

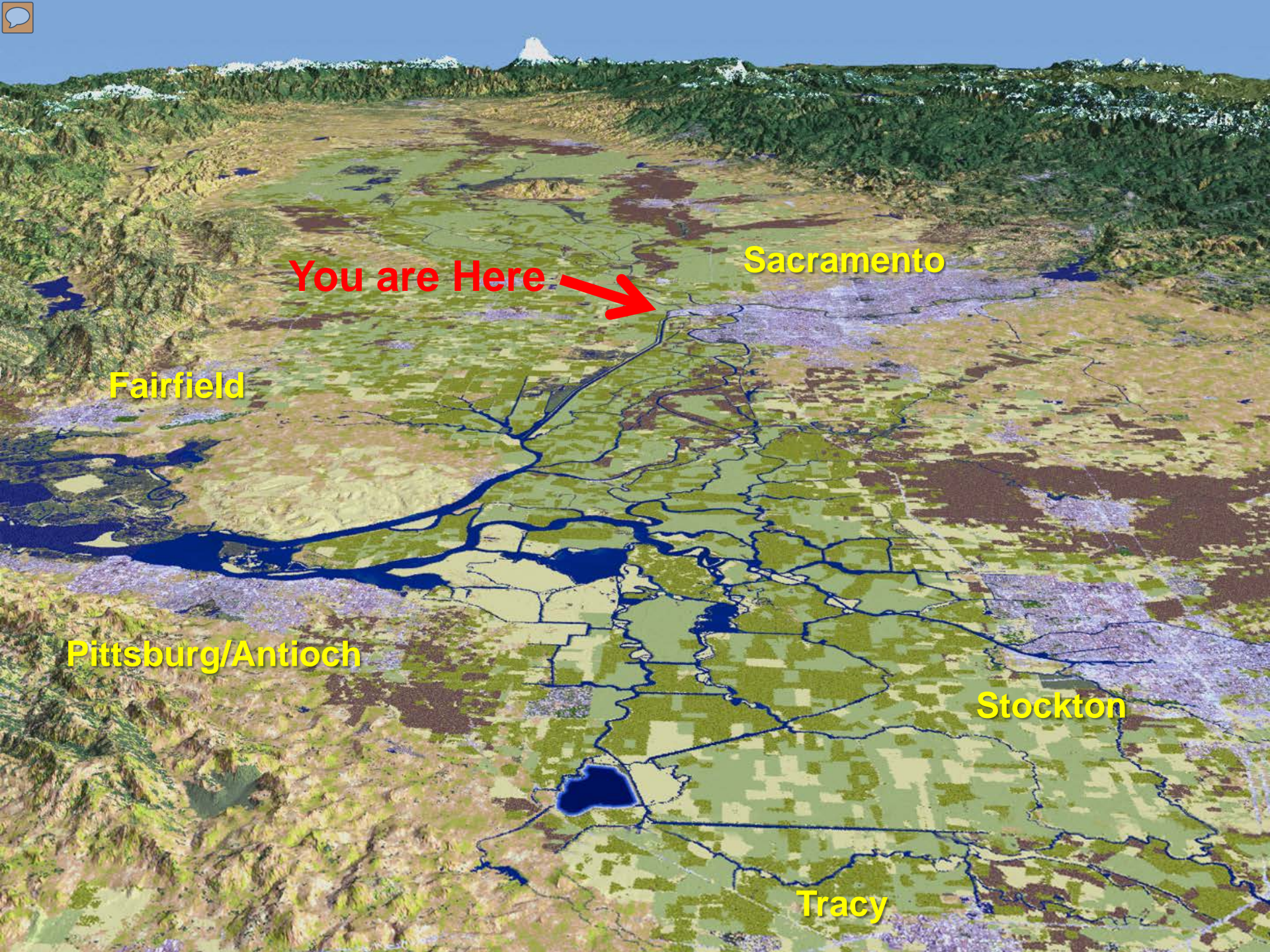


Why is the Delta so important – and why can't we just fix it?

*Keith Coolidge
Delta Stewardship Council*

June 15, 2016





You are Here



Sacramento

Fairfield

Pittsburg/Antioch

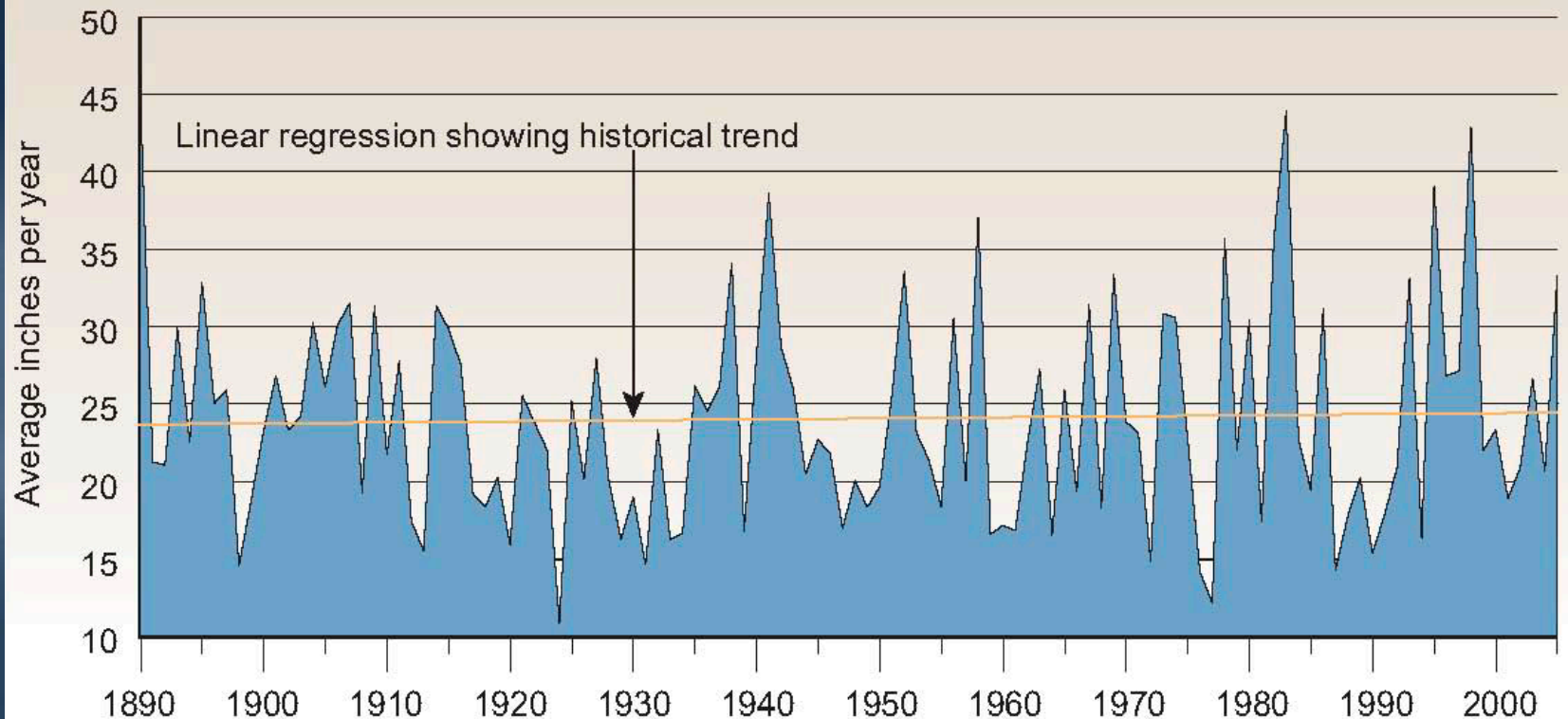
Stockton

Tracy

Today's talk

- Where California's water comes from & the importance of the Delta
- How the Delta has changed – consequences over time
- Who's doing what & why
- Delta Stewardship Council - a comprehensive approach
- Things to think about during the tour

California precipitation variability ...

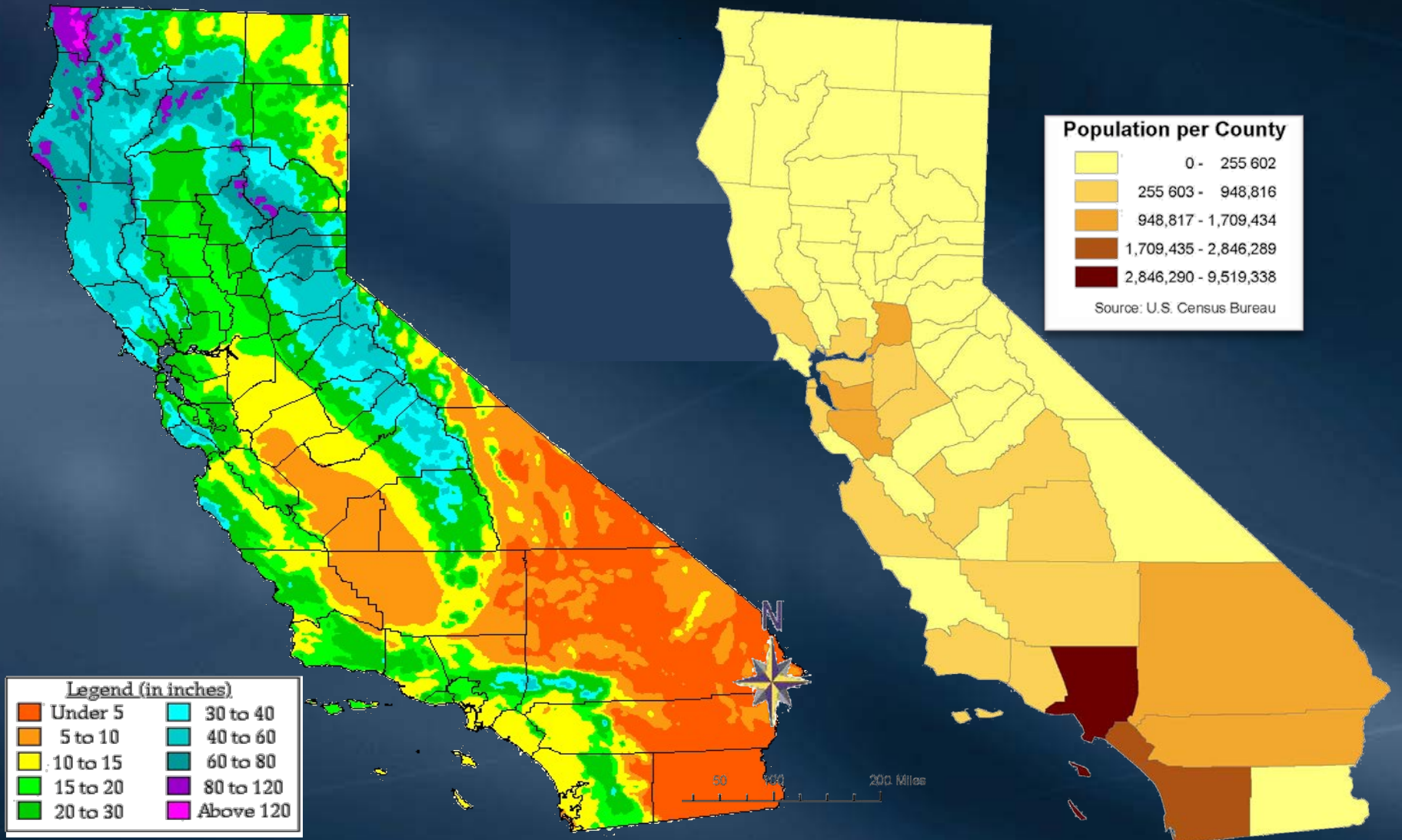


116 year average: 23.88 inches

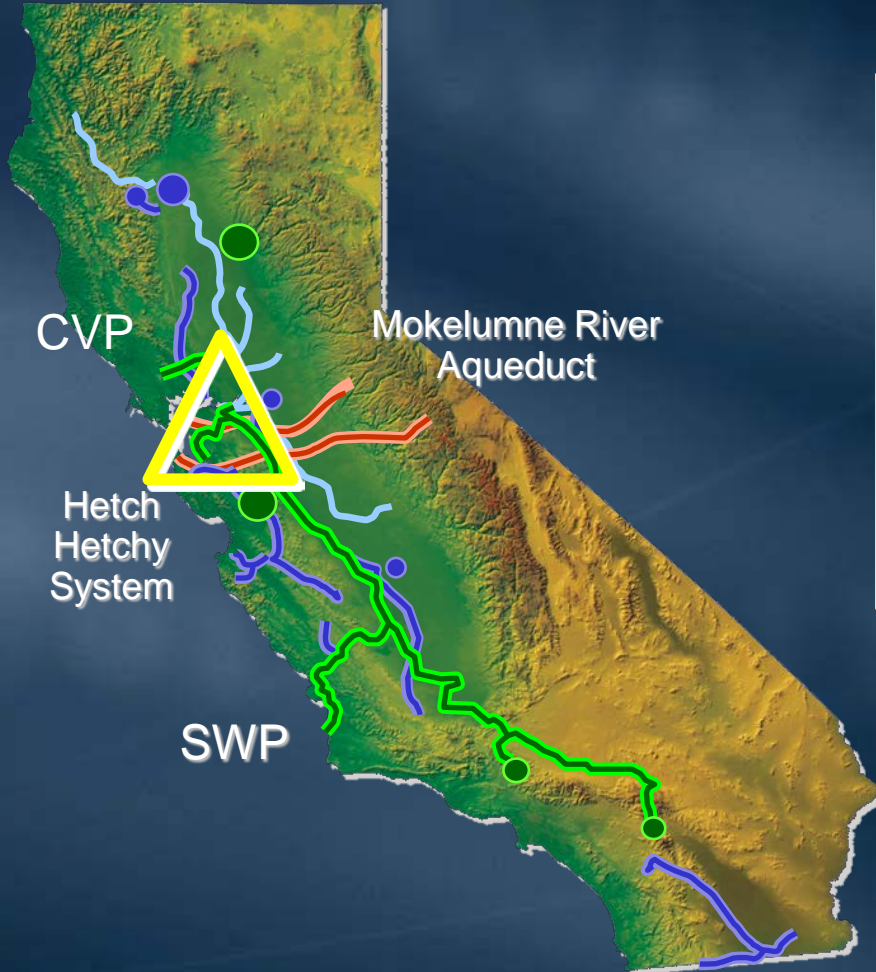
Driest 30 years (1908-1937): 21.28 inches

Wettest 30 years (1977-2006): 24.88 inches

... and water / population imbalance

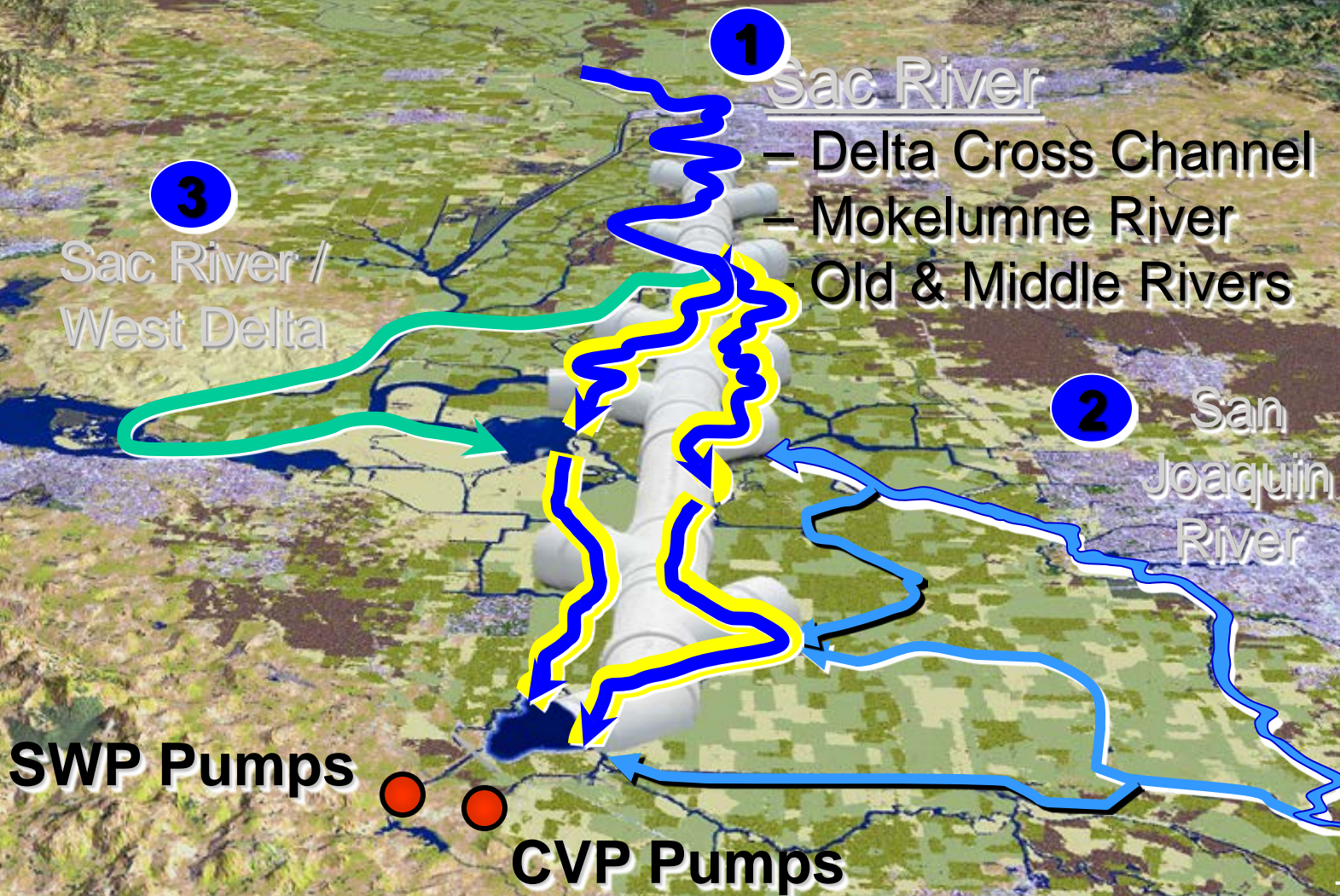


Lead to California Water Development



CA Department of Water Resources
State Water Project
1960 - Burns Porter Act
1973 - 1st water to So. Cal.

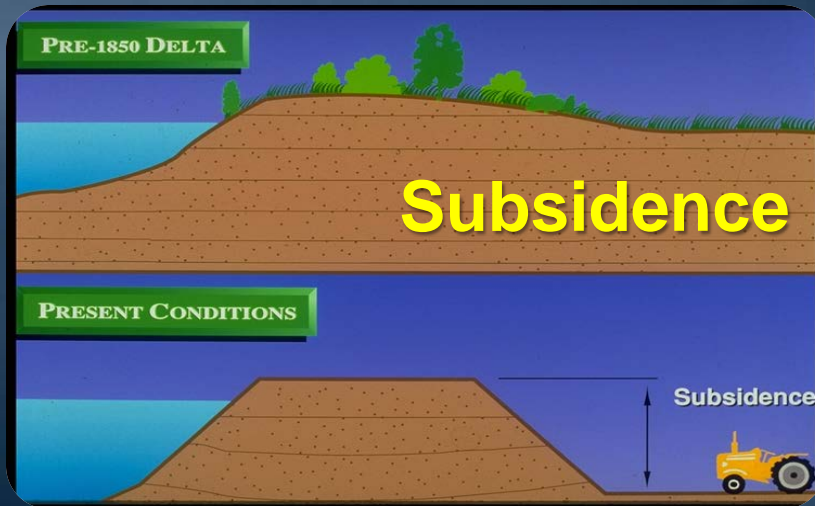
How Water Gets Across the Delta



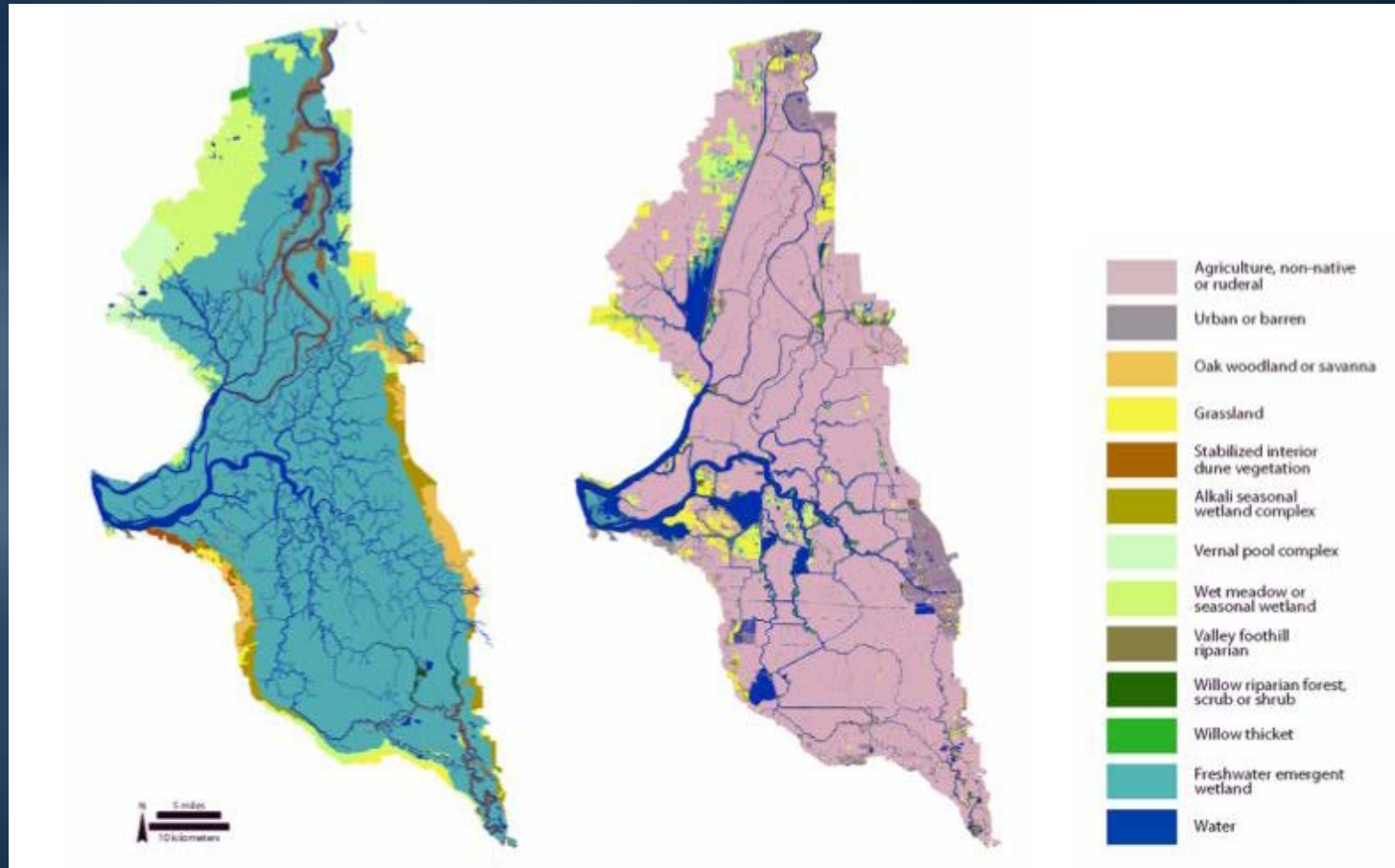
Water Supply Implications



Key Delta Risks

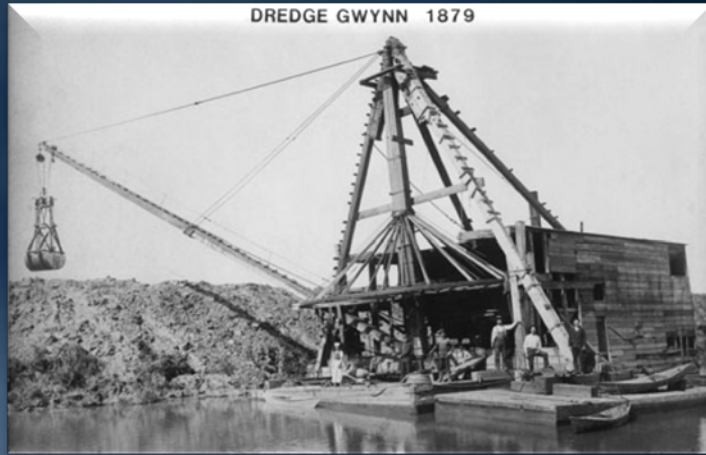


Delta is an Evolving Place Shaped by Many Forces



Change in Delta land cover, early 1800s to early 2000s. *Graphic by SFEI-ASC*

Changing Delta – Flood Protection



- Built levees and straightened channels

- Lost 80% of Delta's riparian habitat
- Degraded foodweb



Chaging Delta: Inland Ports

- Opened Central Valley to world of commerce



- Ballast water discharges introduced invasive species

Changing Delta: Recreational Fishing

- Introduced sportfishing species (striped bass)
- Recreation & tourism



- Predation of native species
- 90% of Delta aquatic species now non-native

Changing Delta: Upstream Storage



- Stores variable water supply
- Flood protection
- Recreation

-
- Barrier to salmon spawning habitat
 - Creates unnatural flows

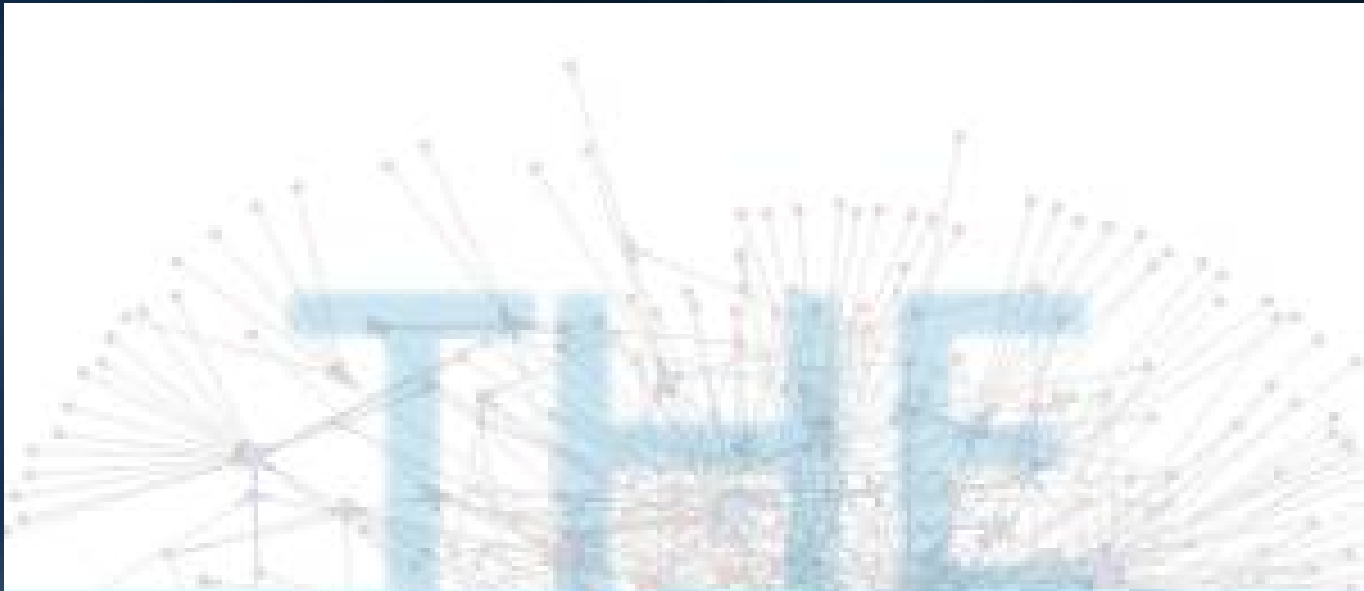


Chaging Delta: Ag/Urban Growth

- 300,000 acres of prime farmland
- Home to 500,000 residents

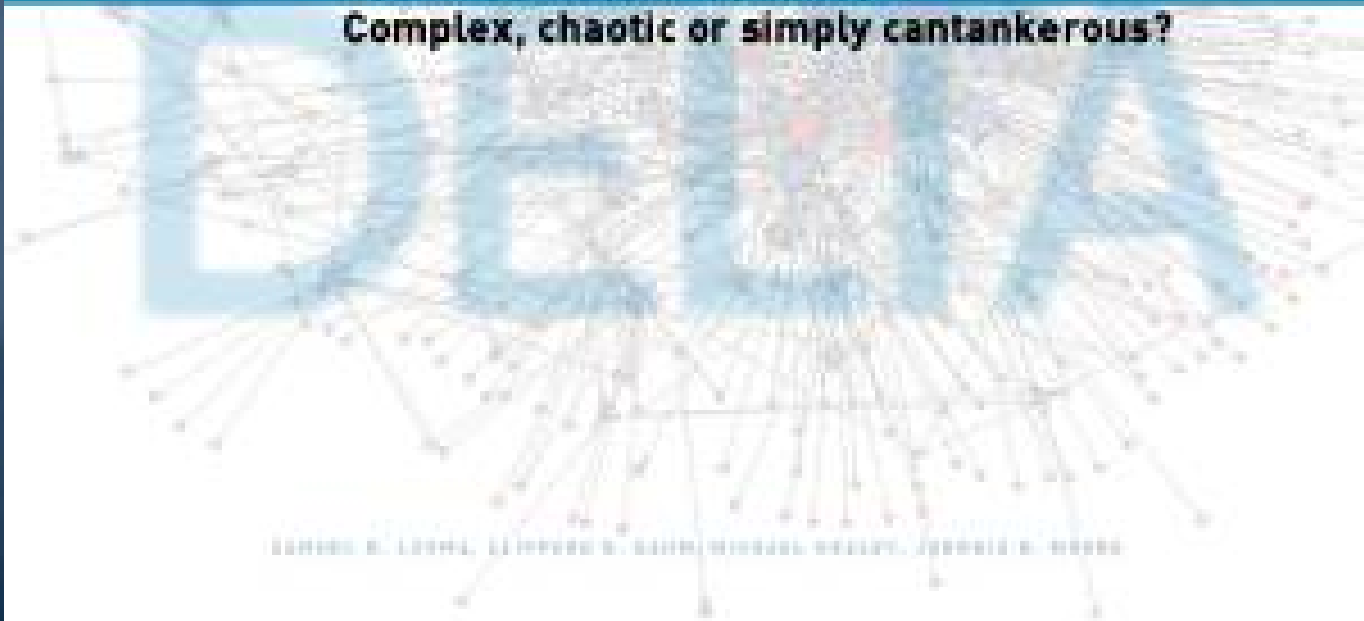


- Increased risk of flooding
- Ag and urban runoff



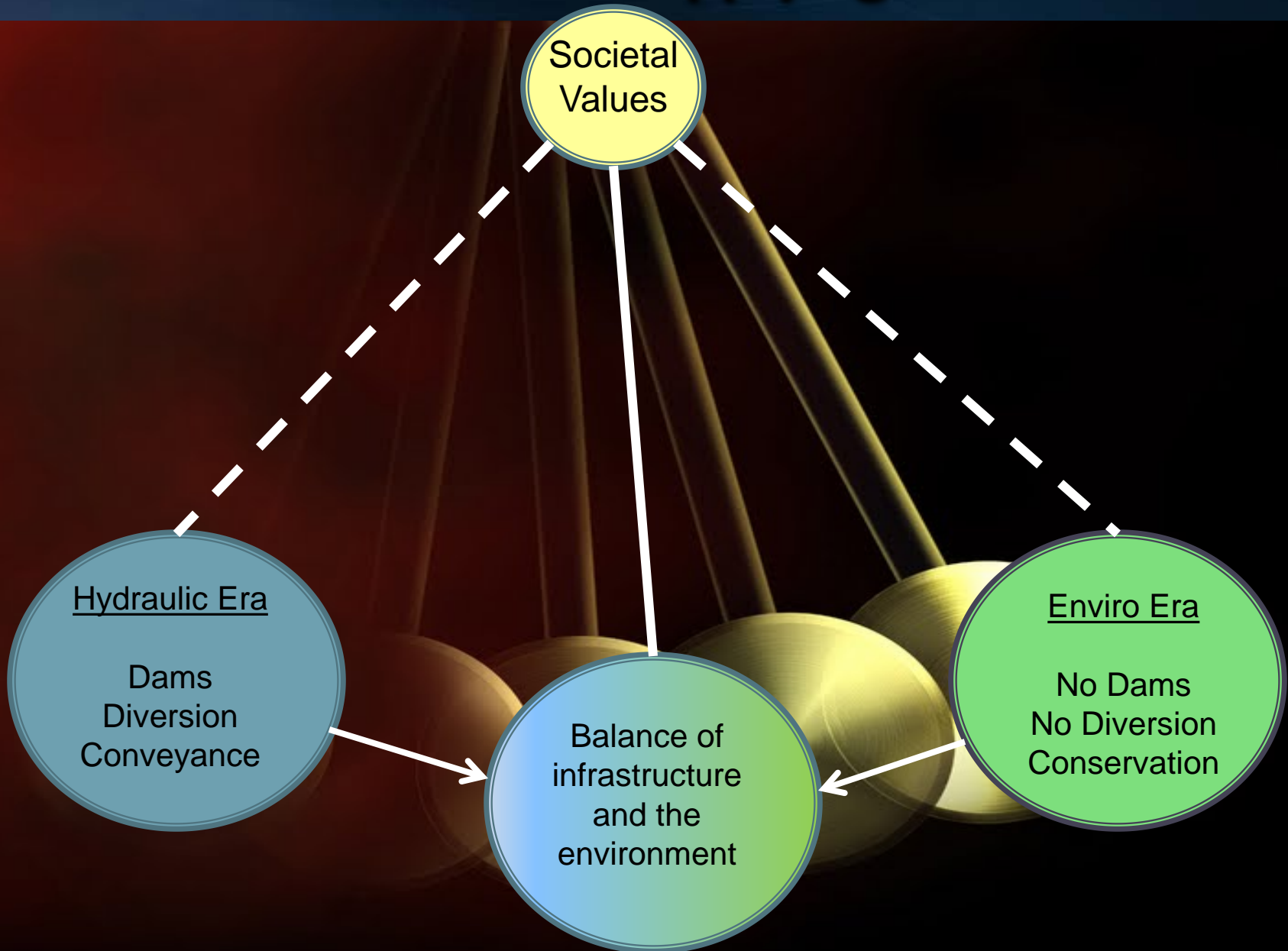
**CHALLENGES FACING
THE SACRAMENTO-SAN JOAQUIN DELTA**

Complex, chaotic or simply cantankerous?



EDITED BY LARRY L. LUTHE, LINDSEY R. SMITH, MICHAEL WAGNER, JENNIFER R. MOORE

2009 Delta Reform Act - Applying Lessons Learned



Who's doing what at state level?

DWR

Operates SWP, flood control & emergency response, habitat restoration, WaterFix

CVFPB

Plans flood control on Sac & SJ Rivers, coordinates with USACE

CWC

Storage Funding
Recommends for federal funding
Eminent domain

DF&W

Permits, habitat restoration

Delta Conservancy

Habitat restoration, local coordination

CNRA

Oversees & coordinates WaterFix & EcoRestore (BDCP)

DPC

Land use appeals in Primary Zone, resource management plan

CalEMA

Plan & coordinate emergency response

SWRCB

Water rights, quality standards, public trust protections

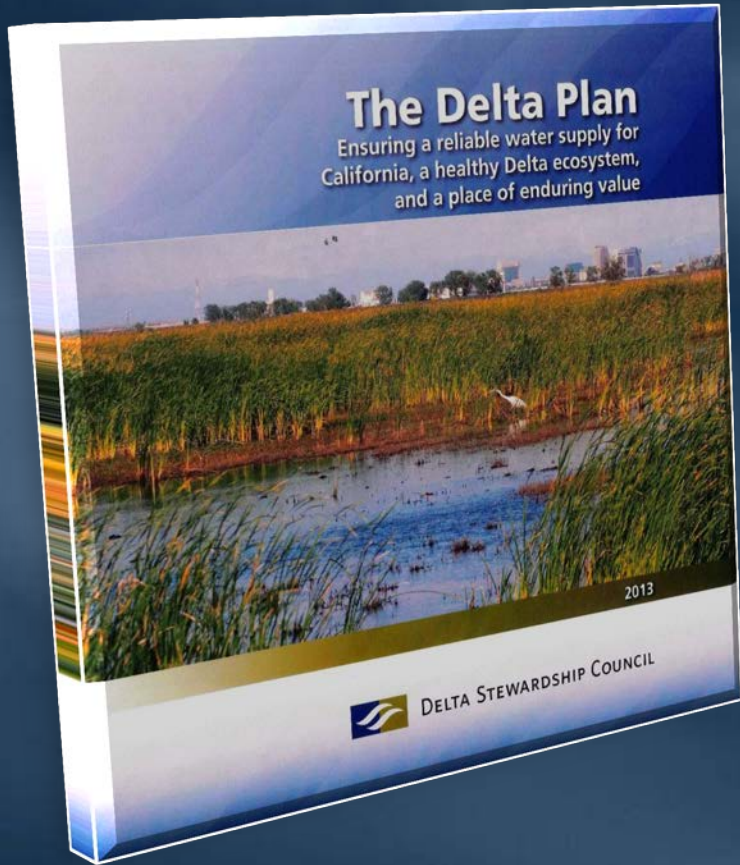
Delta Watermaster

Water rights & enforcement in Delta

Delta Stewardship Council created to:

- Further the achievement of the Coequal Goals
- Develop an enforceable Delta Plan
- Be a synthesizer and coordinator
- Ensure use of the best available science

Charting a Course for the Delta



- Conservation & efficiency
- Reduce flood risk
- Ecosystem restoration
- Supply reliability & storage
- Science & adaptive management

Today's takeaways

- California's precipitation is highly variable
- Most Californians live/work far from water sources
- Delta is hub for water deliveries – plagued by many longstanding problems
- Any resolution will require compromise, ownership ...
- ... and a comprehensive approach
 - Use water efficiently
 - Stabilize the Delta – but rely on it less
 - Increased storage a must – more so with climate change
 - Find regional and local solutions for new water



Questions?

Keith Coolidge

Delta Stewardship Council

keithc@deltacouncil.ca.gov

(916) 445-4503

www.deltacouncil.ca.gov