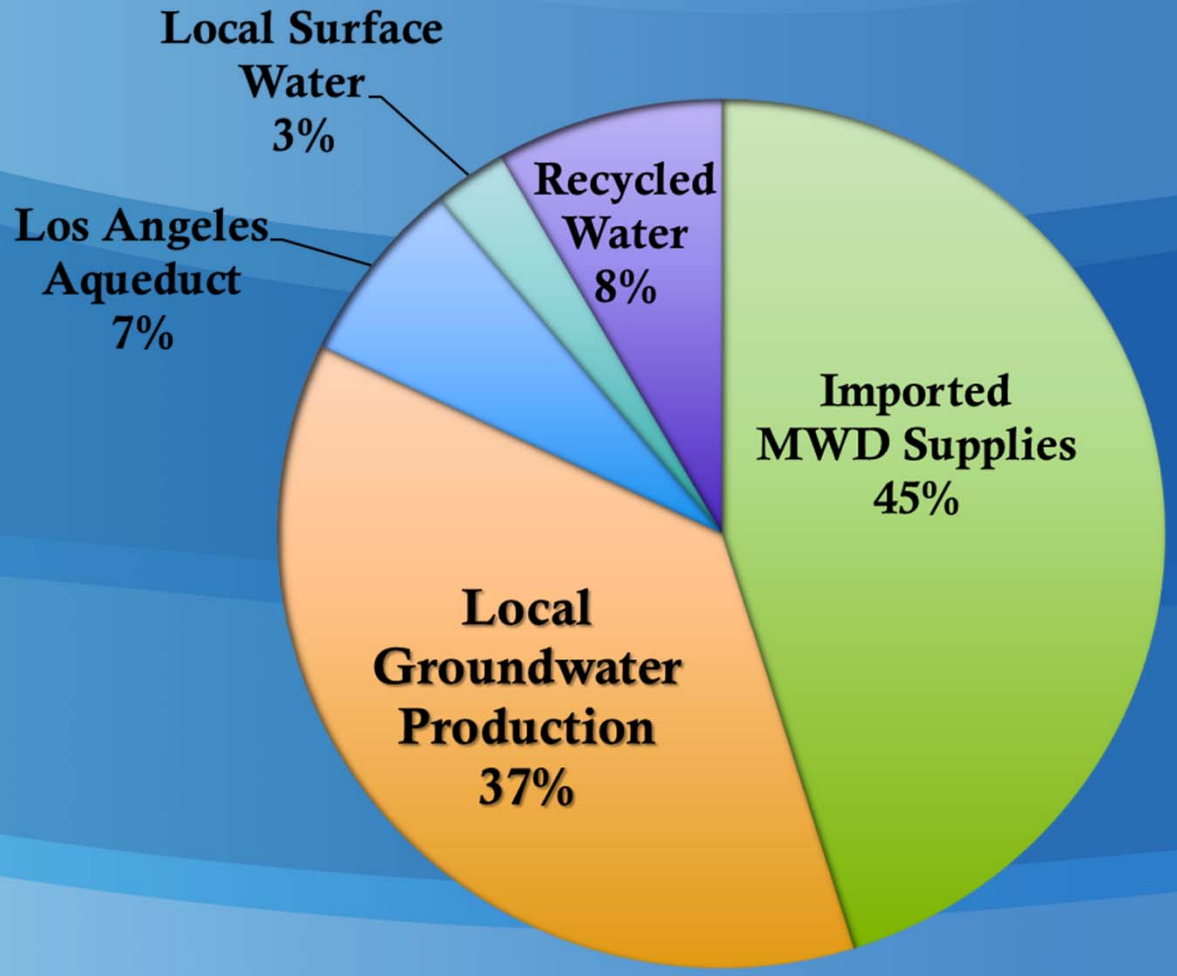
Habitat and Environment

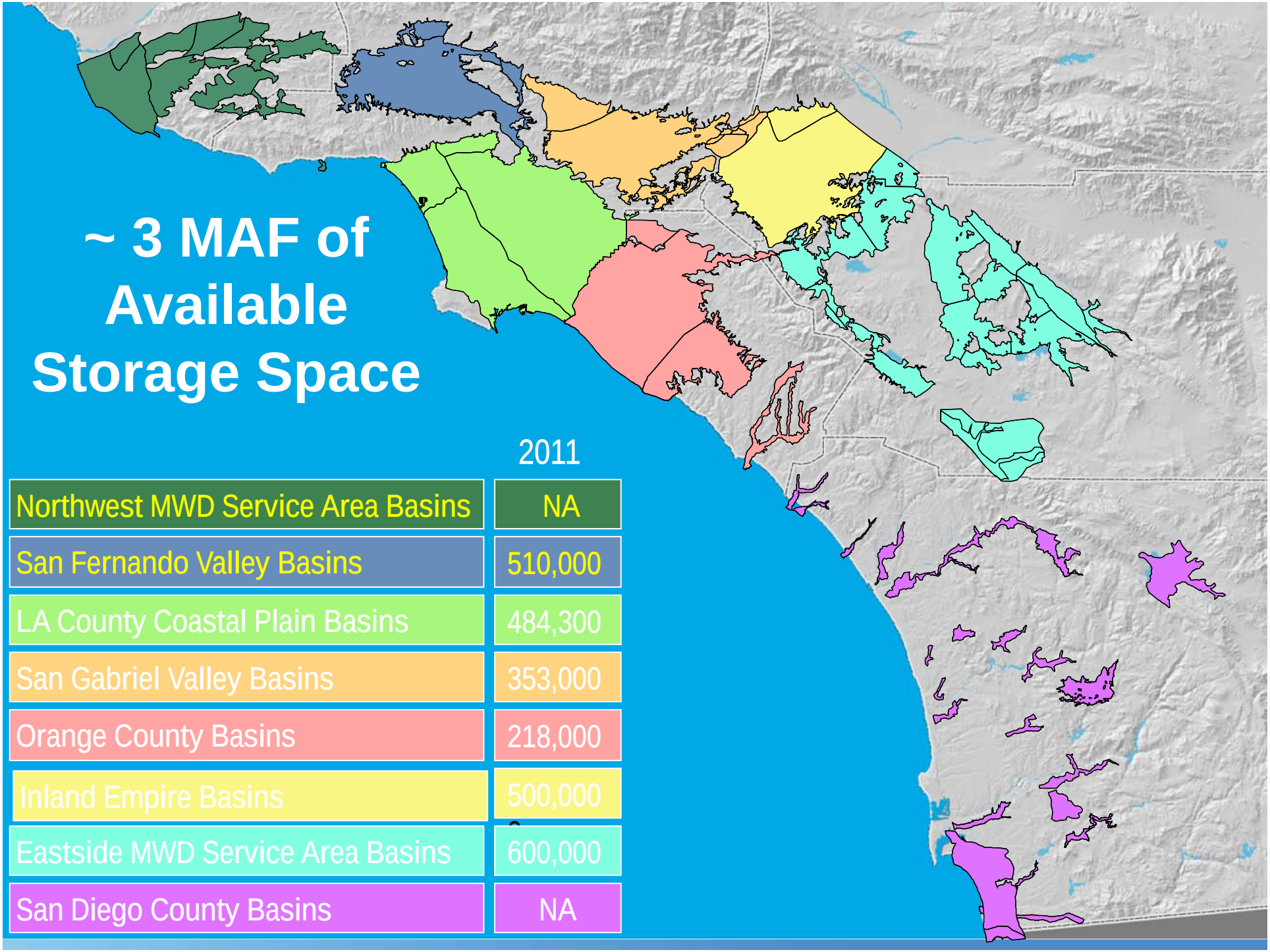
Recreation Trails and Education



CY 2010 Service Area Water Supplies

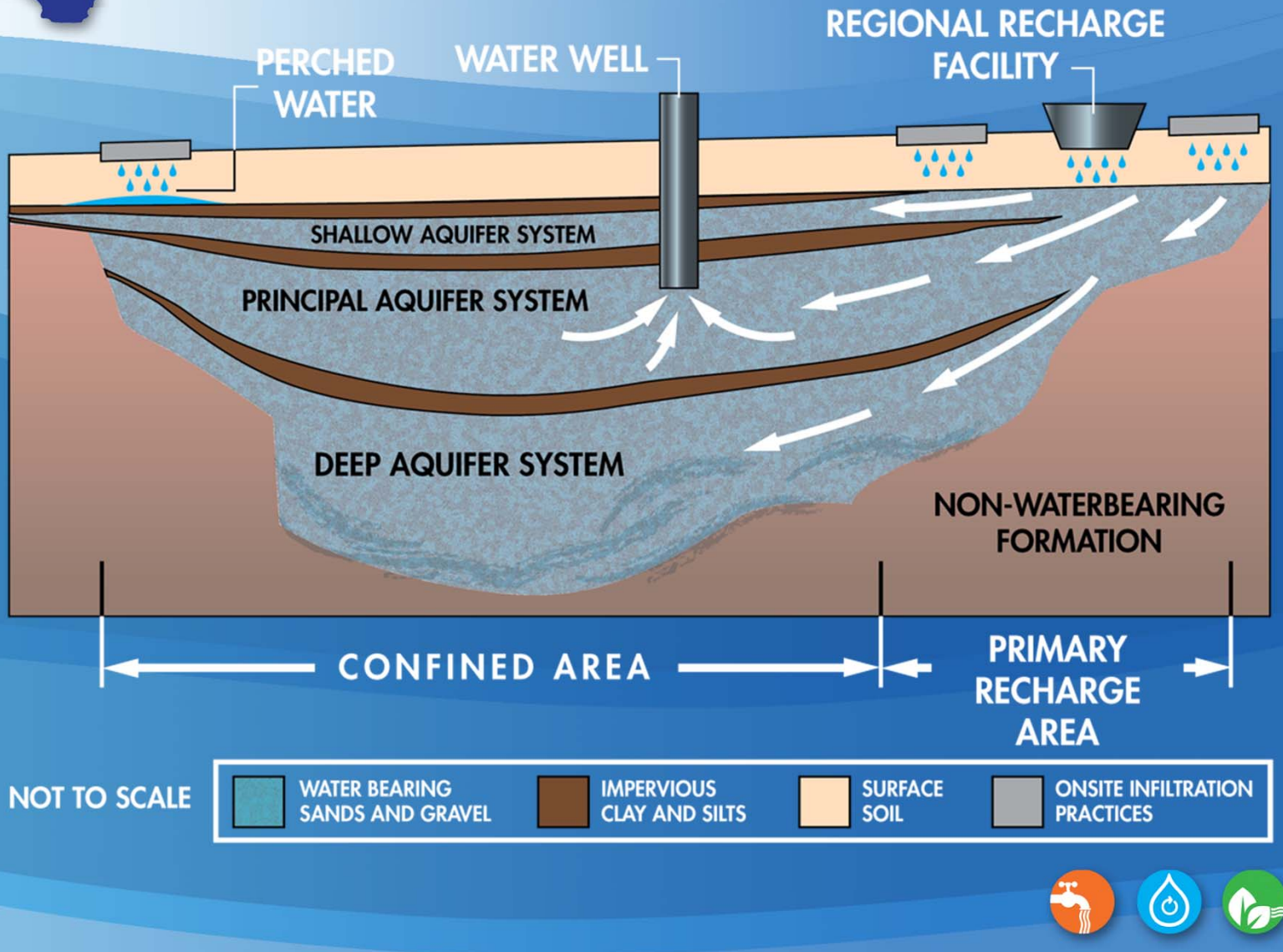
Total Retail Demand: 3.6 MAF





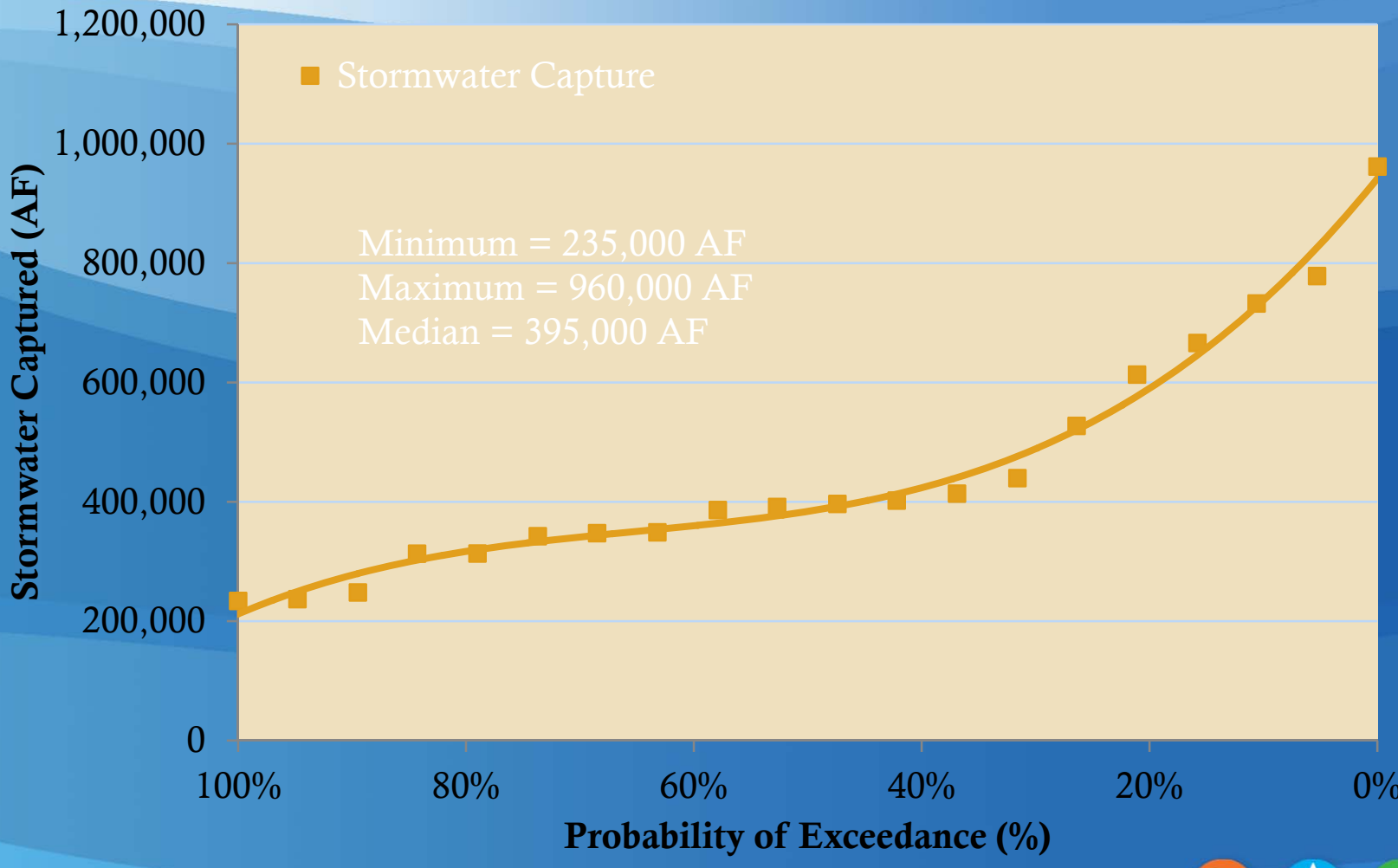
	2011
Northwest MWD Service Area Basins	NA
San Fernando Valley Basins	510,000
LA County Coastal Plain Basins	484,300
San Gabriel Valley Basins	353,000
Orange County Basins	218,000
Inland Empire Basins	500,000
Eastside MWD Service Area Basins	600,000
San Diego County Basins	NA

Deep Percolation of Stormwater



Source: SCWC Stormwater White Paper

Stormwater Capture in MWD Area



SCWC Stormwater Workshop

Workshop on June 28

- 110 participants from throughout the region plus experts from state and federal agencies
- Technical papers on regional and LID stormwater capture project data
- Economic and financing issues addressed

Stormwater:
A Smart & Sensible Solution

- 450,000 acre-feet of stormwater is currently captured and recharged into So Cal groundwater basins per year (enough water for 3 million people/year)
- Billions of gallons are lost every year because we don't have enough stormwater capture systems
- Capturing stormwater is viable, cost-effective and environmentally preferable
- Capturing stormwater provides numerous benefits, including:
  - Creating more local water supplies
  - Reducing polluted run-off
  - Providing a cost-effective water supply option

Stormwater Capture Types

- Individual
- Neighborhood
- Large Scale

Small Scale Projects

Whitnall Highway Power Line Easement Project

- LADWP Project.
- Conceptual plan being developed.
- Project expected to increase groundwater recharge by more than 110 acre-feet per year.
- Goal is to capture and infiltrate stormwater beneath LADWP power lines using swales and ponds.
- Designs expected in 2013.

Courtesy of Los Angeles Department of Water and Power

Large Scale Projects

Pacoima Spreading Grounds Project

- LACFCD/LADWP Project.
- Estimated cost $32 million.
- Increased recharge by 2,000 acre-feet annually.
- Designs expected in late 2012.

Lopez Spreading Grounds Project

- LACFCD/LADWP Project.
- Increased recharge by 750 acre-feet annually.
- Designs expected in 2013.
- Estimated cost $8 million.

Courtesy of Los Angeles Department of Water and Power

Inventory of Stormwater Projects in Southern California

- Collaborating with agencies and key stakeholders throughout the region
- Developing a database on LID and regional stormwater projects (built or planned)
- Using IRWMPs and other planning studies to develop regional assessment of potential stormwater capture
- Complete by Spring 2013 (web page: www.socalwater.org)

Types of Projects in Database

- Site specific LID – rain garden (NO)
- Site specific – capture and reuse (NO)
- Neighborhood/Streetscape/Greenway (YES)
- Gravel Pit Repurposing (YES)
- Spreading Ground/ Basin Enhancement (YES

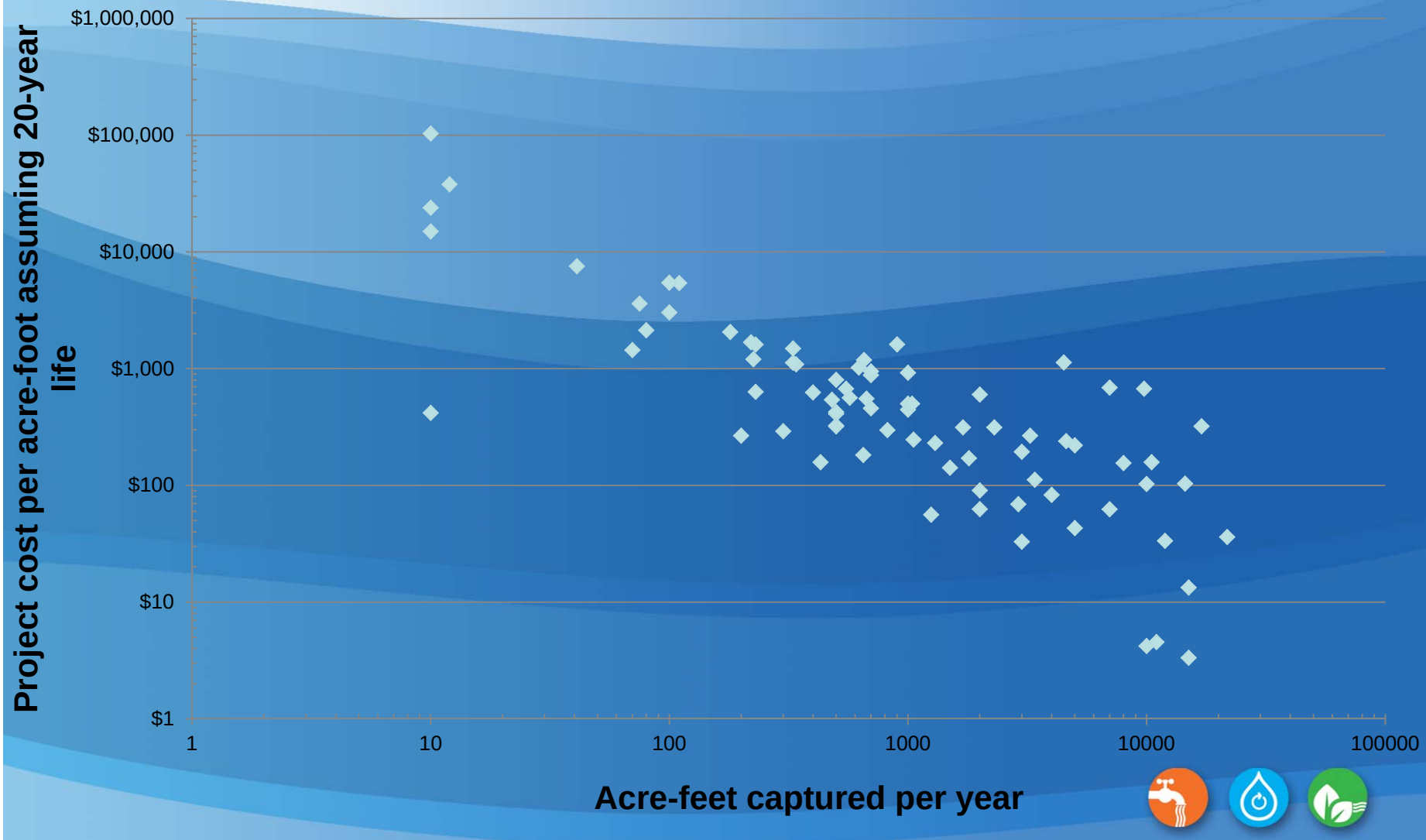
Quick glance at cost and capture volume reported

- Total capital cost: $800m - $1.2b
- Total annual O&M cost: $10 - $15m
- Total annual volume: 200 - 300k AFY

Note: All costs and volume data were self-reported and have not been verifi

Cost/AF versus AF captured

illustrates the expected economies of scale



Next Steps

- Task Force Discussion
  - Benefits of most cost effective projects
  - Relations to MS4 permit “Enhanced Watershed Plans’
  - Workshop on June 18
  - Upper District Pilot Demo Project with CWF

Recommendations

- Guidebook on MS 4 and Stormwater Capture Case St

Conclusions & Recommendations

- Need for ongoing technical dialogue on regional and LID coordinated stormwater MS4 and supply strategies
- Take advantage of Army Corps of Engineers dams and other facilities
- Continue the ongoing collaborative dialogue with Regional Boards, SWRCB and EPA on strategies to conserve and capture stormwater
- Educate the public and stakeholders on the importance and necessity of capturing stormwater