



The Metropolitan Water District of
Southern California

Bay-Delta Conservation Plan

May 30, 2013

Metropolitan Water District of Southern California

Regional Water Wholesaler to 6 counties

- 5,200 square miles

26 Member Agencies

~18 million residents

Regional economy: ~\$1 trillion

Estimated Retail Demand:

- 4 million acre-feet
- Provide about ½ of retail demands



Sources of Water for Southern California



Importance of Delta



The Bay-Delta

Hub of California's Water

Bay Area – 33%

Some regions up to 100% dependent

Central Valley – 23 to 90%

State Water Project

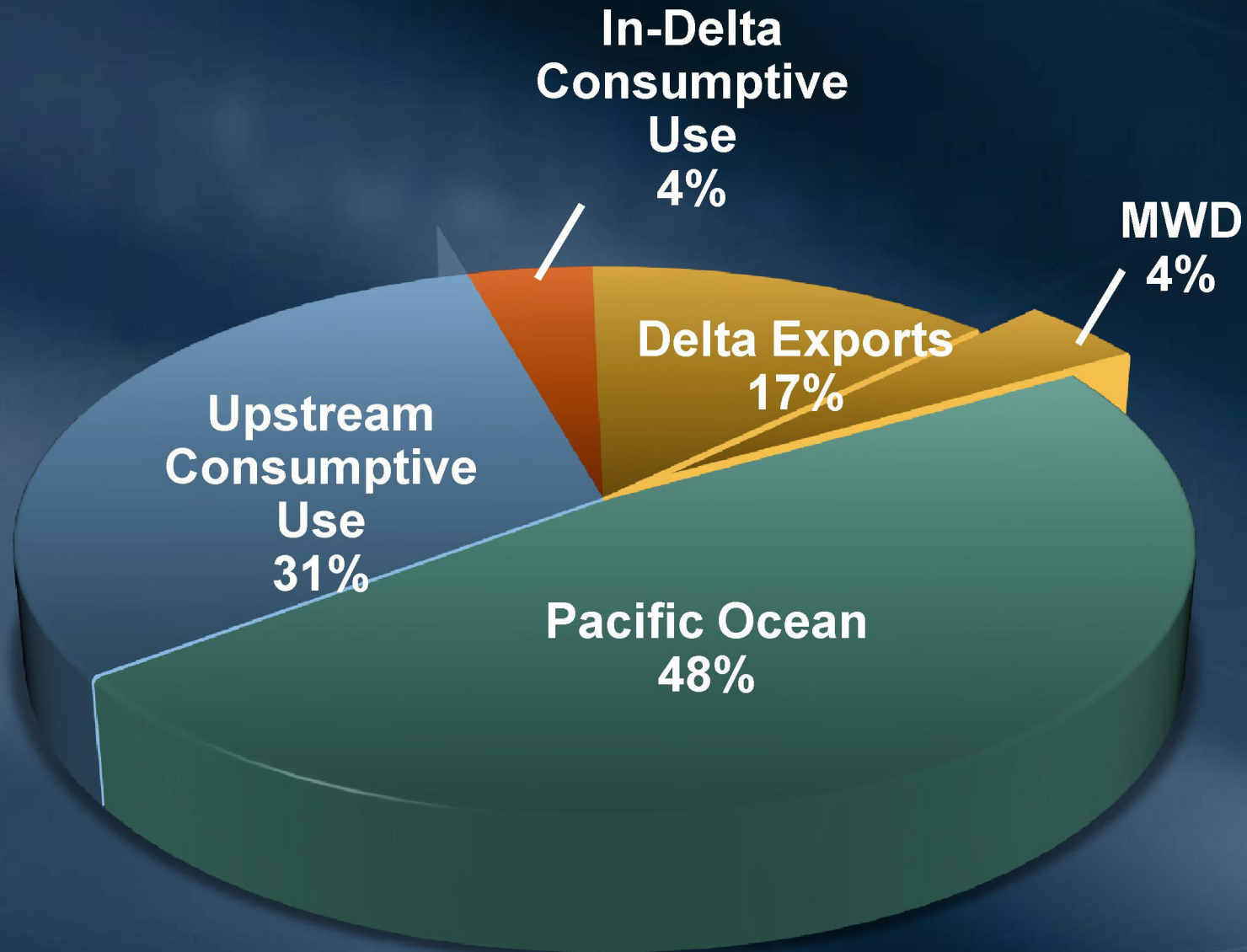
Los Angeles Aqueduct

Colorado River Aqueduct

Local

Southern Cal – 30%

Water Flowing Through the Delta



Source: Governor's Delta Vision Report (Estimated total annual runoff 32.85 maf)

We Have Diverse Supplies



Southern California's Water Portfolio

25% Colorado River supplies

30% State Water Project
(flowing through the Delta)

45% Local Supplies

- Los Angeles Aqueduct
- Conservation
- Recycling
- Groundwater
- Desalination



Metropolitan's Integrated Resource Plan

Blueprint for Adapting to Change

Water Use Efficiency

- 20% Reduction in Per-Capita Water Use

Local Resources

- Develop Incentives and Partnerships
- Implement Foundational Actions

SWP

- Delta Improvements for Reliability

CRA

- Develop Dry-Year Supply Programs

Metropolitan's Integrated Resource Plan

Blueprint for Adapting to Change

Water Use

• 20% Reduction in Per Capita Water

What Does This Mean?

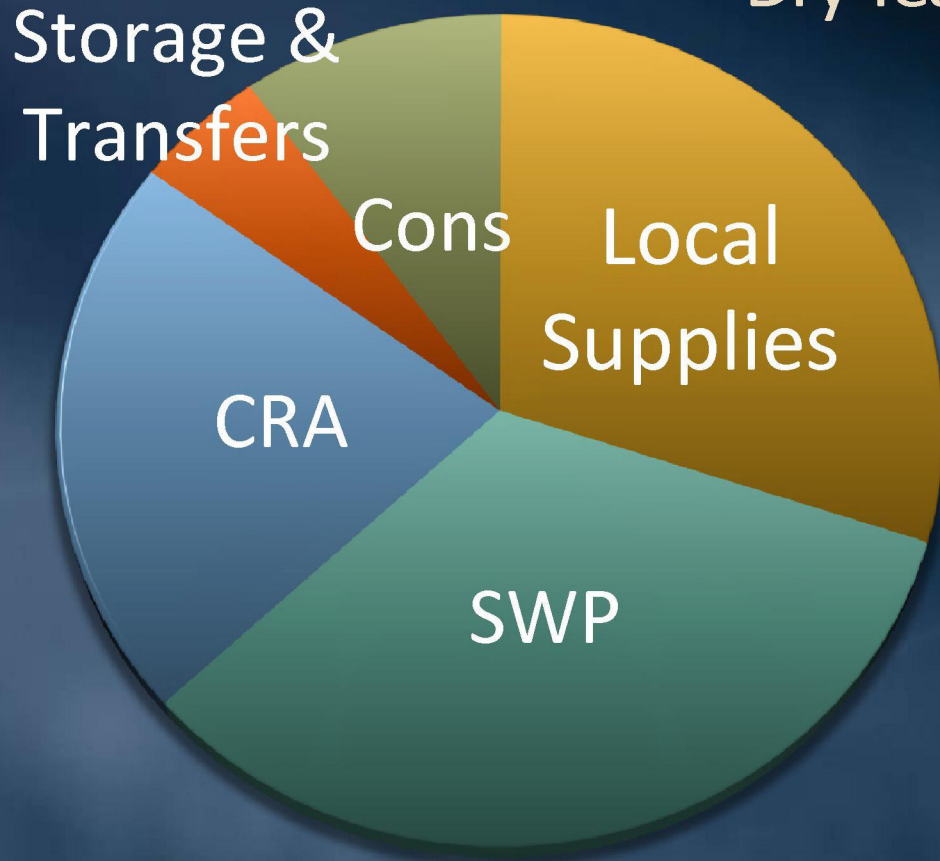
- Stabilize Imported Supplies
- Increase Efficiency and Local Resources

CRA

- Develop Dry-Year Supply Programs

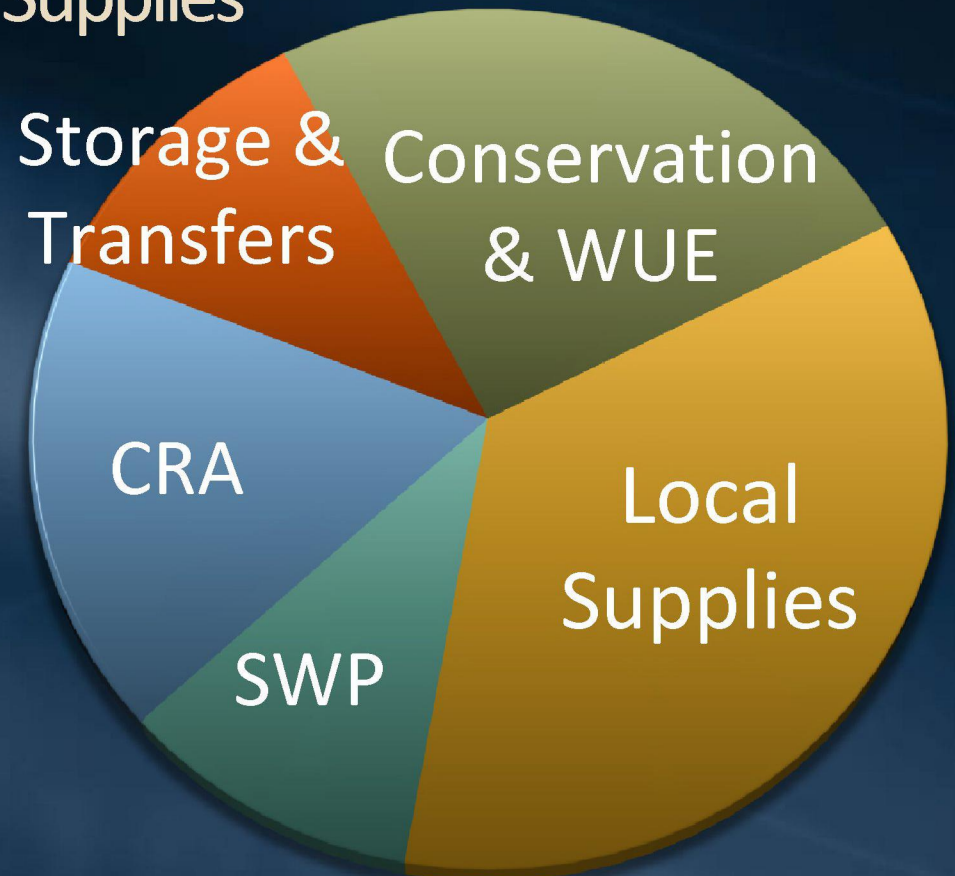
Diversification of Water Portfolio

Dry Year Supplies



Early 1990's

Heavy dependence on imported supply and SWP Diversions



2010 IRP Strategy

Emphasis on Conservation, Local Supplies, and Storage & Transfers

Metropolitan's Storage Programs

Central Valley/SWP Storage

San Luis Carryover

Semitropic

Arvin-Edison

Kern Delta

Mojave

CRA Storage

Advance Delivery

Lake Mead ICS

Local Storage

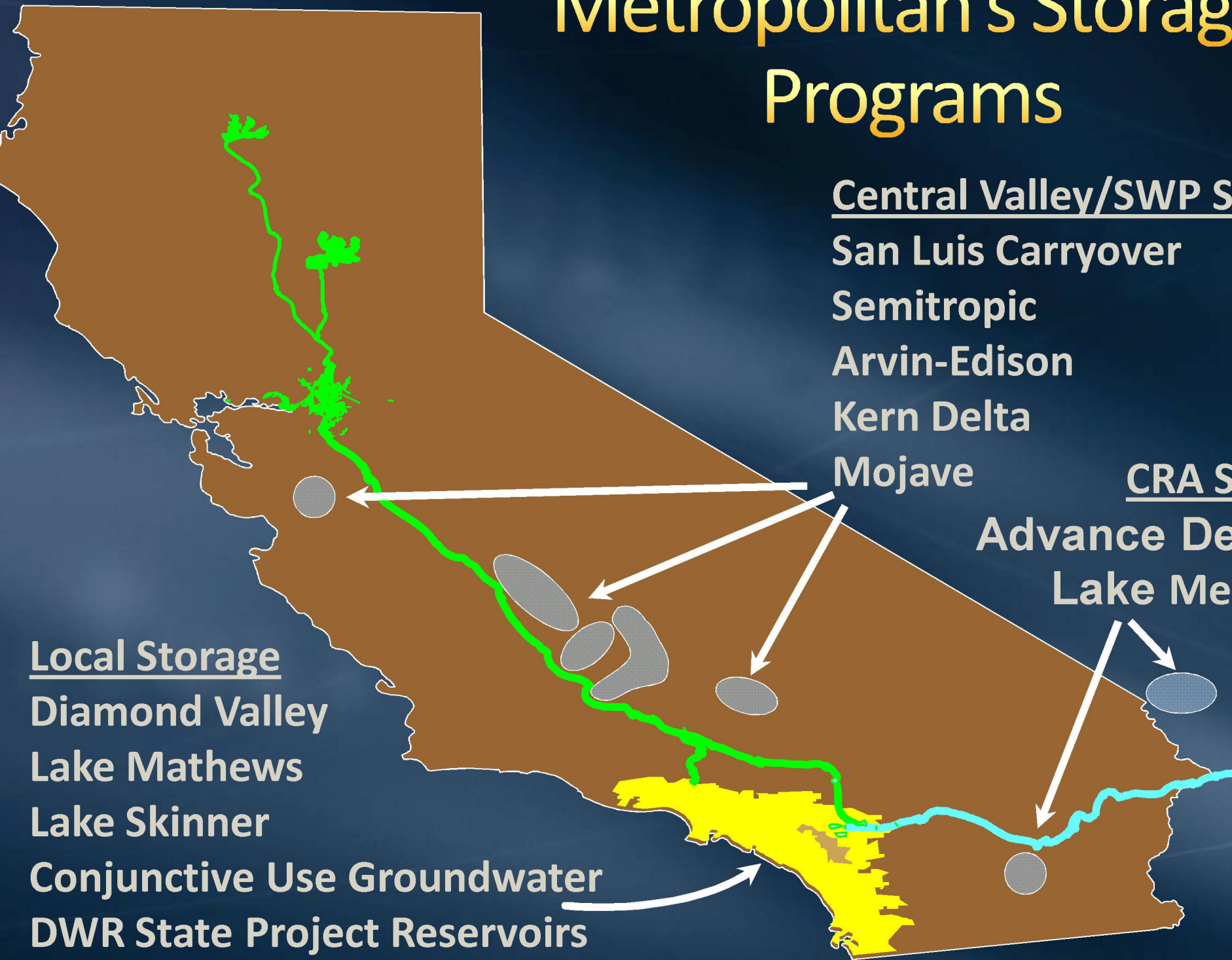
Diamond Valley

Lake Mathews

Lake Skinner

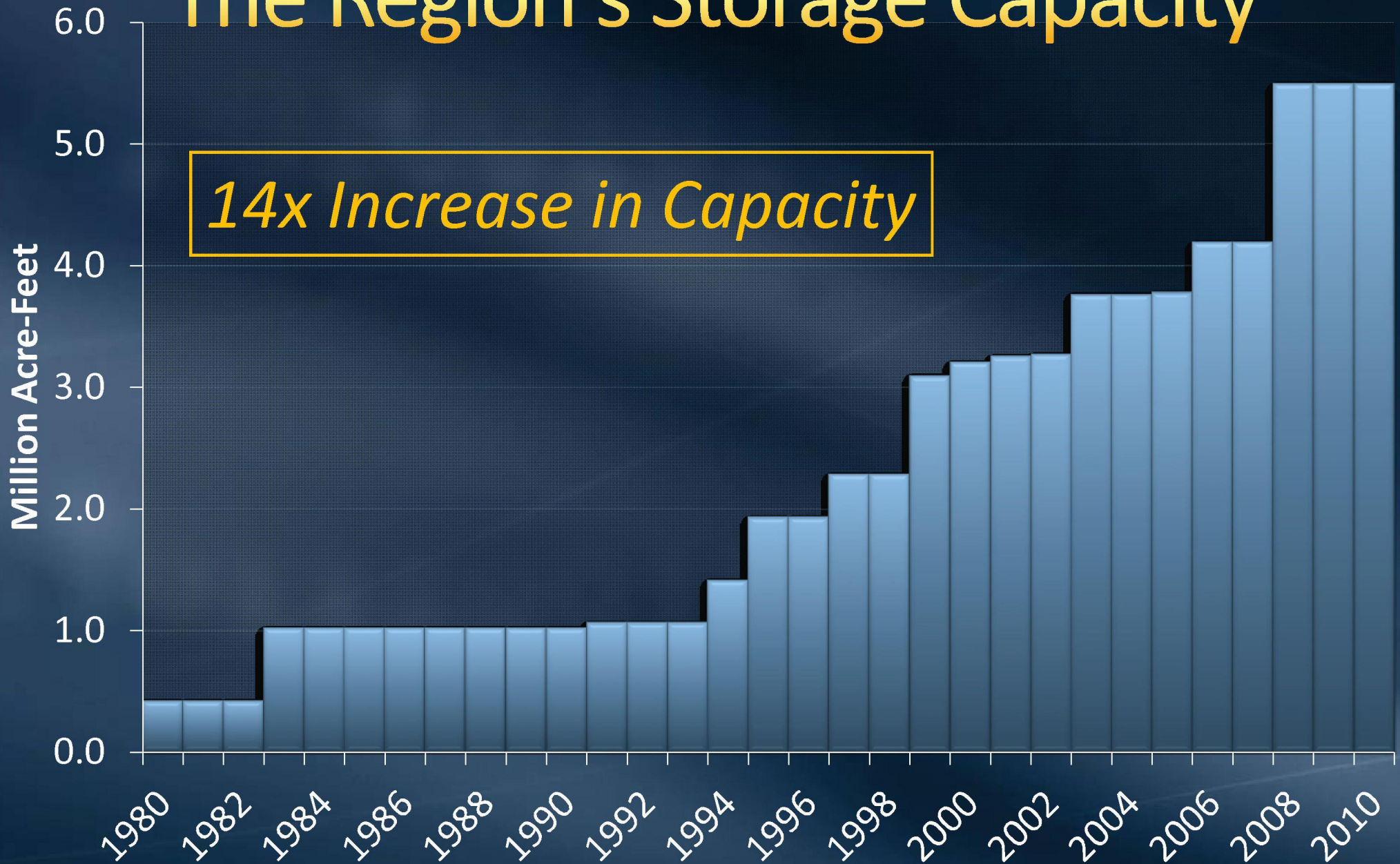
Conjunctive Use Groundwater

DWR State Project Reservoirs



Metropolitan Has Increased The Region's Storage Capacity

14x Increase in Capacity





Regional Investments

Reducing Reliance on Imports

	Conservation:	900,000 af/yr
	Recycling:	335,000 af/yr
	Groundwater Recovery:	111,000 af/yr
	Seawater:	46,000 af/yr (planned)

*Conservation represents regional actions both active & passive
Recycling & groundwater represents total regional production 2012 (MWD & member agency)
Seawater represents 3 planned local projects*

Cost Comparison (per acre-foot)

Metropolitan is committed to meeting future additional water supply needs through local resources and conservation

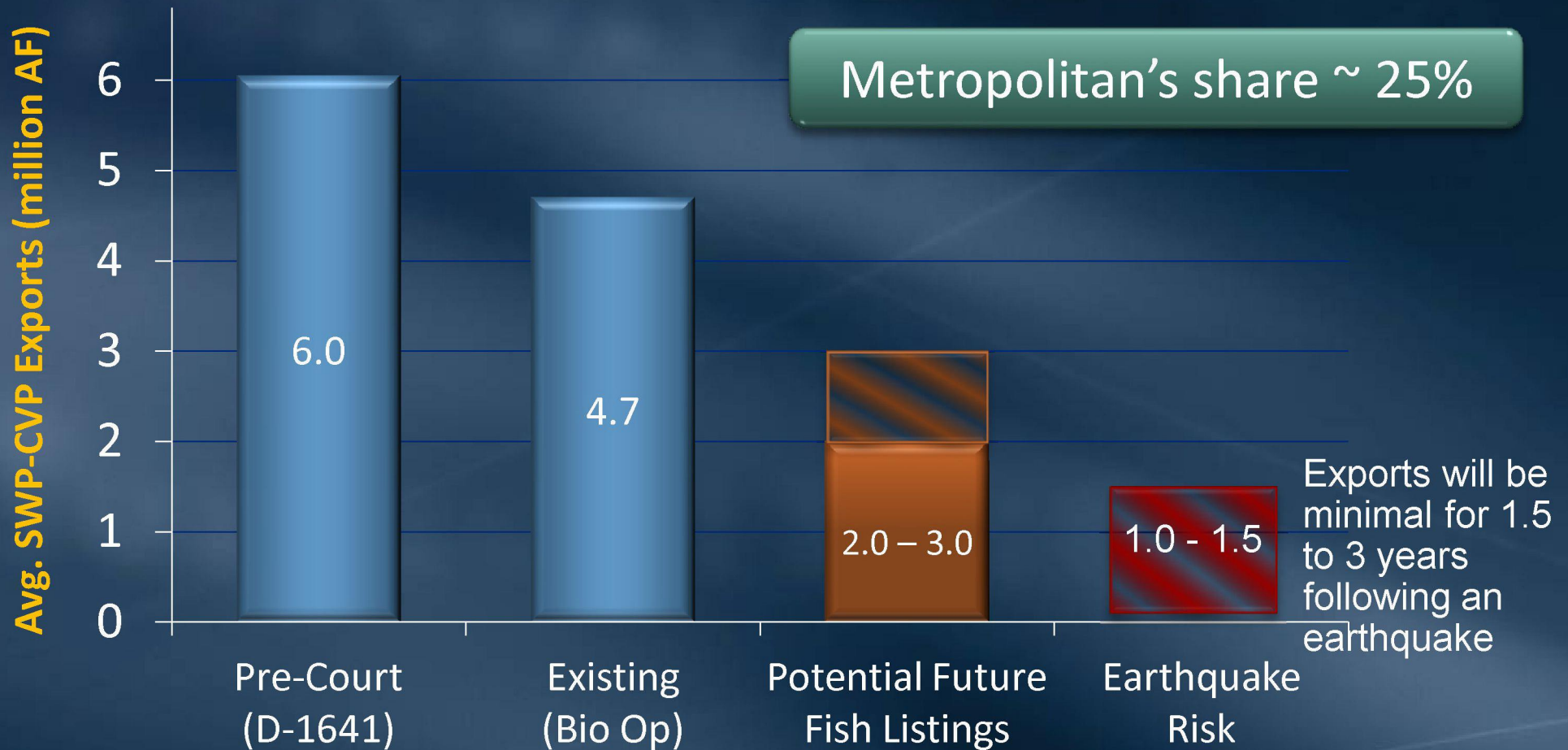


Benefits and Costs Of Bay-Delta Conservation Plan



Delta Conveyance Improvements

SWP & CVP Reliability South Exports Only



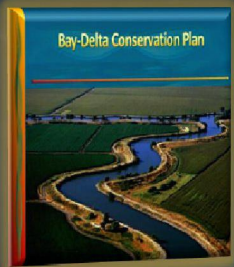
A topographic map of Southern California showing various water basins. The basins are labeled with names such as Las Posas, Sylmar, East San Fernando, Verdugo, Raymond, Six Basins, Cucamonga, Main San Gabriel, Chino, Orange County, San Jacinto, Elsinore, Upper San Juan, San Mateo & San Onofre, Warner Valley, Central, and West Coast. Several basins are highlighted in a dark green color, including Las Posas, Sylmar, East San Fernando, Raymond, Six Basins, Cucamonga, Main San Gabriel, Chino, Orange County, San Jacinto, Elsinore, and Warner Valley. The map also shows the coastline and the Pacific Ocean to the west.

Water Quality & Salinity Management

Objectives

- Improve export quality to meet Public Health standards & reduce treatment costs
 - Support actions to minimize salinity imports
 - Meet 500 mg/l blending goal
- Some Basin Plans have low TDS objectives
- Could restrict extended recharge of high salinity Colorado River water *

* Some of the highlighted basins do not currently receive MWD recharge supplies



BDCP: Preliminary Cost Analysis

Improvements	Capital	Annual O&M	Funding Source
Conveyance	\$14 billion	\$83 million	Water Contractors
Eco-Restoration & Other Stressors	\$3.6 billion	\$46 million	Fed/State/Water Contractors/Other

Users pay – new conveyance & associated mitigation

Beneficiaries pay – habitat conservation & other state-wide benefits

Average cost for Southern Californians ~ \$5 - 6/month per household

Metropolitan's share is approximately 25 percent

The \$14 billion estimate per the Governor's announcement (July 25, 2012)

Other cost information from Dec-2010 BDCP document

Capital Cost Comparisons

BDCP Delta Facilities

Cost	Population Served	Per Capita Cost
\$14 billion <i>(Per 7/25 Announcement)</i>	25 million <i>(3 million acres of Ag)</i>	\$560

San Francisco PUC Hetch Hetchy Project

- Repairs to protect against future seismic events, and to meet current building codes and drinking water regulations

Cost	Population Served	Per Capita Cost
\$4.6 billion	2.5 million	\$1,840

Contra Costa Water District's Los Vaqueros Project

- Improves water quality and provides emergency storage

Cost	Population Served	Per Capita Cost
\$570 million	550,000	\$1,036

Regional Cost Comparisons

MWD share of BDCP Cost

Cost	Population Served	Per Capita Cost
\$3.5 billion	19 million	\$184

MWD Diamond Valley Reservoir/Inland Feeder projects

- Primarily an emergency storage facility but also provides drought and water quality benefits

Cost	Population Served	Per Capita Cost
\$3.1 billion	18 million	\$172

SDCWA Emergency Storage Project

- Enhances reliability of the water supply of San Diego in the event of seismic disruption

Cost	Population Served	Per Capita Cost
\$1.5 billion	2.8 million	\$536

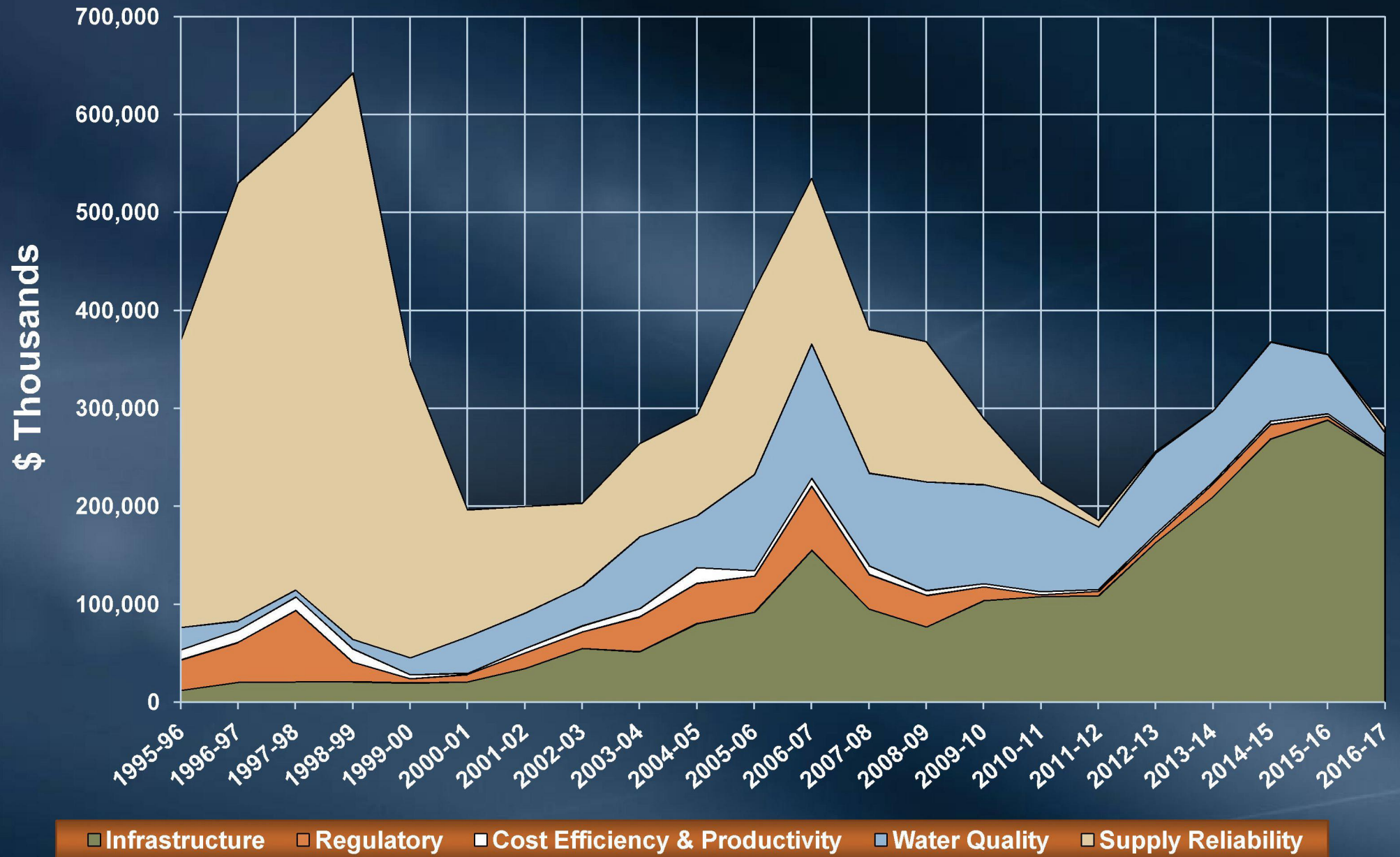
Summary

- Delta is critical to California's water supply
- Southern California is committed to conservation and local supplies for future growth and diversification
 - 1.1 MAF of conservation and local resources will be developed to meet future needs
- Storage has been developed to manage “big gulp/little sip”
- Stable imported supplies are needed for reliability



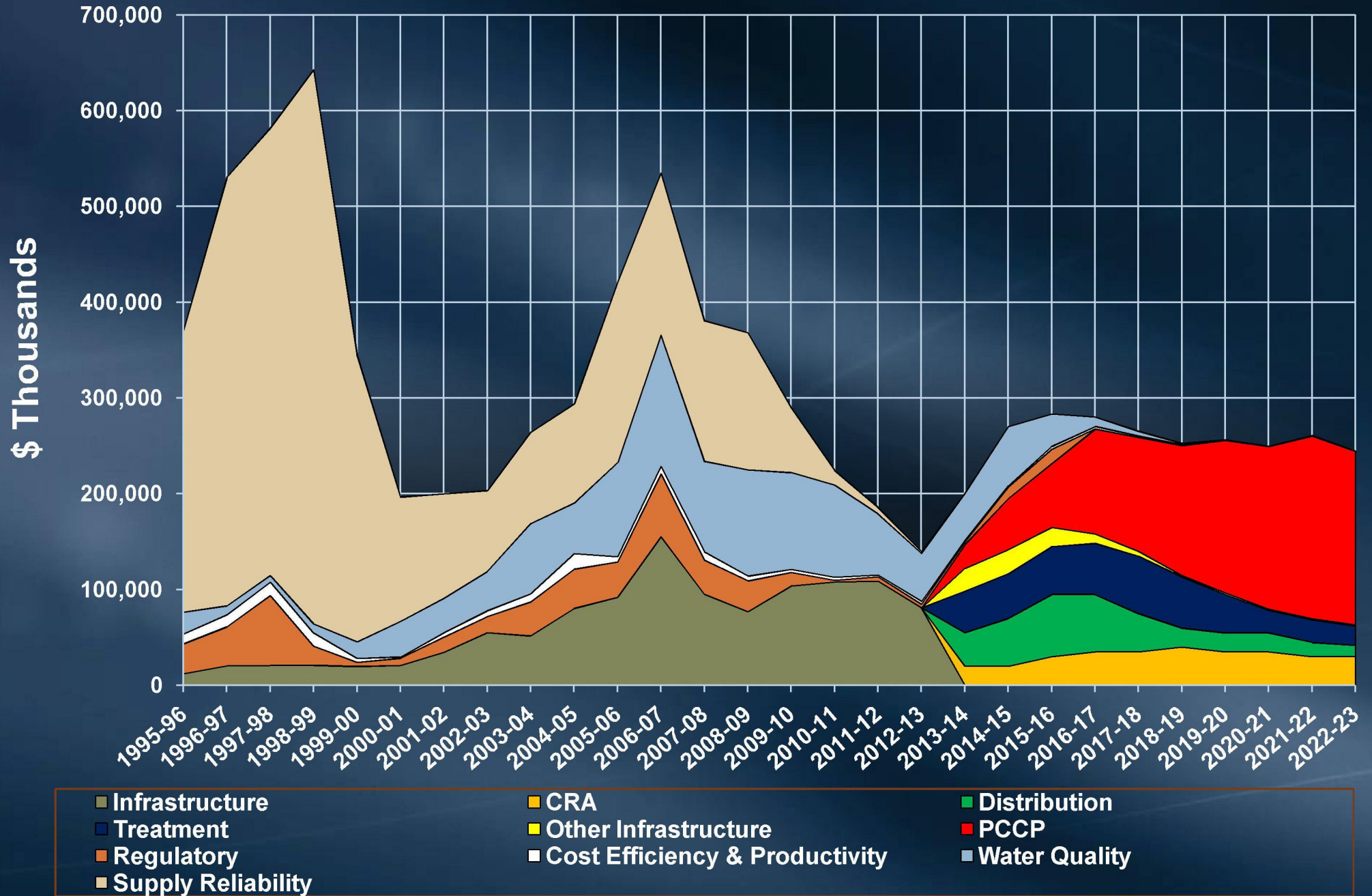
Capital Investment Plan FY 12/13 – 13/14

20 - Year Period: 1995/96 – 2016/17



Capital Investment Plan FY 13/14 - Update

1995/96 – 2022/2023



Major Project Cost Projections

(not including long-term PCCP Rehab)

Project	Estimate
Weymouth ORP	\$ 119 M
Lakeview Pipeline	\$ 82 M
Diemer Basin Rehab.	\$ 78 M
Jensen Electrical System Upgrades	\$ 45 M
Diemer WWRP Rehab.	\$ 43 M
Etiwanda Pipeline Relining	\$ 34 M
Orange County Feeder Relining	\$ 33 M
Mills Solids Handling (Thickeners)	\$ 29 M
CUF Chlorine Containment	\$ 28 M
Weymouth Filter Rehab.	\$ 27 M
CRA Main Pump Overhaul	\$ 26 M
Weymouth Filter Valve Replacement	\$ 24 M
Palos Verdes Reservoir Cover/Lining	\$ 24 M

Major Project Cost Projections

(not including long-term PCCP Rehab)

Project	Estimate
Second Lower Feeder Urgent Rehab	\$ 23 M
CRA Pump Motor Rehab	\$ 21 M
Weymouth Basin 5-8 Rehab	\$ 20 M
Wadsworth Control Upgrade	\$ 20 M
Mills Electrical System Upgrades	\$ 20 M
Diemer Electrical System Upgrades – II	\$ 18 M
Iron Mtn. Tunnel Rehab.	\$ 18 M
Diemer Filter Valve Replacement	\$ 18 M
Weymouth Basin 1-2 Rehab	\$ 16 M
Yorba Linda HEP Modifications	\$ 15 M
CRA Discharge Valve Rehab	\$ 15 M
Jensen Filter Surface Wash Upgrades	\$ 14 M
Weymouth Admin. Bldg. Seismic Upgrade	\$ 14 M

CIP 2014/2015 Schedule

Month

Activity

August	Submit Project Proposals
September - November	Evaluations conducted
September	Site Visits – Treatment Plants
September – December	Update Schedules/Cash Flows
October	Preliminary list of CIP Programs
October	Review w/PM's
November	Update to CIP Steering Committee
December	Draft CIP Appendix
January	Budgets finalized for rate and budget letter
