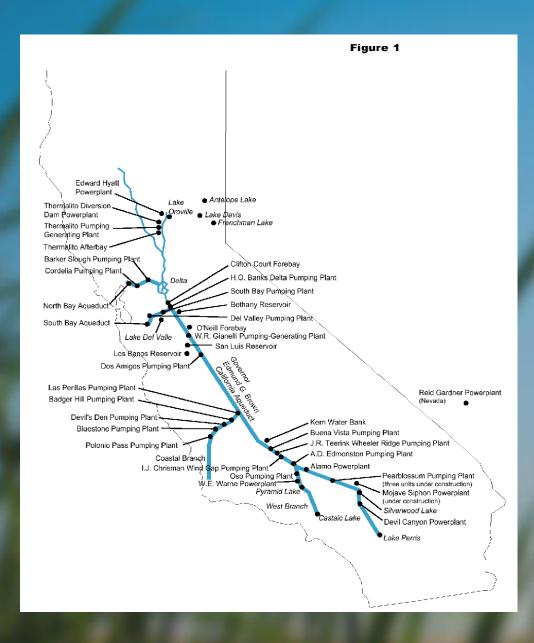
### CREATING A DECISION-SUPPORT SCIENCE ENTERPRISE

Water Education Foundation, September 20, 2018

**Jennifer Pierre** 

**General Manager, State Water Contractors** 



# STATE WATER PROJECT

- 34 STORAGE FACILITIES, RESERVOIRS AND LAKES
- 20 PUMPING PLANTS
- 4 PUMPING-GENERATING PLANTS
- 5 HYDROELECTRIC POWER PLANTS
- 701 MILES OF OPEN CANALS AND PIPELINES
- CONSTRUCTION BEGAN IN THE 1960S

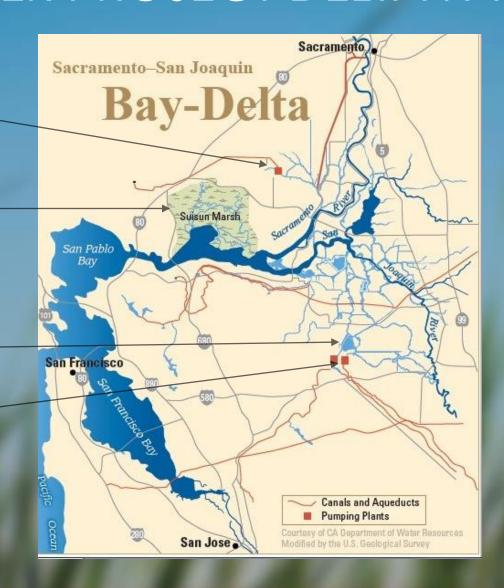
### STATE WATER PROJECT DELTA FACILITIES

NORTH BAY AQUEDUCT

SUISUN MARSH DUCK CLUB MANAGEMENT

CLIFTON COURT FOREBAY

BANKS PUMPING PLANT



### STATE WATER PROJECT CONTRACTORS

- DWR holds the water rights for SWC and Operates the Project
- > 29 public water agencies contractor for water supply
- DWR administers the contracts for the public's benefit
- SWP public water agencies pay SWP capital and O&M costs

### WATER DELIVERY

≥ 26 million people

>750,000 ac of farmland

- Silicon Valley
- San Joaquin Valley
- Southern California
- Napa, Solano, Yuba City



#### Plumas County Flood Control & Water Conservation District County of Butte —City of Yuba City Napa County Flood Control & Water Conservation District -Solano County Water Agency Alameda County Water District Zone 7 Water Agency Oak Flat Water District County of Kings - Empire West Side Irrigation District Tulare Lake Basin Water Storage District **Dudley Ridge** Water District - Kern County Water Agency Antelope Valley - East Kern Castaic Lake Water Agency Water Agency (Devil's Den) Mojave Water Agency San Luis Obispo County Castaic Lake Water Agency Flood Control & Water Conservation District ittlerock Creek Irrigation District Palmdale Water District Santa Barbara County Flood Control & Water Crestline-Lake Arrowhead Conservation District Water Agency San Bernardino Valley Ventura County Flood Control District Municipal Water District Desert Water Agency San Gabriel Valley -Coachella Valley Municipal Water District Water District The Metropolitan Water District of Southern California San Gorgonio Pass Water Agency

## State Water Project Contractors

- Upper Feather River
- North Bay Area
- South Bay Area
- San Joaquin Valley
- Central Coast
- Southern California

#### CURRENT STATE OF SCIENCE

- Public Water Agencies pay the majority of science and research investments, primarily through compliance
- Compliance monitoring/research is not explicitly linked to key management questions
- Limited collaborative learning
- Minimal coordination in experimental design or sharing of resources

### EQUATIONS FOR SUCCESS IN SCIENCE

$$(1+x)^n = 1 + \frac{nx}{1!} + \frac{n(n-1)x^2}{2!} + \cdots$$

$$e^x = 1 + \frac{x}{1!} + \frac{x^2}{2!} + \frac{x^3}{3!} + \cdots$$

$$\infty < x < \infty (x+a)^n = \sum_{k=0}^n \binom{n}{k} x^k a^{n-k}$$

$$f(x) = a_0 + \sum_{n=1}^{\infty} \left( a_n \cos \frac{n\pi x}{L} + b_n \sin \frac{n\pi x}{L} \right)$$

### EQUATIONS FOR SUCCESS

**Better Coordination** 

- + More transparency
  - = Joint learning

Joint learning

- + Structured Decision-Making
  - =Deliberate actions that improve conditions

## VISION FOR DECISION-MAKING UNDER NEW BAY-DELTA WATER QUALITY CONTROL PLAN

Develop and Test Revised **Hypotheses Develop** and Water and \$ **Test Revised** What Decision Hypotheses did we Develop Water and \$ support and Test What learn? science Decision Initial did we support **Hypotheses** learn? science Agree on No Regrets **Projects/Actions** 

Time