

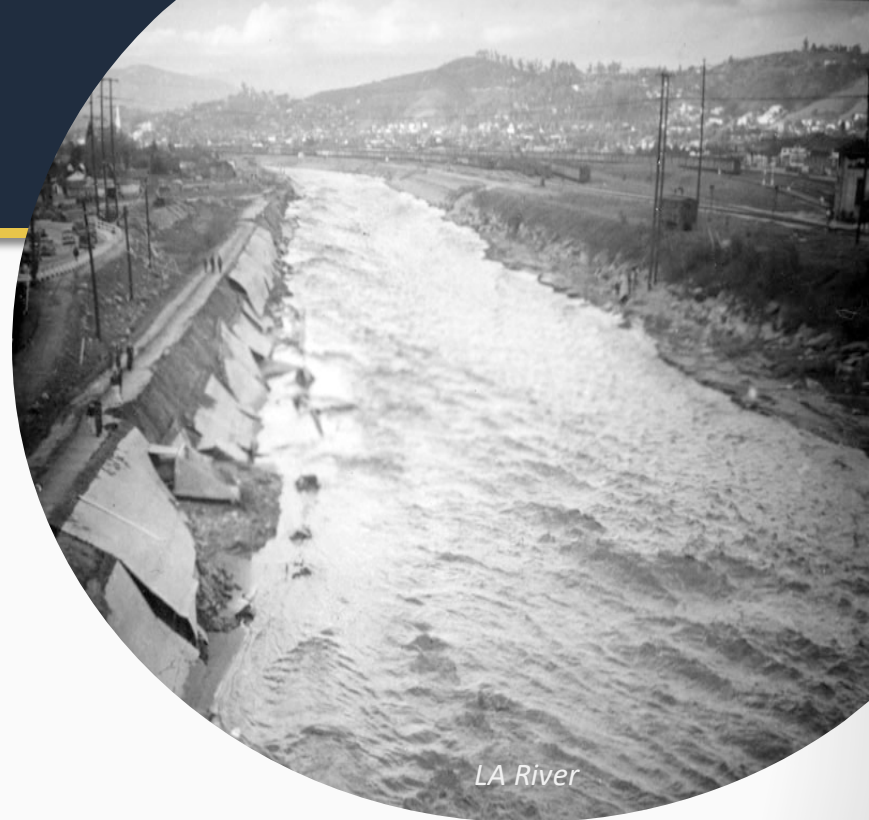


# Stormwater Capture

California Water Commission - April 17, 2019

# Presentation Outline

- LACFCD overview
- Stormwater capture and recharge
- Infrastructure improvements
- Opportunities and challenges



# Los Angeles County Flood Control District

Formed in 1915 with Dual Mission

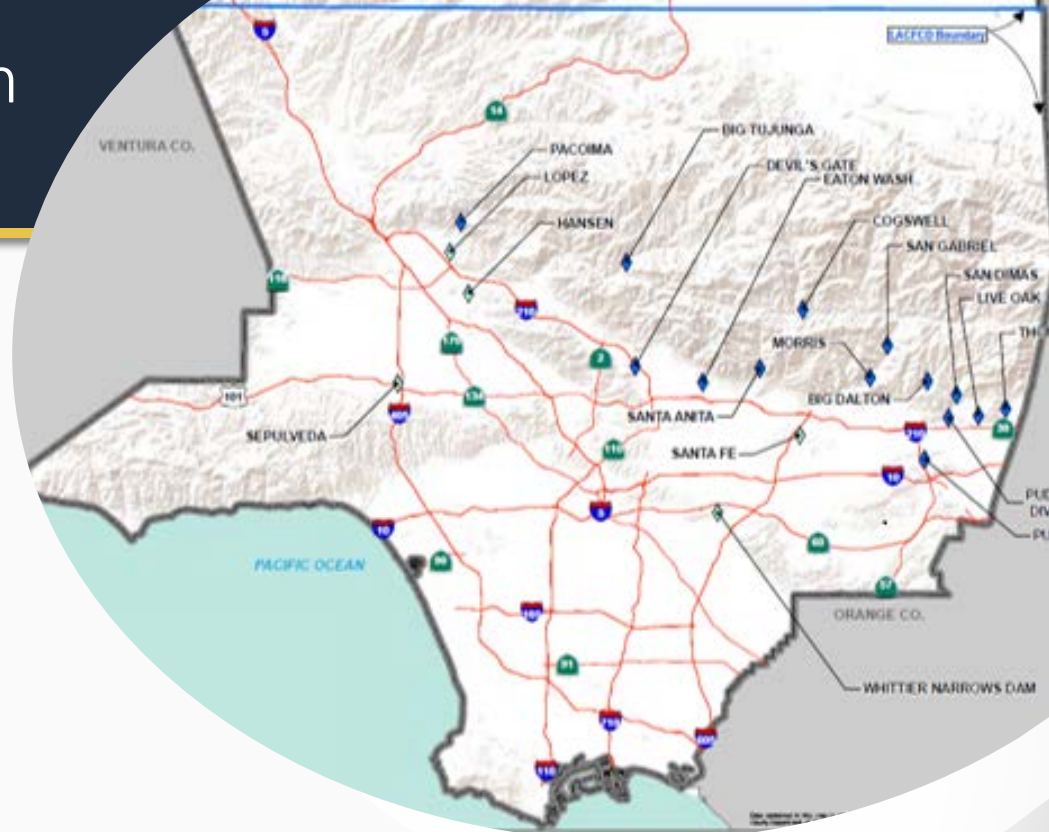
- Reduce flood risk by providing flood control protection
- Capture and conserve stormwater for local water supply



*LA River*

# Water Supply Conservation Infrastructure

- 14 major dams
- 500 miles open channels
- 26 spreading grounds
- Seawater intrusion barriers



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# Dam Operations



*Big Tujunga Dam*



*San Gabriel Dam*



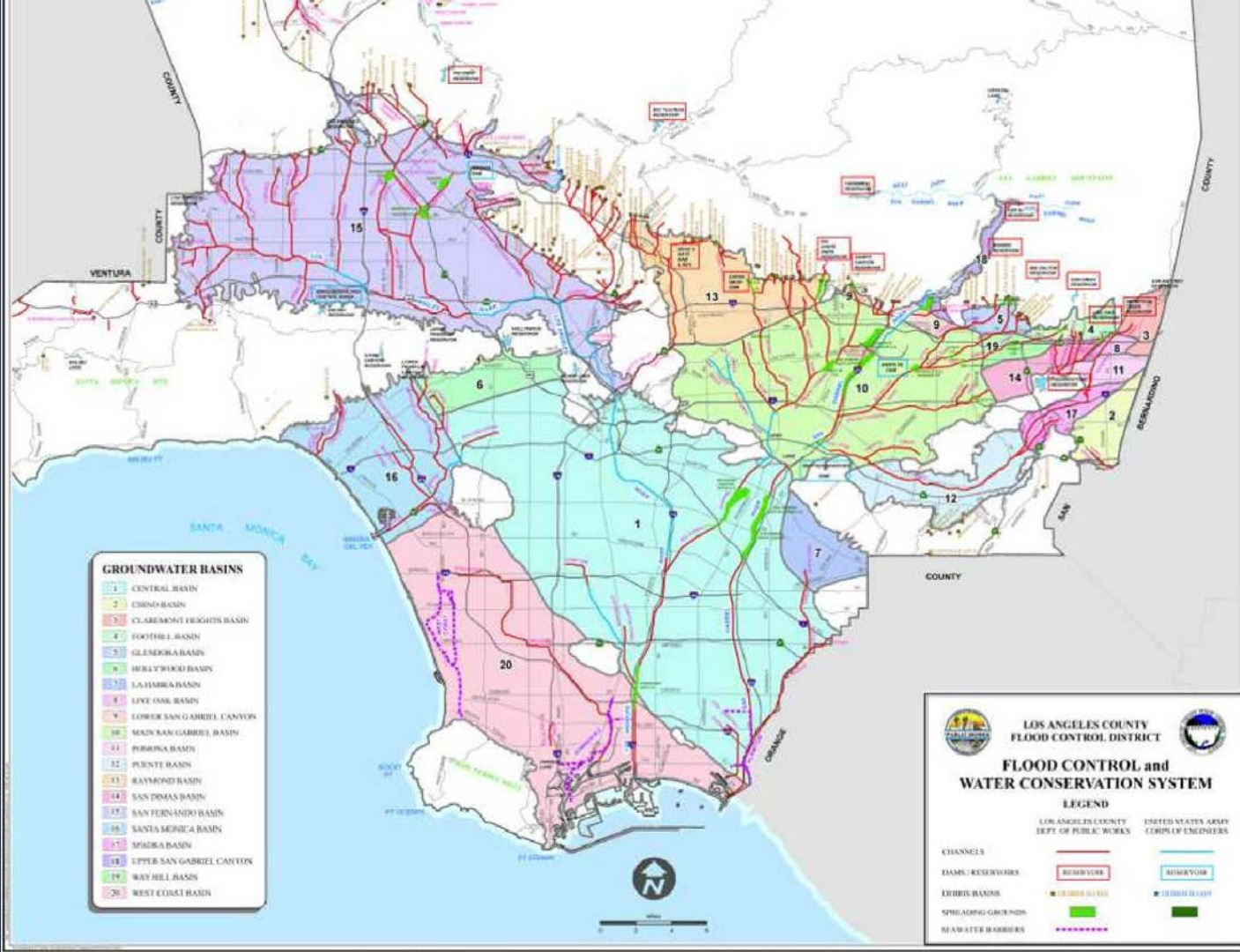
# Soft-Bottom Channels & Diversions



Spreading Grounds (dry and filled)

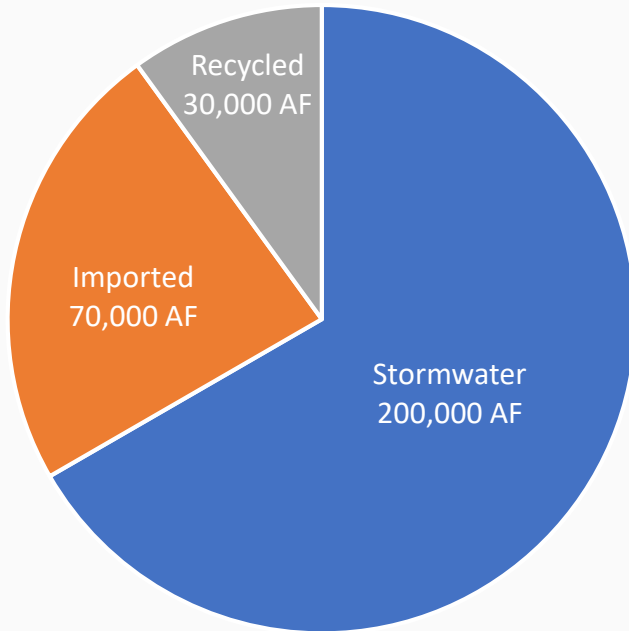


# Adjudicated Groundwater Basins



# Spreading Grounds Intake

## Annual Average



# LA County Water Supply

- Two-third imported
- One-third local supply



Map from City of LA DWP

# Infrastructure Improvements to Enhance Stormwater Capture and Recharge

- Improvements to Dams Infrastructure
- Improvements to Spreading Grounds
- Enhancements to Seawater Barriers
- Outreach/Cooperation with Agencies



# Tujunga Dam Seismic Retrofit Project

- Water Conservation
  - 4,500 AF/yr on average
  - Additional 705 AF capacity
- Funding \$88.5M
  - \$17.4M - State OES/FEMA Hazard Mitigation Grant
  - \$6.6M - State DWR Prop 13 Groundwater Storage Grant
  - \$9M – City of LADWP
- Constructed 2011



# Tujunga Spreading Grounds Improvement

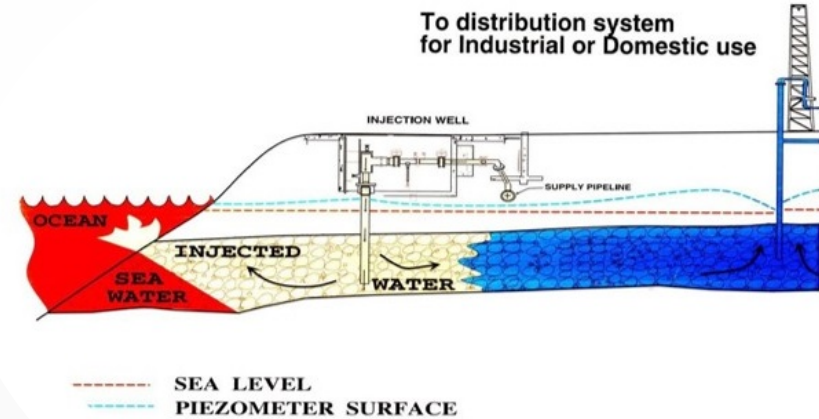
- Increase capacity by 12,000 AF/yr
- Total project cost = \$50M
  - \$6.3M Public Works
  - \$3M Prop 84, IRWM
  - \$40M LADWP
- Construction 2016-20



Tujunga Spreading Grounds

# Seawater Barriers

- 3 seawater intrusion barriers
- Over 300 injection wells
- Transition from potable to 100% recycled water



# Integrated Regional Water Management

- LACFCD chairs
  - Greater LA County IRWM
  - Antelope Valley IRWM
- \$127M grant funding for 74 projects
- Regional coordination
- Encourage projects in disadvantaged communities



LA River & Tujunga Wash Confluence



# Looking Ahead – Additional Opportunities

- Potential to triple stormwater capture
  - U.S. Dept. of the Interior, Bureau of Reclamation – *2016 LA Basin Study*
  - City of LA – *pLAN*
- Implementation of Safe Clean Water Program



Rio Hondo Channel

# Regional Issue ... Regional Approach

CAPTURE  
CLEAN  
CONSERVE



1

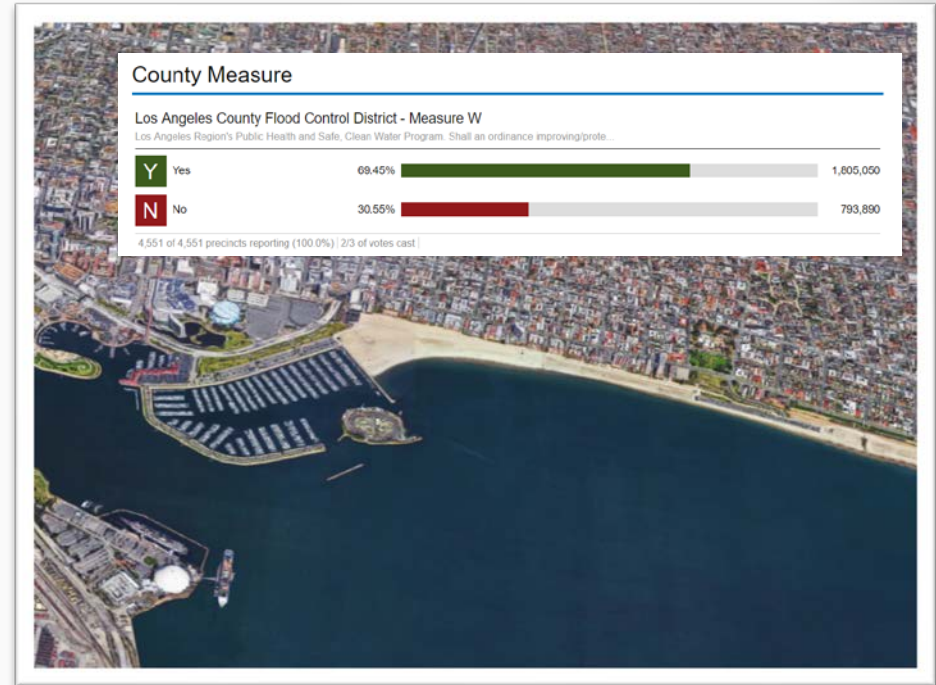
Improve Water Quality

2

Increase Local  
Water Supply

3

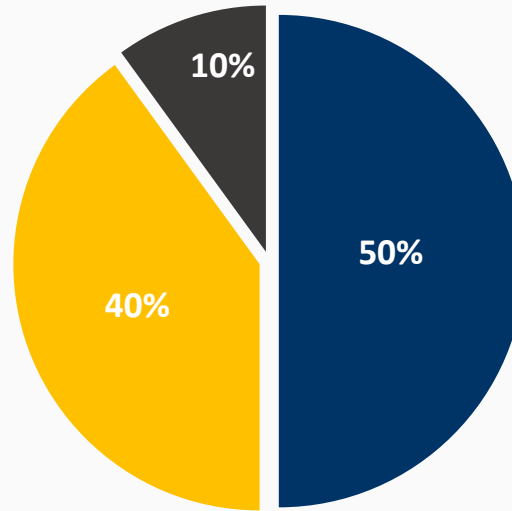
Enhance  
Communities




# Safe Clean Water Program

## Parcel tax

- 2.5 cents per square foot of impermeable area
- Watershed-based projects
- Local & Regional Projects



\$300 million/year 

- Regional Program  
\$120M/year
- Municipal Program  
\$30M/year
- FCD Program  
\$150M/year

# Projects Types



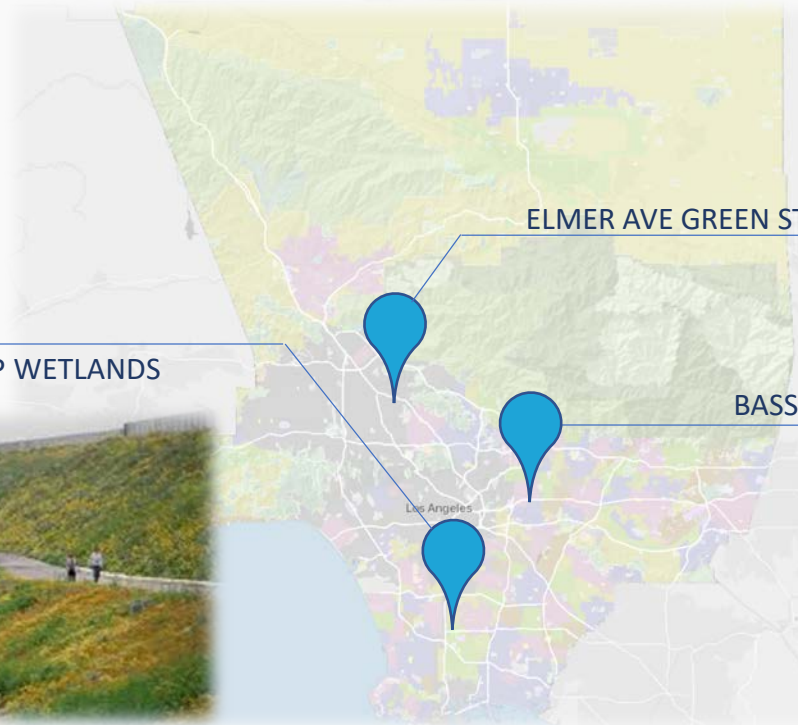
ELMER AVE GREEN STREET



BASSETT HIGH SCHOOL



DOMINGUEZ GAP WETLANDS



# Looking Ahead – Challenges

- Climate change impacts on stormwater capture
- Regulatory obstacles



Woolsey Fire (JPL)

# Looking Ahead – Challenges



*Big Tujunga Dam, 2009 Station Fire*

# Looking Ahead – Challenges





Rio Honda Channel