

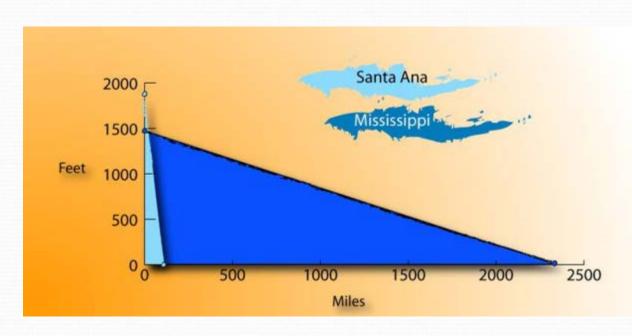
Storm Water Quality Standards Task Force

An Example of Watershed-wide Water Quality Planning

Jan 5, 2015

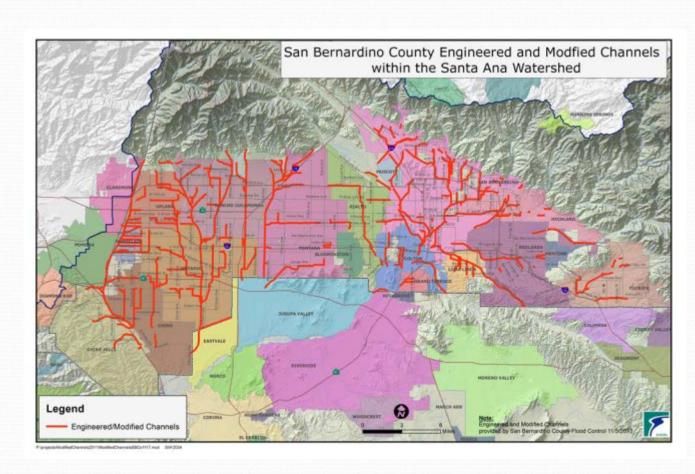
The Problem

- Stormwater as a regulated source
- Receiving waters for an MS4?
- Pathogen standards
- BMPs; Treatment and Control?
- MS4 compliance in the arid West
- Not enough money in the world
- Problem is driven by the regulatory foundation



The Players

- County Flood Control Agencies
- Wastewater Treatment Plants
- Orange County Water District
- Advocacy Groups
 - Orange County Coastkeeper



Goals

- Initially
 - Convert to *E.coli* as indicator
 - List water bodies
 - Major change in REC definitions
 - De-list most waterbodies
- Consensus
 - Facilitate water quality protection by focusing effort
 - Spend money, but don't waste money
 - Appropriate standards
 - Achievable standards



Accomplishments

- Aligned beneficial use definitions with federal approach
- Converted to *E.coli* as indicator
- Focused efforts on actual use
 - UAAs photographs
 - High Flow Suspension
- REC2 approach
- Natural sources



Significance

- Significant control on municipal cost
- Better protection of public health
- Sets stage for regional treatment control
- May facilitate capture and use strategies
- Reinforced value of regional collaboration
- Template for dealing with CWA presumptions

Observations

- Side benefits related to TMDL efforts, mapping, monitoring programs
- SAWPA's genetic relationship to basin planning
- MS4 permittees benefit from SAWPA experience
- Relationship to OWOW:
 - Riverside County Flood project
 - SARCCUP

SAWPA's Mission

SAWPA strives to make the Santa Ana River Watershed sustainable through fact-based planning and informed decision-making, regional and multijurisdictional coordination, and the innovative development of policies, programs and projects. Our mission is accomplished through a number of specific functions:

SAWPA's Mission Continued

- Maintaining peace in the watershed
- Facilitating conflict resolution through collaborative processes
- Preparing an integrated watershed-wide water management plan that provides a unified vision for the watershed
- Operating the Inland Empire Brine Line to convey salt out of the watershed and support economic development

SAWPA's Mission Continued

- Developing water-related initiatives, particularly those that require the participation of several entities
- Identifying, pursuing, securing and administering supplemental funds for the watershed
- Influencing legislation for the benefit of the watershed

SAWPA's Goals

- Achieve optimal use of local water supplies and reduce reliance on imported water
- Improve water quality
- Achieve salt balance and ensure continued cost-effective and reliable operation of the brine line
- Balance water supply needs with natural habitat protection
- Build public understanding and support for watershed sustainability

SAWPA's Goals

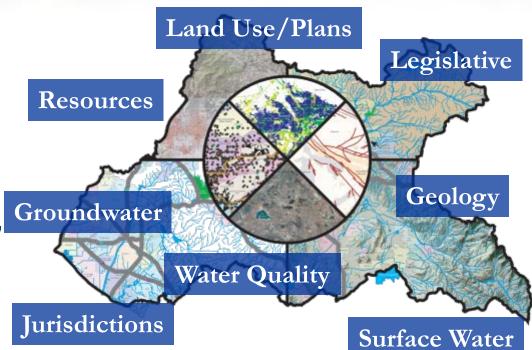
- Facilitate incorporation of water resources management in land use planning
- Be a resource for compliance with AB32 (greenhouse gas regulations) and reducing its impact on member agencies
- Secure external funding for the watershed to support accomplishing watershed goals

Basin Planning General

- Interagency coordination and cooperation, both within the member districts and external organizations
- Southern California Salinity
 Coalition, Update on Watershed
 Report Card, Drought Response,
 EIR review, general planning
 coordination, general grant
 applications

Benefits:

- Able to respond to SAWPA business and planning issues as needed
- Support member agencies in strategic waterrelated subregional and So Cal efforts
- Establishes good will with the Regional Board avoiding conflicts and excessive compliance costs



Costs: \$338,534 (2016)

\$348,350 (2017)

Funding: Member Agency

Contributions

Accomplishments & Future Activities

- SAWPA serves as chair of So Cal Salinity Coalition (SCSC) providing leadership on salinity issues
- Conducted SCSC Salinity Workshop at MWDSC 2015
- Multi-party agreement with SCSC, MWDSC and Bureau of Reclamation
- Provided drought impacts presentation to Regional Board which in turn resulted in more focused attention and priority of their resources
- Applied for and received Water/Energy Grant \$2.3 million supporting watershed sustainability and reduced water demand

Future Work

 Future water resource and water quality collaboration with the Regional Board such as new Drought Policy

U.S. Bureau of Reclamation Partnership Studies

- Application of grants through Bureau such as LIDAR benefit analysis
- Support regional studies for water recycling, brine mgt, Basin planning
- Provides typical 50-50 cost share between US Bureau of Reclamation and SAWPA

Benefits:

- Additional Federal support and funding
- Reduces overhead costs
- Provided additional support in climate change and DAC, EJ and Tribes outreach and planning as required by DWR IRWM Plan Guidelines



Costs: \$19,

\$19,881 (2016) \$69,854 (2017)

Funding:

Member Agency Contributions

Additional grant \$50K

estimate

Accomplishments & Future Work

- Obtained funding and partnership for Santa Ana Basin Study Plan which assisted OWOW 2.0 Plan development
- Bureau staff served as OWOW pillar
- \$40,000 grant to support regional investigation into aerial survey techniques for irrigated land areas

Future Work

 Continued grant applications of regional benefit such as water use efficiency, drought response, etc.

Imported Water Recharge Workgroup

- Groundwater rechargers (including most SAWPA member agencies) developed more flexible non-regulatory approach to salt compliance
- Cooperative Agreement approved by RB as alternative to new regulation impacting imported water recharge.
- SAWPA conducts coordinating role in future groundwater recharge reporting and projection modeling

Benefits:

- Allows recharge of imported water including saltier TDS Colorado River Water and even State Project Water
- Avoids \$ millions in long term regulatory compliance costs
- SAWPA facilitated resolution



Benefits (cont.)

Allowed about 1/3 of watershed water supply or 514,000 AFY to continue to be used in watershed

Costs: \$ 9,920 (2016)

\$10,523 (2017)

Funding: Fund Balance

Carryover

Imported Water Recharge and Salinity Management Workgroup

Governing document: *Cooperative Agreement – 1-18-08*

10 signatories (includes all SAWPA member agencies except IEUA based on Chino Basin Max Benefit Demonstration)

- Santa Ana Regional Water Quality Control Board
- Eastern Municipal Water District
- Orange County Water District
- Western Municipal Water District
- San Bernardino Valley Municipal Water District
- San Gorgonio Pass Water Agency
- Elsinore Valley Municipal Water District
- City of Riverside
- City of Corona
- City of San Bernardino Water Department



Accomplishments & Future

- Amount of imported water recharge and quality are now reported every 3 years
- A projection of groundwater water quality for the next 20 years is now available to projection modeling through cascading approach down watershed.

Future Work

 All groundwater projections modeling for the watershed will be completed by 2016 which will enable determination of any salinity trends in groundwater basins.

Basin Monitoring Program

- Conducts analysis of salt and TDS and nitrate in groundwater every three years to identify trends
- Annual SAR water quality report
- SAR Wasteload Allocation to confirm compliance of river discharges with ground water quality objectives

Benefits:

 Regional support in reducing regulatory compliance for 20 agencies by \$10-\$99 million in avoided WWTP desalting according to TIN TDS Study final report

Costs: \$178,197 (2016)

\$739,511 (2017)

Funding: SAWPA Member Agencies

and Other Agency Contributions



Basin Monitoring Program Task Force

- Formed by agreement in 2004
- Four new agencies in 2015

Eastern Municipal Water District

Inland Empire Utilities Agency

Orange County Water District

City of Riverside

Lee Lake Water District

Elsinore Valley Municipal Water

District

Irvine Ranch Water District

Colton/San Bernardino Regional

Tertiary Treatment and

Wastewater Reclamation

San Bernardino Valley

Municipal Water District

San Gorgonio Pass Water

Agency

Chino Basin Watermaster

Yucaipa Valley Water District

City of Beaumont

City of Corona

City of Redlands

City of Rialto

Jurupa Community Services District

Western Riverside Co Regional Wastewater

Authority

City of Banning

Beaumont Cherry Valley Water District

Accomplishments & Future Work

- Four new agencies requested to be allowed to be added to the Task Force based on value of task force thus reducing costs for all
- Regional Board views Task Force as a clearinghouse for all TDS and nitrate related issues in watershed which resolve conflicts and allow for efficiencies

Future Work

- 2016-17 groundwater quality update and new SAR Wasteload Allocation will be conducted
- Basin Plan Amendment for SAR Wasteload Allocation –
 2016 as required by the Regional Board
- Revisions to Basin Plan to accommodate drought impacts
- Updating regulations to accommodate continuance of flows in SAR benefiting downstream recharge of high quality flows

Lake Elsinore and Canyon Lake
Nutrient TMDL

- Addresses water quality impairments at Lake Elsinore and Canyon Lake Nutrient through Total Maximum Daily Load (TMDL) Task Force
 - Nutrients, DO, chlorophyll a

Benefits:

- Healthier lakes and tributaries providing millions in benefit to economy
- Surface Water Quality Improvement
- Reduction on compliance costs for agencies in watershed by 0.5-\$2 billion according to MS4 Nutrient Reduction Plan



Costs: \$ 981,780 (2016)

\$1,044,500 (2017)

Funding: Provided by Task Force agencies Successfully applied for grants to support Implementation work i.e. Canyon Lake Alum Application through OWOW

LE/CL TMDL Task Force

- March Air Reserve Base
- March JPA
- State of California
 - Santa Ana Regional Water Quality Control Board
 - Department of Fish and Game
 - Department of Transportation
- County of Riverside
- Riverside County Flood Control District
- Cities
 - Beaumont Lake Elsinore Perris
 - Canyon Lake Moreno Valley Riverside
 - Hemet Murrieta San Jacinto
 - Menifee Wildomar
- Water Agencies:
 - Eastern Municipal Water District
 - Elsinore Valley Municipal Water District
 - Lake Elsinore and San Jacinto Watersheds Authority
- Western Riverside County Agricultural Coalition
 - Dairy Operators
 - Agricultural Operators (Over 475)

Accomplishments & Future Work

- Successfully implemented lake projects that meet many of the water quality compliance targets
- Viewed as an effective collaboration among cities, counties, state, federal, agricultural and dairies
- Positive relationship with LESJWA JPA Board

Future Work

- TMDL revision kicks off for both TMDLs to reflect updated runoff data, new regulations and policies - \$800,000 over next three years for Lake Elsinore/Canyon Lake
- Planning and support for continued alum application at Canyon Lake
- New operation agreement on Lake Elsinore aeration system to include more parties

Middle Santa Ana River Pathogen TMDL Task Force

Addresses water quality impairment to Santa Ana River and its tributaries In the Chino Basin area known as the Middle Santa Ana River watershed -pathogens

Benefits:

- Healthier river and tributaries resulting in less red tape to implement water resource projects
- Surface Water Quality Improvement
- Reduction on compliance costs for agencies in watershed by \$2 billion according to MS4 Bacteria Reduction Plan



Costs: \$370,000 (2016)

\$354,460 (2017)

Funding: Provided by Task Force

agencies

Middle Santa Ana River Pathogen TMDL Task Force Agencies

- San Bernardino County
- County of Riverside
- City of Riverside
- City of Corona
- City of Norco
- City of Eastvale
- City of Jurupa Valley
- Agricultural Coalition
- City of Pomona
- City of Claremont

Accomplishments & Future Work

- Successfully implemented pathogen source control projects that have significantly reduced pathogen counts in several tributaries
- Viewed as an effective collaboration among cities, counties, state, federal, agricultural and dairies

Future Work

- TMDL revision is scheduled in FY 2017 will update land use change, runoff factors and pathogen regulations
- Reduced costs in \$ thousands per year by merging existing pathogen monitoring under new required stormwater monitoring program

Stormwater Quality Standards Task Force

- Evaluated stormwater quality standards for cost efficiency and applicability
- OC Flood Control, Riverside County Flood Control and Water Conservation District and San Bernardino County Flood Control, Regional Board, SAWPA





Benefits:

- Allows some channels to be delisted for recreation and refocuses monies where recreation occurs
- Allows regional treatment options
- Avoided compliance costs of approximately \$1-2 billion per county according to Task Force Economic Study

Costs: \$143,878 (2016) \$149,546 (2017)

Funding: 3 Flood Control Agencies and SAWPA Member agency Contributions

Environmental Support

Santa Ana River Fish Conservation

- Collaboration among local, State and Federal agencies
- Habitat and population monitoring Riverwalk
- Supports good will with water resource agencies

Arundo Mgmt & Habitat Restoration

- Develops and funds small habitat restoration projects
- Maintains restored habitat funded by **Prop 13 Water Bond**

Benefits:

- Assists local agencies in recharge and flood maintenance activities in continuing work
- Increased water flow for recharge by Arundo removal
- Regional support for environmental assets and mitigation opportunities



Costs: \$322,761 (2016) \$535,182 (2017)

Funding: Member and Other Agency Contributions, Mitigation Credit Sales, and Fund Balance

Carryover

Accomplishments and Future Work

- Obtained SEP grant funding (\$62K) from Regional Board and US Fish and Wildlife (\$37K) for sucker habitat project
- Fish Conservation Team is viewed as successful example of collaboration and voluntary monitoring by State and Federal Fish and Wildlife agencies.
- 100s of additional acres of Arundo removal and maintenance conducted which provides more water to flow downstream

Future Work

- Habitat restoration project in the Santa Ana River for Santa Ana Sucker river will be implemented upon ACOE and Regional Board permitting – increasing Sucker habitat and populations
- Continuing Riverwalk and Arundo removal
- Continued support to remove all terrain vehicle use in habitat areas thereby reducing mitigation requirements on water agencies necessary to increase Sucker populations

Emerging Constituents (EC)

- Complies with Regional Board Resolution under Cooperative Agreement for Imported Water Recharge
- Completed 2010-2013 Annual Sampling reports for emerging constituents
- Implements safe tap water public outreach program based on SAWPA commission direction to respond to Environmental Working Group misinformation

Benefits:

- Alternative to new regulation for recharge saving \$100,000/yr in avoided long term EC monitoring costs
- Better regional evaluation of ECs which drove ability to frame discussion on ECs at State level to our benefit
- Corrects misinformed media exposure through outreach

Costs: \$ 57,638 (2016)

\$ 59,166 (2017)

Funding: Members and Other Agency Contributions

2013 Sampling Report for Emerging Constituents in the Santa Ana Region







Santa Ana Watershed Project Authority



Emerging Constituents Task Force

Task force includes involvement of many others organizations besides SAWPA member agencies.

- Water Retailers
- Wastewater Treatment Operators
- Regional Board Staff
- CDPH Staff
- USGS Staff
- Analytical Lab Staff
- NWRI Staff
- Environmental NGOs



Accomplishments and Future Work

- Annual EC monitoring reports 2010-2013
 provided important data and information to guide
 SWRCB Blue Ribbon Panel on required EC
 monitoring constituents reduced number of
 ECs (100s) down to seven saving over
 \$100,000/yr watershed wide
- No plans to continue EC monitoring at this time

Future Work

 Your So Cal Tap Water water blog and other social media on drinking water safety are expected to continue provide value in responding to misinformation by EWG and media. **Forest First**

- Implement support to US Forest Service and SAWPA Agreement
- Quarterly meetings among Forest Service, water recharge and flood control agencies to support future projects and grant applications

Benefits

- US Forest Service as institutionalized SAWPA relationship as a template for others in the State.
- Protection of water quality by reducing catastrophic fires
- Release of more water to downstream via the river and tributaries
- Reduces debris flows to downstream recharge basins
- Promotes interagency cooperation with local and Federal agency



Costs: \$54,569 (2016)

\$56,227 (2017)

Funding: Outside agencies

Accomplishments & Future Work

- Initial cost benefit studies have been completed for forest management
- Support provided which engendered grant application from Forest Service under Prop 84 Round 2

Future Work

- A new task force composed of flood control management and water recharge agencies is anticipated. High intensity flood events are minimized through more forest rainfall adsorption
- Improved water efficiency, better water quality, reduced compliance costs, conflict resolutions through forest management

Lake Elsinore & San Jacinto Watersheds Authority (LESJWA) Administration

- SAWPA is the administrator of the LESJWA JPA
 - All management, meeting agendas, memos, minutes, audit, etc.
- Constructs projects that benefit Lake Elsinore, Canyon Lake, and upper watershed water quality
- Provides staff support to Lake Elsinore and Canyon Lake Nutrient TMDL Task Force

Benefits:

- Healthy lake no "major" fish kills
- Reduced overhead cost to SAWPA

Costs: \$100,000 (2016)

\$100,000 (2017)

Funding: LESJWA member agencies

contributions - \$20K/yr each SAWPA member agencies -

\$2K/yr

Lake Elsinore & San Jacinto Watersheds Authority



City of Lake Elsinore • City of Canyon Lake • County of Riverside Elsinore Valley Municipal Water District • Santa Ana Watershed Project Authority



Accomplishments & Future Work

- Watershed approach to improving lakes quality
- Economic benefit to community along with improved image
- Improved cooperation among local agencies
- All local agencies pitched in more to make LESJWA financially sustainable for future

Future Work

 LESJWA serves as the legal authorizing agency for the LE/CL TMDL Task Force. All work contracts of task force must go through LESJWA for authorization and contracting.

Proposition 50, 84 and Prop 1 IRWM

- SAWPA is the accepted as the integrated regional water management (IRWM) group for future IRWM work in the watershed
- Submitted successful project grant applications under Prop 50, Round 1, 2, Drought Round and 2015 Round under DWR's IRWM implementation program.
- SAWPA will be responsible for all audits and review of implemented Prop 50, Prop 84 and Prop 1 projects for 10 years after project completions.



- •25 million total from Prop 50
- •\$114 million –total from Prop 84 IRWM
- •\$65 million total from Prop 1

OWOW - Watershed Management Plan

- Integrated Regional Water Management Plan for Santa Ana River Watershed
- Foundation for IRWM funding
- State recognized template for high-quality integration and collaboration
- Support for OWOW Steering Committee and OWOW Pillars
- OWOW Call for Projects and Project Review

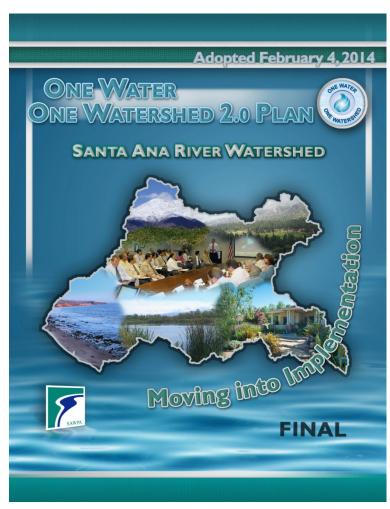
Benefits:

- Improved collaboration and cooperation among all watershed participants
- Increased potential for additional State and Federal funding
- Showcases SAWPA's leadership in regional water management

Costs: \$ 298,949 (2016)

\$ 298,725 (2017)

Funding: Member Agency Contributions



Accomplishments and Future Work

- Adopted OWOW 2.0 Plan in Feb 2014, received perfect score from DWR
- Worked effectively in revised OWOW Pillar team and coordinated with OWOW Steering Committee
- Included cascading water project concept which led to SARCCUP

Future work

- Revisions to OWOW plan to include Stormwater Resource Plans, requirement under Prop 1
- Expand list of eligible projects
- Expanded outreach for DAC Involvement
- Conduct new Call for Projects and Project Selection for IRWM in 2017

Prop 84 IRWM Drought Grant Implementation

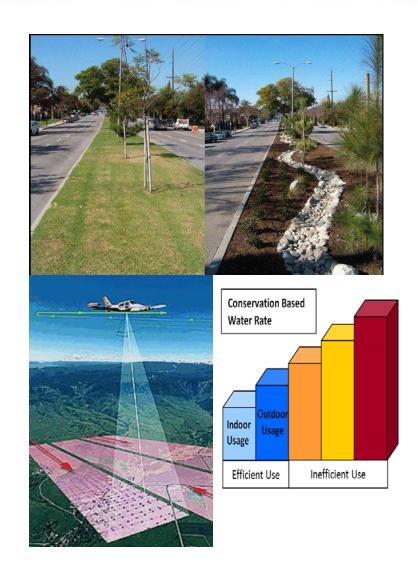
- Implements grant funded tasks –
 aerial mapping and area
 measurement, conservation tools,
 budget based water rate support and
 turf removal
- Administered through PA 22
 Committee, policies and direction meets monthly
- Technical Advisory Committee meets monthly

Benefits: Upon implementation over three years over 8725 AF/YR in water savings are anticipated in watershed

Costs: \$196,872 (2016)

\$204,935 (2017)

Funding: All costs fully funded by grant



Accomplishments & Future Work

- Successful sign up of over 10 agencies for budget based rate support
- Conducted effective outreach video and workshops
- Completed aerial survey and most of area measurement

Future Work

- Inviting more retail agencies to use available conservation tool – 10 signed up
- Providing support to retail agencies in budget based water rate implementation and using provided areal imagery

DWR Water Energy Grant Implementation

- Provides water and energy savings to disadvantaged communities
- Projects include turf removal and retrofit, outreach, in-home energy retrofits
- Collaboration and MOUs with four retail agencies and their wholesale agencies

Benefits

- Regional approach to water and energy savings
- Supports watershed sustainability and water demand reduction



Costs: \$ 938,985 (2016) \$ 941,539 (2017)

Funding: \$2.34 million grant Expenses incurred starting in FYE 2015. \$520,000 local match

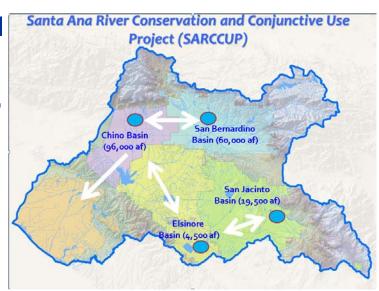
Future Activities

- Management, administration and oversight of multiple contracts – outreach, landscape contractor, Smartscape Maintenance Manual-OC Coastkeeper
- Partnering Agencies
 - City of Santa AnaSB Community Action Partnership
 - Fontana Water Company OC Community Action Partnership
 - WMWD
 RIV Co Community Action Partnership
 - SBVMWD Orange County Coastkeeper
 - West Valley Water DistrictIEUA
 - Jurupa Community Services District
- Reaching out to 320+ homes 260,000 SF landscaping retrofit
- Reaching out to 1000+ homes for energy retrofit
- 23 million gallons saved per year
- 5.4 million KWH saved

Prop 84 2015 IRWM Grant – SARCCUP Implementation

- Under SARCCUP, SAWPA will expand budget based water rate support to retail agencies
- Administered through PA 22 Committee, policies and direction – meets monthly
- Technical Advisory Committee meets monthly

Funding: \$55 million Prop 84 \$45 million SAWPA member agencies



Past and Future Activities

- Participated and provided input at SAWPA member agency Planning Manager and GMs meetings about SARCCUP development and application
- Reviewed and provided input on Decision Support Tool to assist with SARCCUP
- Will monitor and provide input on SARCCUP Decision Support Tool and Master Plan

Prop 1 IRWM Grant

Future IRWM grant applications

2015-16 Disadvantaged Communities

(DAC) Involvement

2016-17 DAC projects

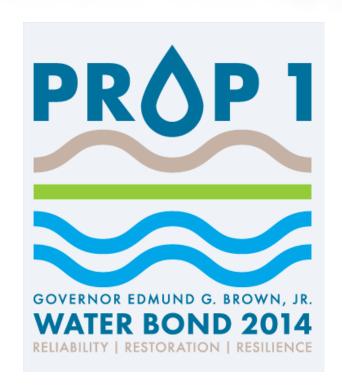
2017-18 Round 1

2019-20 Round 2

Funding: \$65 million

Benefits:

- Continues OWOW goals and objectives
- Continues support for multi-benefit projects
- Expands support to DACs and economically stressed areas



Past and Future Activities

- Participated in DWR Stakeholder Outreach Committee to review and provide input on DWR approach to administer Prop 1 IRWM grant due to recognition of OWOW as a leader in IRWM planning.
- Participated in quarterly coordination meetings with DWR on CA IRWM Strategic Plan. SAWPA's OWOW was included as success story and template in multiple milestone reports.
- Provide written comments on proposed guidelines. New guidelines and PSP should be released by DWR in Jan. 2016.

