



SCSC

Southern California Salinity Coalition

MARK NORTON, WATER RESOURCES & PLANNING MANAGER

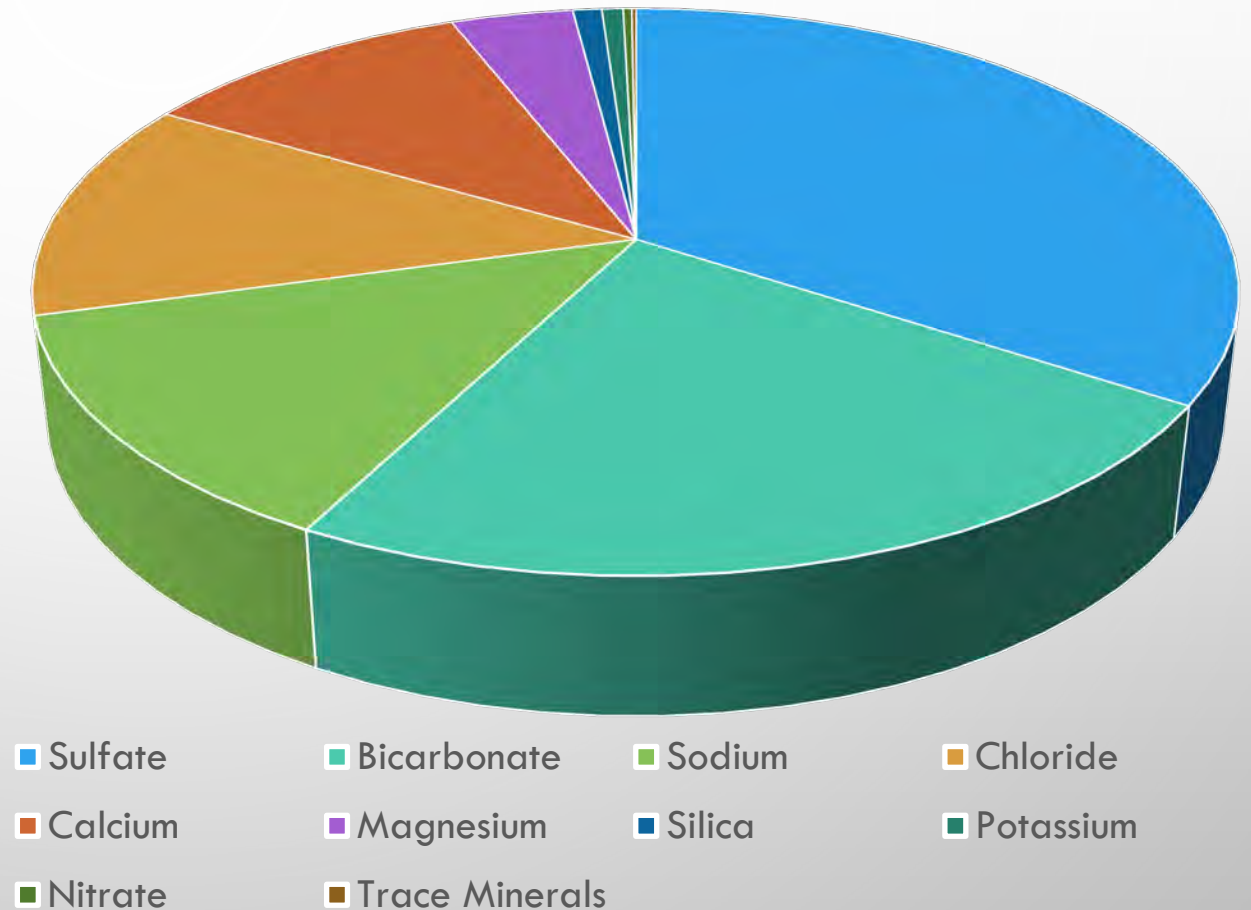
SANTA ANA WATERSHED PROJECT AUTHORITY

MAY 18TH, 2021

What is Salinity?

- Measurement of salts [minerals] dissolved in water
- Commonly expressed as Total Dissolved Solids, or TDS

Typical mineral composition of Colorado River water



The problem with salinity...

Sources of salinity

- Naturally occurring, agricultural runoff, urban uses, seawater intrusion

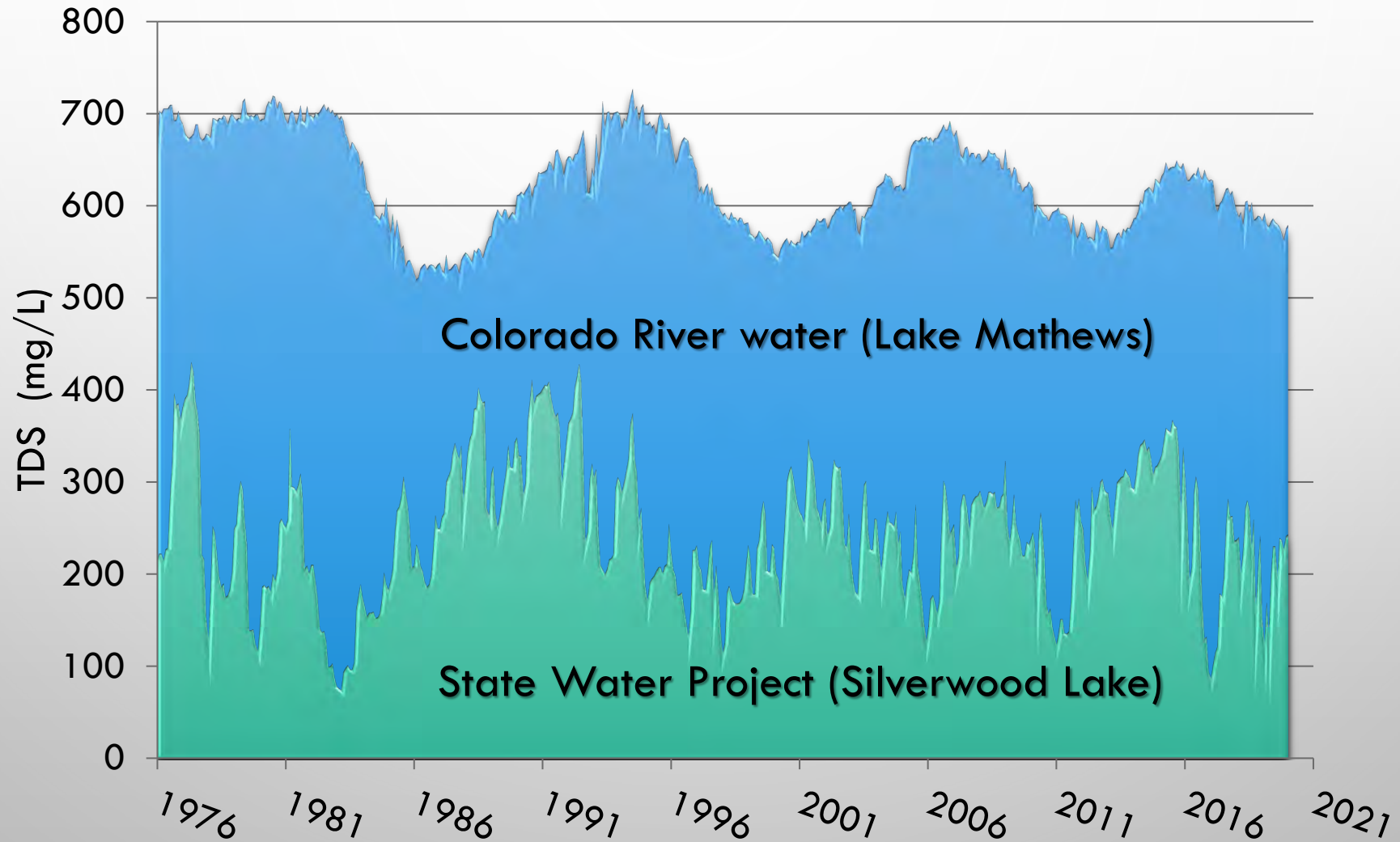
Impact of salinity

- Limits use of groundwater basins
- Lowers usefulness and increases cost of recycled water
- Damages household appliances/fixtures
- Reduces agricultural crop yields
- Imparts unpleasant taste in drinking water



Salinity in Imported Supplies

Historical Trends

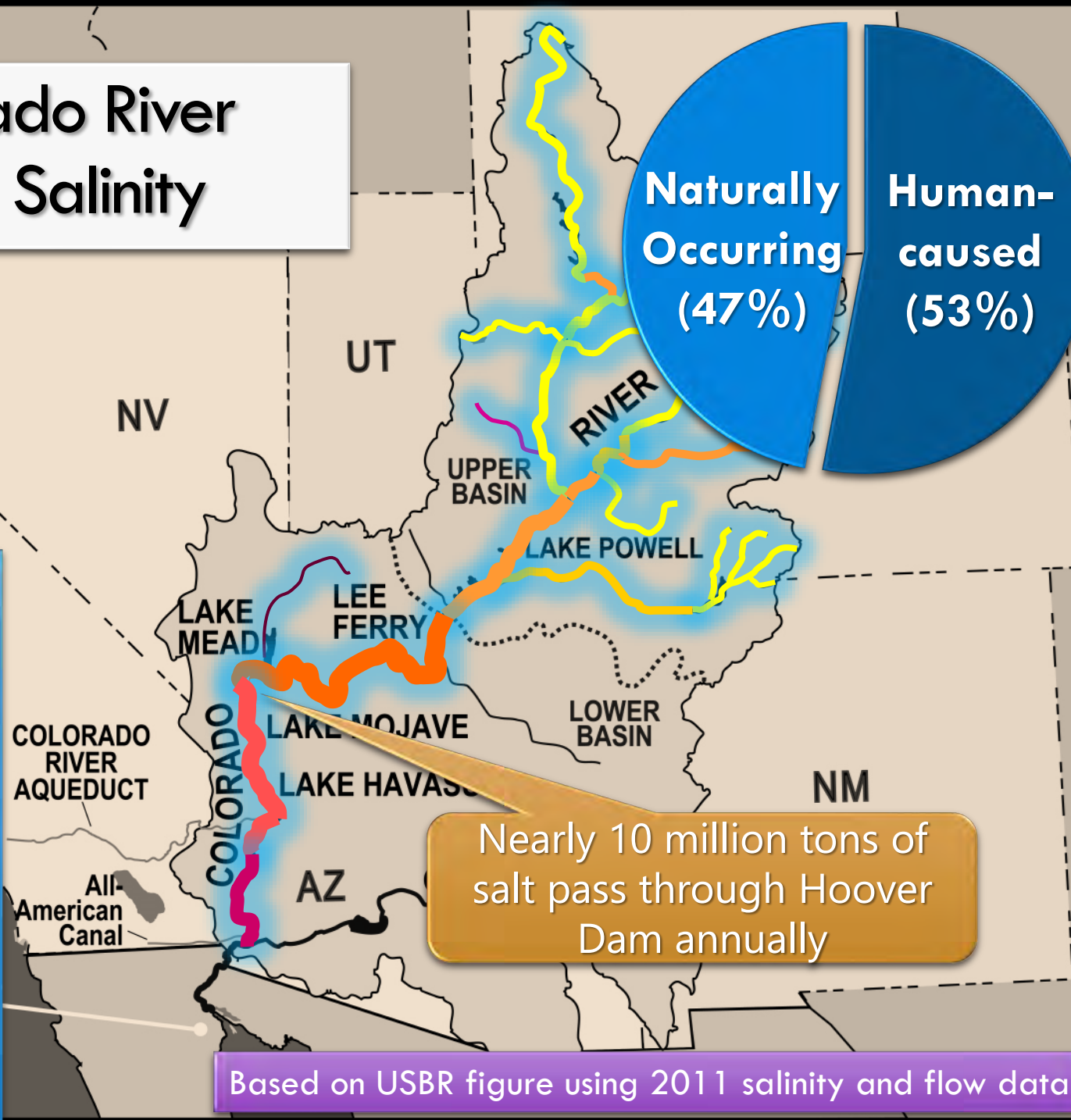


Colorado River Basin Salinity

Naturally Occurring (47%)

Human-caused (53%)

Est. Range of Salinity Concentrations (mg/L)

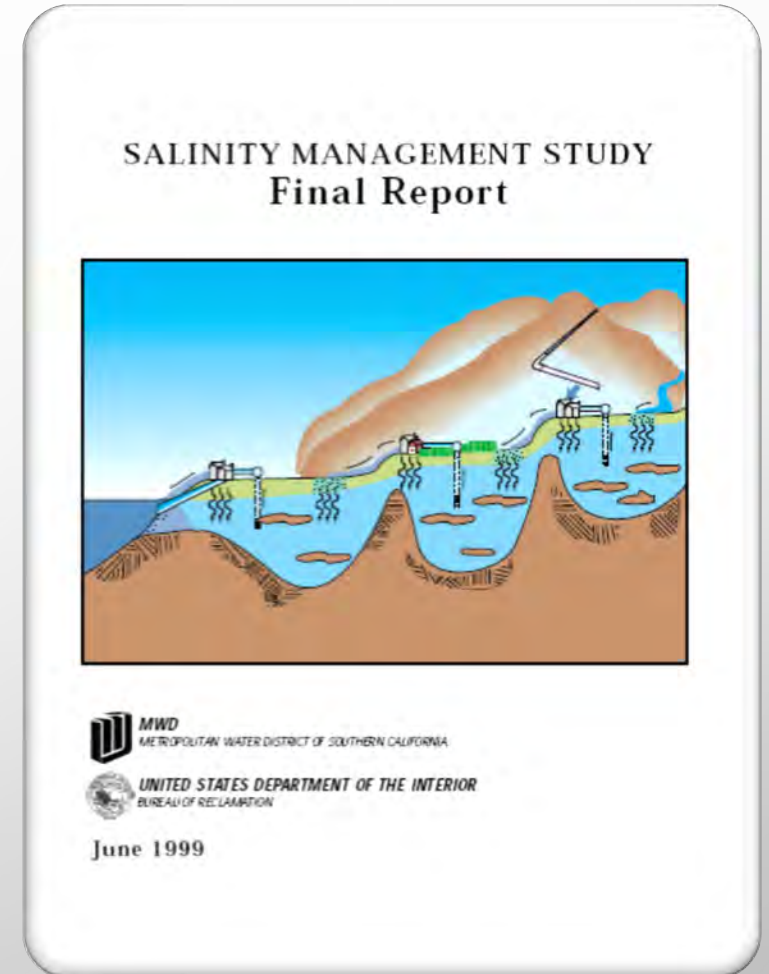


Nearly 10 million tons of salt pass through Hoover Dam annually

Based on USBR figure using 2011 salinity and flow data

Salinity Management Study (1999)

- 640,000-ton salt imbalance in the region
- Source: 50% imported / 50% local
- Estimated \$95 million/yr. economic benefit of reducing salinity 100 mg/L
- Metropolitan adopted 500 mg/L TDS objective, annual average
 - System Blending
 - Dependent on availability of sufficient SWP water



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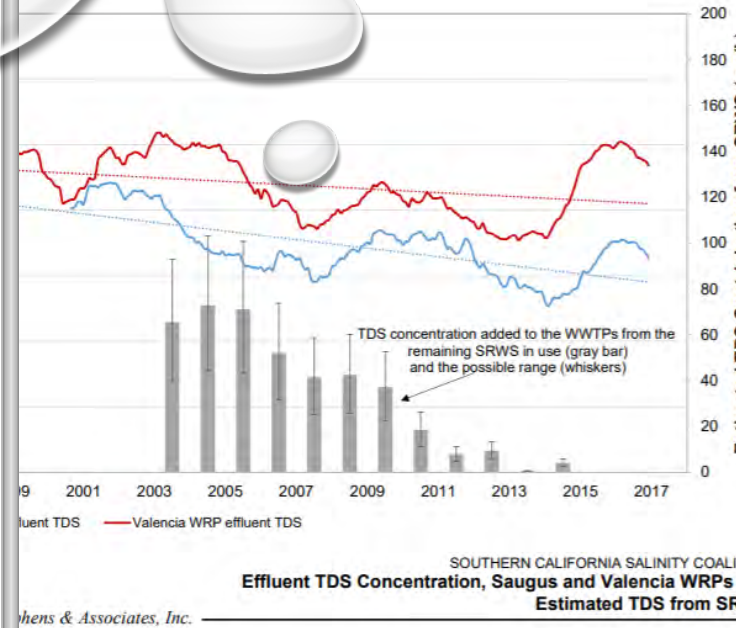
- Coalition of water and wastewater agencies in Southern California formed in June 2002
- Works collaboratively to minimize adverse effects of salinity on water systems



Study to Evaluate Long-Term Trends and Variations in the Average Total Dissolved Solids Concentration in Wastewater and Recycled Water

Funding Agency: Southern California Salinity Coalition

March 30, 2018



Recently Completed Studies

- Long-term trends in wastewater TDS
- Leaching allowances for recycled water irrigation

Accounting for Salinity Leaching in the Application of Recycled Water for Landscape Irrigation

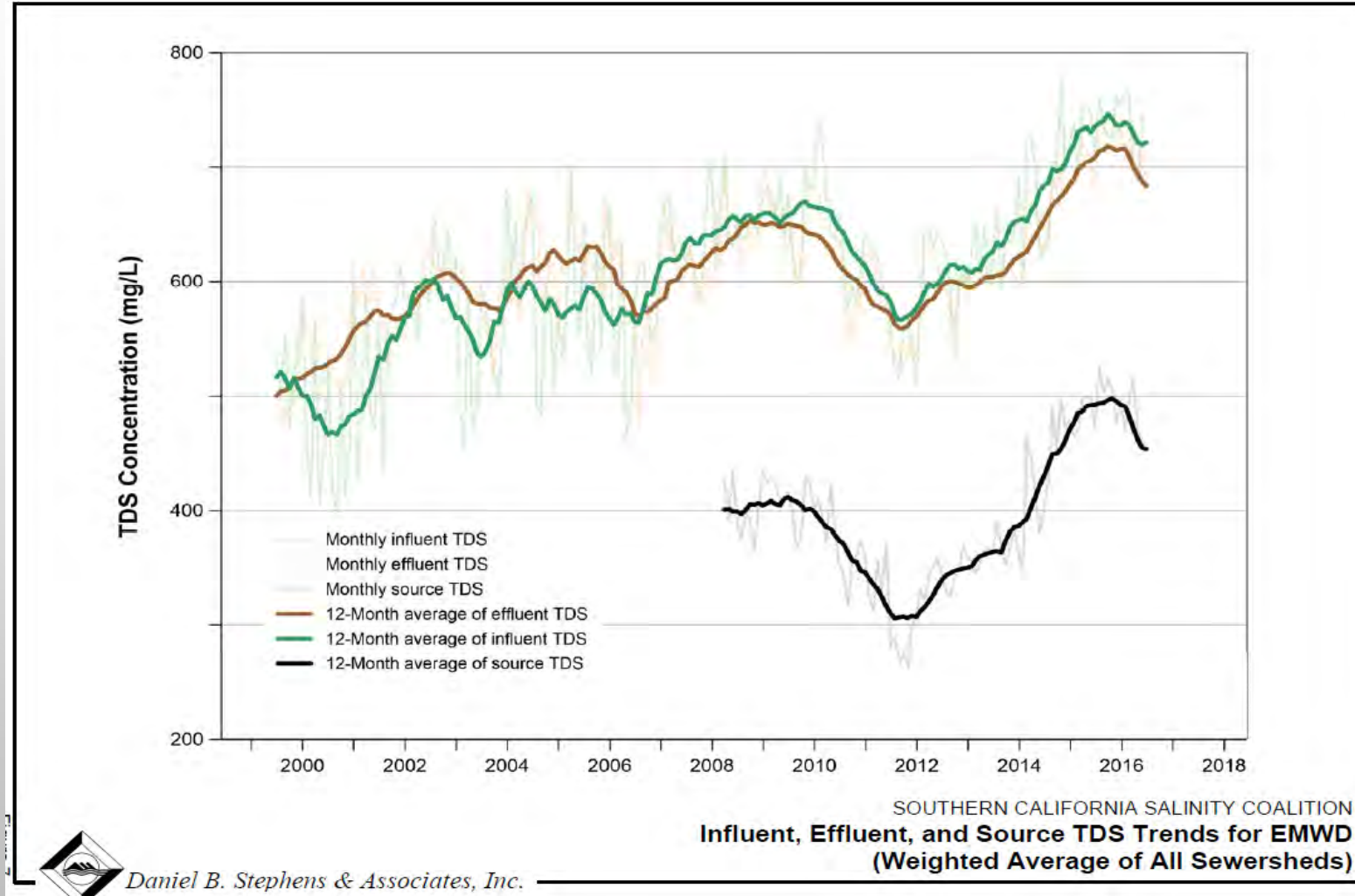
Prepared by:

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OVER PREVIOUS EIGHT YEAR DROUGHT PERIOD, PER CAPITA WATER USED DECLINED BY 15 GPCD AND RESULTED IN APPROXIMATE 25 MG/L OF TDS INCREASE REFLECTING IMPACTS FROM LOCAL AND STATEWIDE CONSERVATION.



OCWD SALINITY PILOT RESEARCH PROJECT

PILOT EVALUATION OF FLOW-REVERSAL REVERSE OSMOSIS FOR MUNICIPAL POTABLE REUSE

- 18-month project will investigate and demonstrate a new reverse osmosis (RO) based technology flow reversal [FR] RO in pilot scale to treat both RO feed water and RO concentrate from groundwater replenishment system
- Project will include a cost estimate for a 5 MGD FR-RO retrofit system, providing a significant research benefit to the water reuse industry
- SCSC provided research grant of \$100,000 for \$346,000 total project cost



New Studies and Outreach

- Flow-reversal reverse osmosis (high recovery desalination)
- Cost/benefit analysis of a dedicated concentrate pipeline
- Desalination research needs survey
- Reuse briefing materials
 - (CUWA, CalDesal, others)



Funding
Water Reuse



Balancing
Competing Needs
and Uses



Water Quality and
Source Control



Salinity and RO
Concentrate
Management



Collaboration
and Regional
Approaches



Regulatory
Alignment

Graduate Fellowships to Promote Research

Annual Award

SCSC and National Water Research Institute award an annual graduate fellowship.

Research

The fellowship supports a graduate student conducting research that addresses the critical need to remove or reduce salt in water supplies.

Research Areas

Students come from engineering, physical, chemical, biological, and health sciences as well as political science, economics, planning, and public policy.

UPDATED WEBSITE



SCSC

Southern California Salinity Coalition

Using policy and science to protect our water from salinity

TAKE THE
DESALINATION
NEEDS
SURVEY NOW!

HOME

ABOUT

RESEARCH

LINKS

FELLOWSHIPS

CONTACT

SCSC is a coalition of water and wastewater agencies in Southern California dedicated to managing salinity in public water supplies.

[Read more ^](#)



FALL 2021 VIRTUAL SALINITY SUMMIT

SUMMIT PURPOSE:

- Provide information useful to agencies, explain what SCSC does
- Provide information about SCSC to recruit new members, discuss recent legislation
- Explore broader topics related to salinity, share information, raise awareness of salinity

SUMMIT FORMAT:

- Streamlined, virtual event for the duration of no more than half a day
- Incorporate question-and-answer with panelists and audience



SCSC BENEFITS

SAWPA AND ALL
SCSC MEMBERS
CONTRIBUTE
ANNUAL DUES OF
\$10K/YR

Collaborate

Collaborate with peer agencies on common salinity management challenges.

Implement

Implement multi-year research program.

Partner

Partner with other associations with similar goals.

Communicate

Communicate compelling information to the public.

The image features a light gray background with a subtle gradient. In the top-left and bottom-right corners, there are several realistic water droplets of various sizes, rendered with soft shadows and highlights to give them a three-dimensional appearance. The word "QUESTIONS?" is centered in the middle of the page in a large, bold, black, sans-serif font.

QUESTIONS?

Disadvantaged Communities Water System Grant Support Workshop

Status Report

**Rick Whetsel, Senior Watershed Manager
SAWPA Commission | May 18, 2021
Item No. 6.B.**



Disadvantaged Communities Water System Grant Support Fund

Proposed SAWPA Program

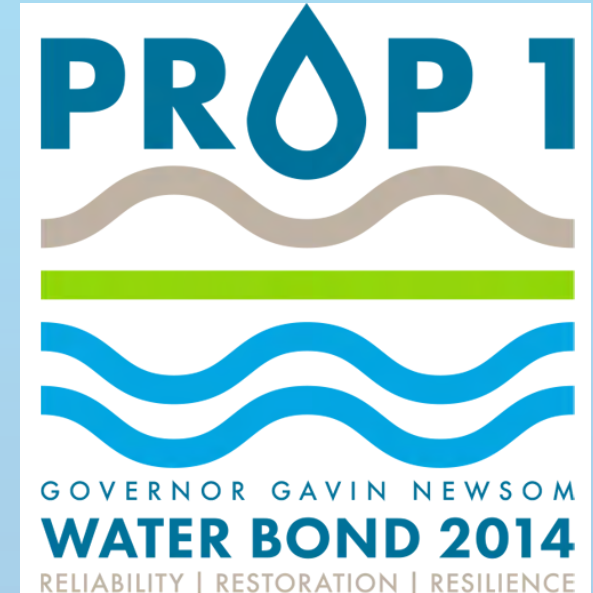
- Purpose: provide technical assistance support for small water systems who lack the staffing and technical expertise to apply for and manage government grants.
 - Assemble project information
 - Prepare grant applications
 - Project administration services
- Outcome: SAWPA program funding to support the preparation of Prop 1 IRWM Round 2 IRWM grant proposals for Disadvantaged Community Implementation funding.



Disadvantaged Communities Water System Grant Support Fund

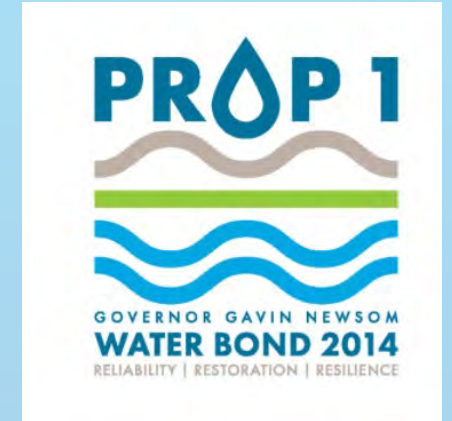
Benefits

- Creates funding source to assist small water systems in most need of grant funding.
- Identifies communities most in need.
- Proactive and positive outcome of the Prop 1 IRWM DCI program.
- Positive and effective working relationship with California Rural Water Association (CRWA).



SAWPA Member Agency General Managers Committee Meeting – 4/13/21

- GMs recommended that SAWPA first conduct workshop with SAWPA member agencies staff.
 - To determine the need for ongoing outreach to water systems supporting disadvantaged and Tribal communities.
 - Provide updates to SAWPA member agency staff about work of the SAWPA's grant funded Disadvantaged Community Involvement program.
 - Learn more about California Rural Water Association support services available.



Disadvantaged Communities Water System Grant Support Fund

Workshop: May 25th

Topics to be discussed:

- SAWPA's Disadvantaged Community Involvement Grant Program and Needs Assessment Overview
- SAWPA Proposal Program Structure
- California Rural Water Agency Program Support Capacity
- SAWPA Staff Program Support
- Related SAWPA Member Agencies Disadvantaged Community Support Activities



Questions

