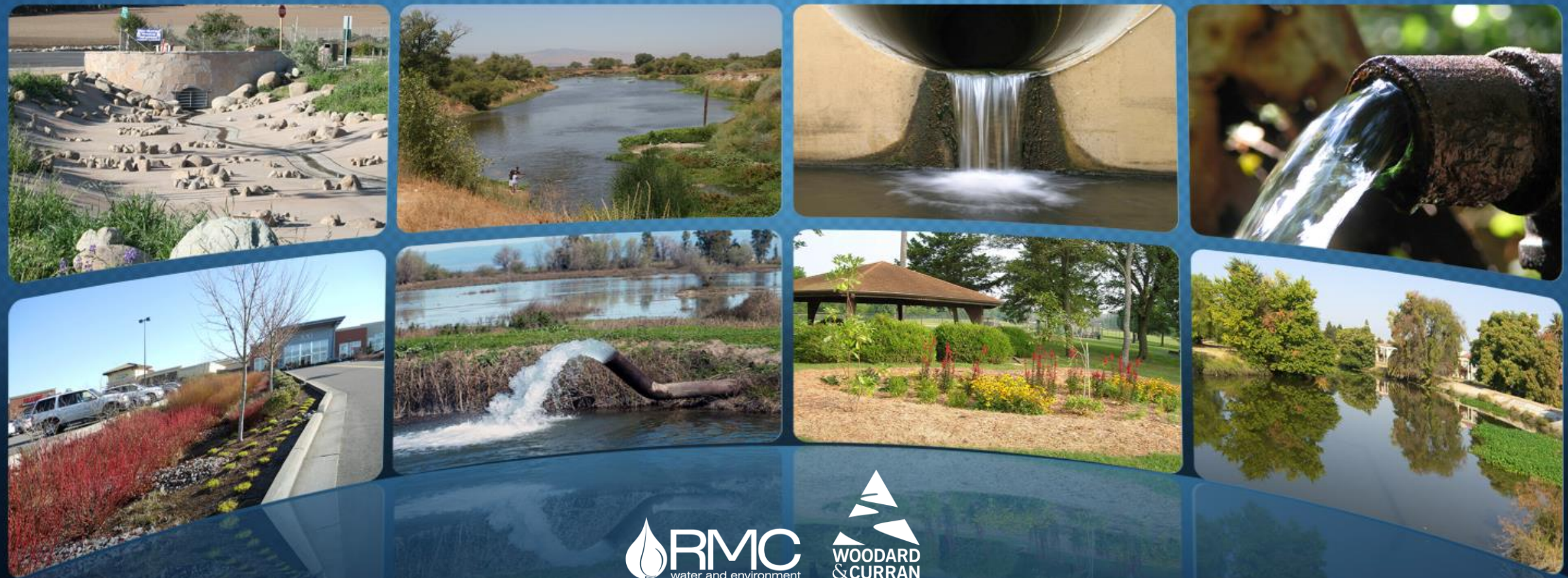
Stanislaus County
Striving to be the Best

STORM WATER RESOURCE PLAN

TAC KICKOFF MEETING

October 5, 2017

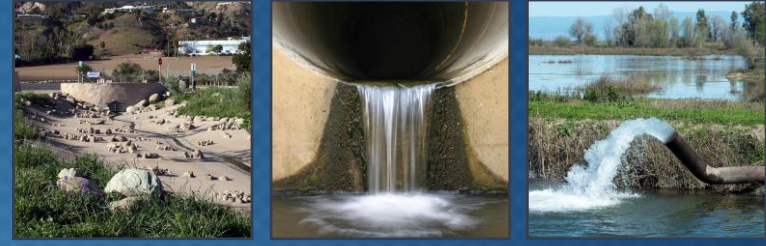
Presenters: Hawkeye Sheene, Brian Van Lienden



RMC water and environment

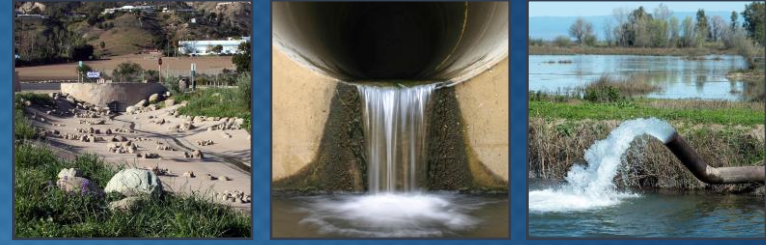
WOODARD &CURRAN

National Experience. Local Focus.

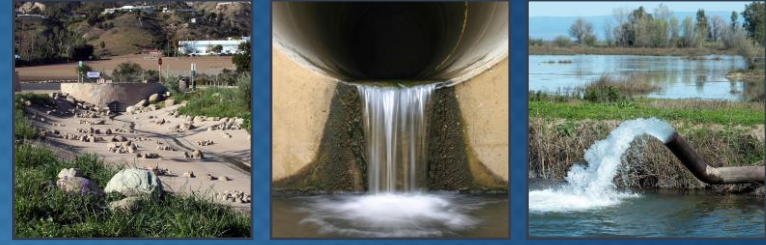


Agenda

- Introductions
- SWRP Overview
- SWRP Schedule
- TAC Roles and Responsibilities
- SWRP Goals and Objectives
- Watershed/Planning Area Identification
- Watershed/Planning Area Priorities
- Project Prioritization
- Next Steps



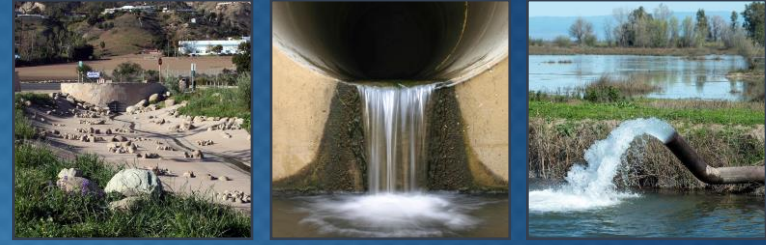
SWRP Overview



What is a SWRP?

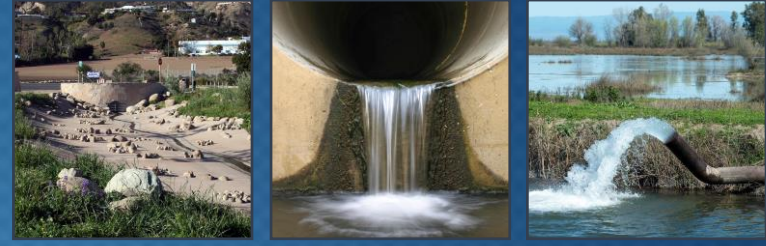
Integrated plan focusing on regional watershed-based storm water priorities and developing multiple benefit projects for upcoming funding opportunities

Stanislaus Multi-Agency Regional Storm Water Resource Plan



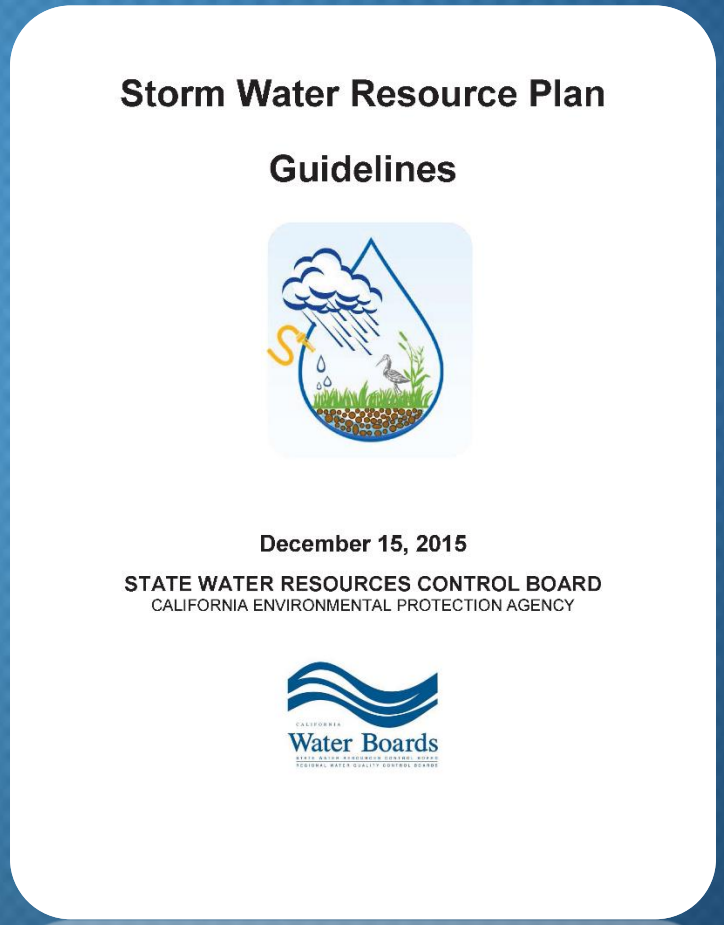
- Stanislaus County was awarded SWRCB Prop 1 grant funding to complete a Storm Water Resource Plan (SWRP) by July 2018

- This SWRP is required to receive state grant funding for storm water and dry weather runoff capture projects

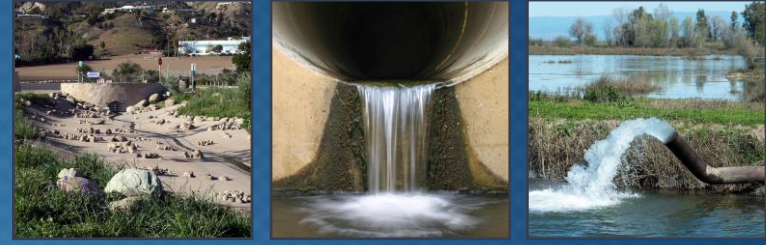


Major SWRP Requirements

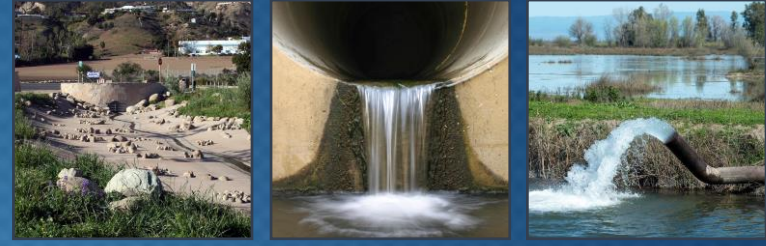
- Watershed/Planning Area Identification
- Water Quality Compliance
- Organization, Coordination, Collaboration
- Quantitative Methods
- Identification and Prioritization of Projects
- Implementation Strategy and Schedule
- Education, Outreach, Public Participation



Project Tasks

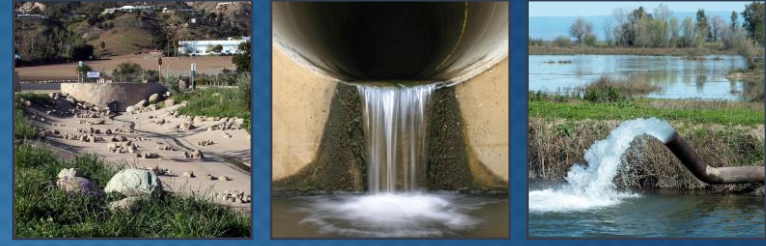


- Task 1: Project Management
- Task 2: Monitoring
- Task 3: Technical Advisory Committee
- Task 4: Data Collection and Watershed Identification
- Task 5: Storm Water Resource Plan Development
- Task 6: Technical Studies to Support Development of SWRP
- Task 7: Stakeholder Outreach, Education, and Public Participation



SWRP Schedule

Project Timeline



Anticipated funding solicitation

2017 | **2018**

AUG | AUG-NOV | OCT-DEC | MAR | APR-JUN | JULY

Establish TAC

Develop SWRP Components and Protocols

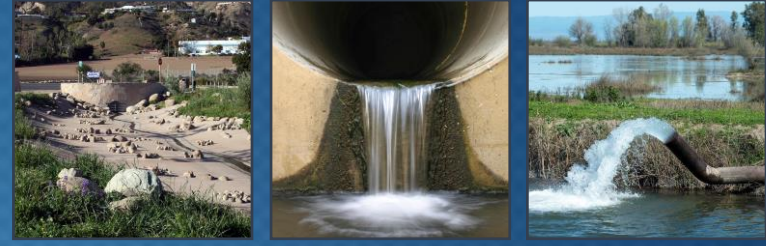
Solicit and Prioritize Projects

Draft Storm Water Resources Plan

Address Comments on Plan

Final Storm Water Resources Plan

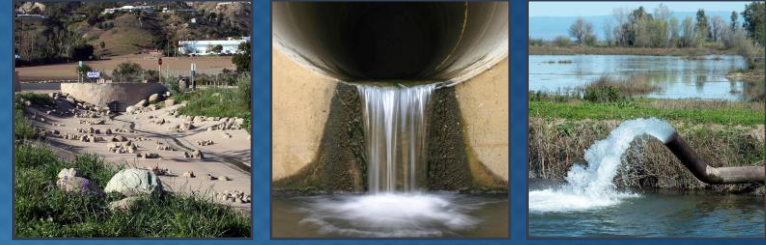
RMC water and environment | WOODARD & CURRAN



Key Dates

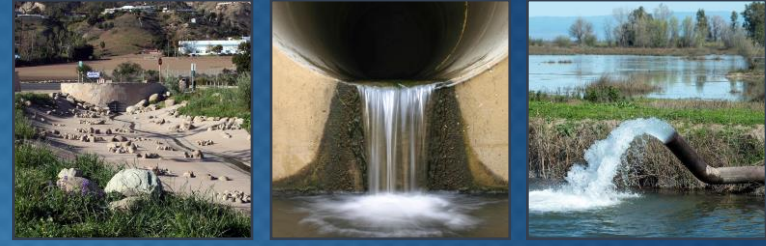
- Important Dates
  - Data Collection – ASAP
  - GIS Database and List of Reports/Date – October 2017
  - Planning Area/Watershed Identification & Description – October 2017
  - Project Solicitation (Call for Projects) – October 2017 (1-2 months)
  - Prioritization Tools – November 2017
  - Project Prioritization List – December 2017

- Critical Dates
  - Administrative Draft SWRP – March 2018
  - Final SWRP – July 2018



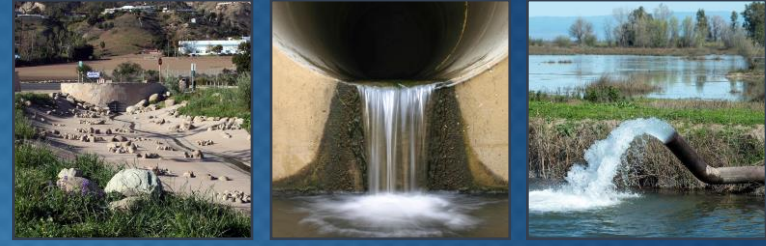
TAC Roles and Responsibilities

TAC Roles and Responsibilities

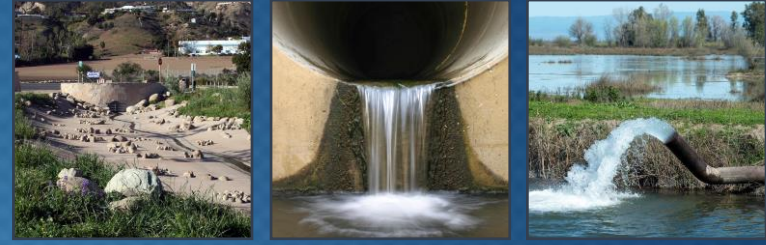


- Provide input on project assessment and prioritization process development
- Facilitate stakeholder outreach
- Provide available reports and data
- Solicit multiple-benefit storm water projects
- Provide comments on SWRP elements via email and meet feedback deadlines

TAC Review and Comment Process

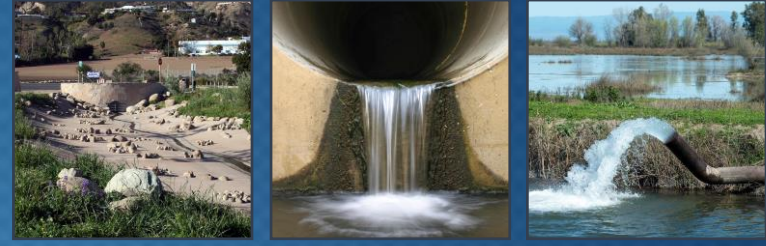


- Accelerated review schedule - approximately 3-5 working days
- TAC review and comment by email
- TAC review and comment at meetings

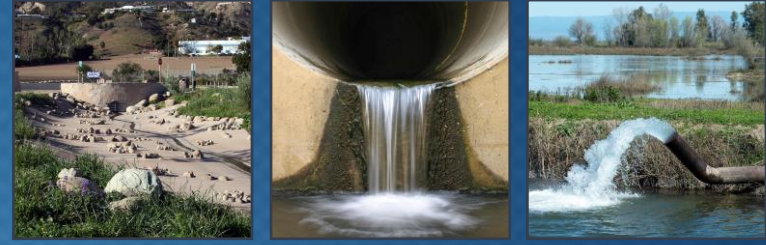


Proposed Meeting Schedule

TAC Meeting Schedule and Topics

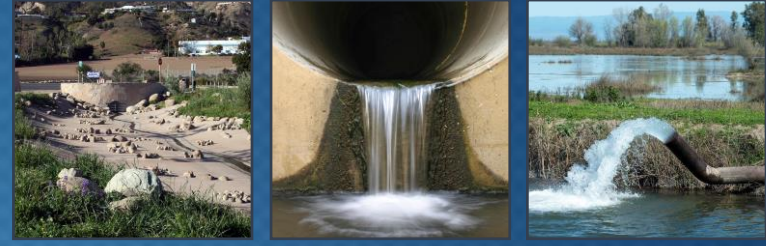


Meeting	Month	Meeting Topic/Purpose	Face-to-Face	Conference Call/Webinar
TAC Kickoff Meeting	October 5, 2017	Kickoff meeting (SWRP process, schedule and goals); Proposed project solicitation and prioritization process	✓	
TAC Meeting #1/ Stakeholder Meeting #1 (Coordinate with ESIRWMP SC/PAC Meeting #6)	October 23, 2017	Project solicitation opens; project prioritization process	✓	
TAC Meeting #2 (Coordinate with ESIRWMP SC/PAC Meeting #7 / ESIRWMP Meeting #2)	November 2017	Project solicitation, Project Website	✓	
TAC Meeting #3/ Stakeholder Meeting #2 (Coordinate with ESIRWMP Meeting #3)	December 2017	Project prioritization results	✓	
TAC Meeting #4	January 2018	SWRP Draft Implementation Strategy, Special Studies Update; Outreach Update		✓
TAC Meeting #5	March 2018	SWRP Administrative Draft review and comment		✓
Public Workshop #1	April 2018	Public Draft presentation and comment solicitation	✓	

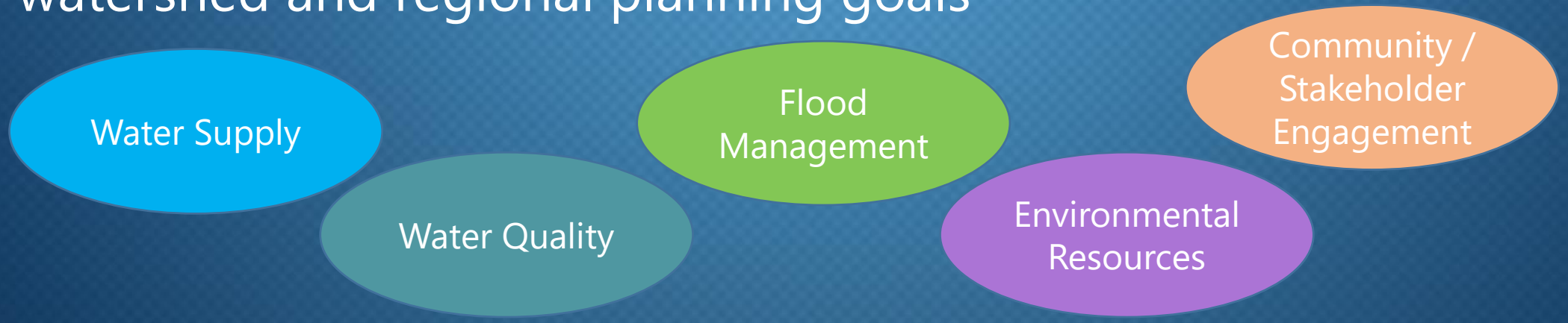


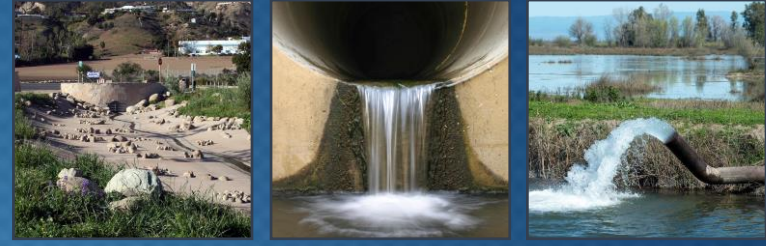
Goals/Objectives

Proposed SWRP Goals and Objectives

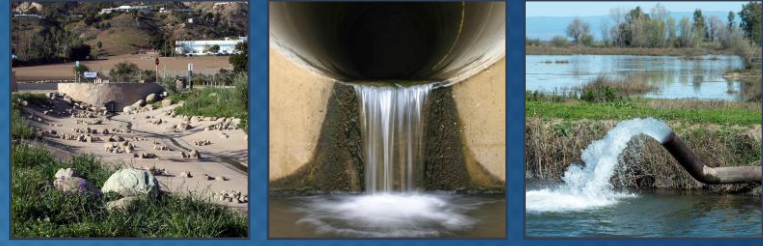


- Provide regional watershed-based planning to address challenges and opportunities for managing storm water and dry weather runoff
- Identify and prioritize storm water and dry weather runoff projects that provide multiple benefits to help achieve watershed and regional planning goals





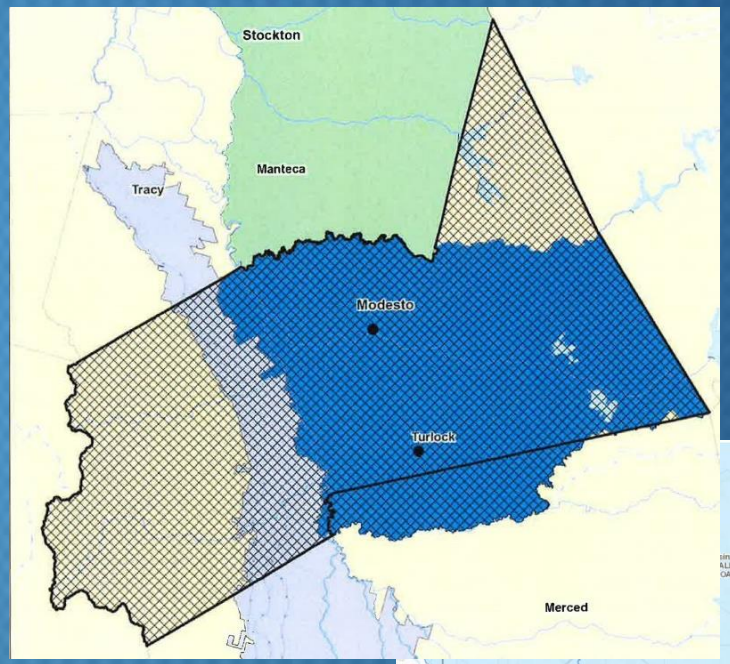
Watershed/Planning Area Identification

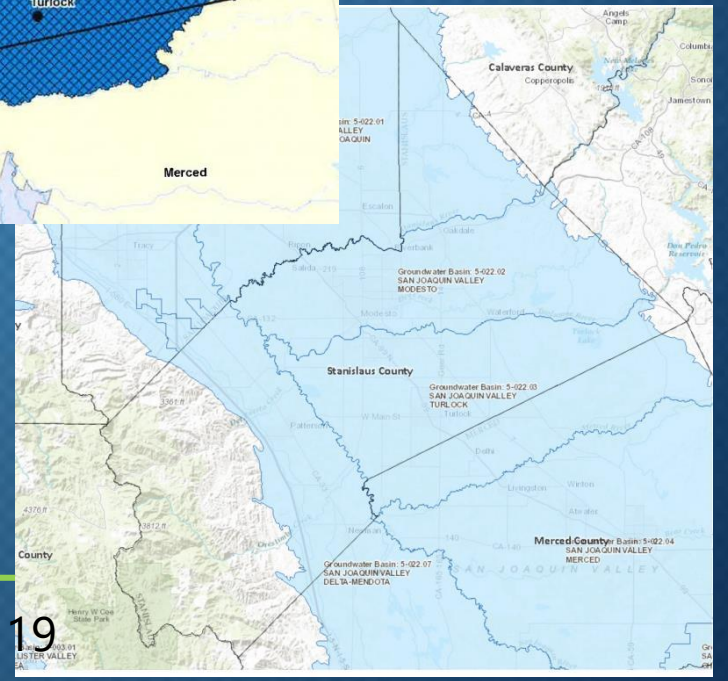


Watershed Identification

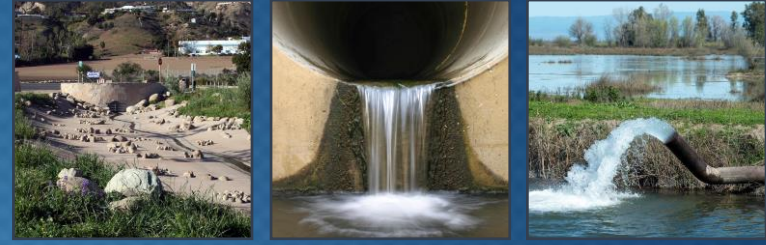
SWRP Planning Area: Stanislaus County

- East Stanislaus and Westside San Joaquin IRWMP areas
- Stanislaus and Tuolumne Rivers Groundwater Basin Association, Turlock Groundwater Basin Association, and San Luis & Delta-Mendota Water Authority groundwater management plan area

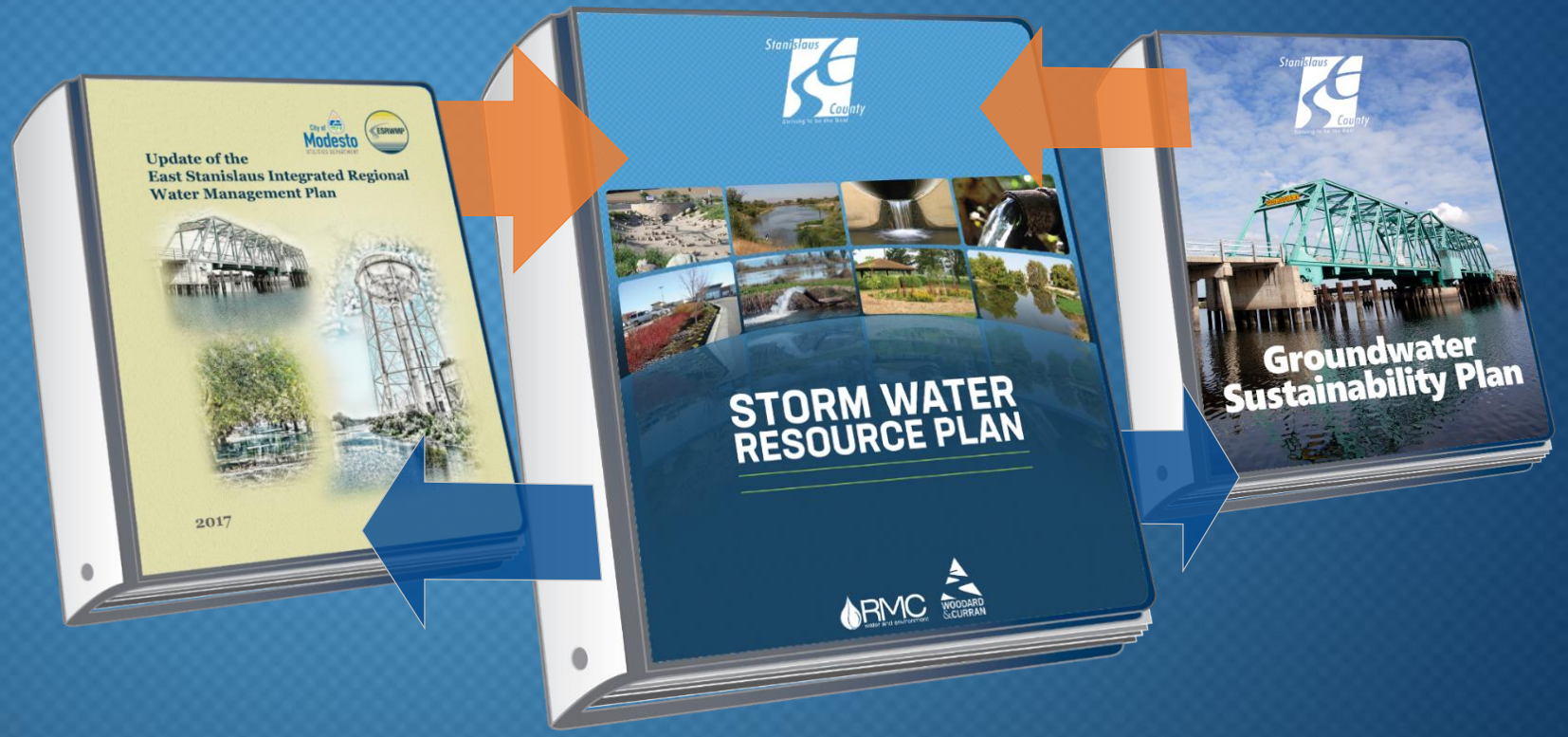




SWRP Planning Area: Stanislaus County

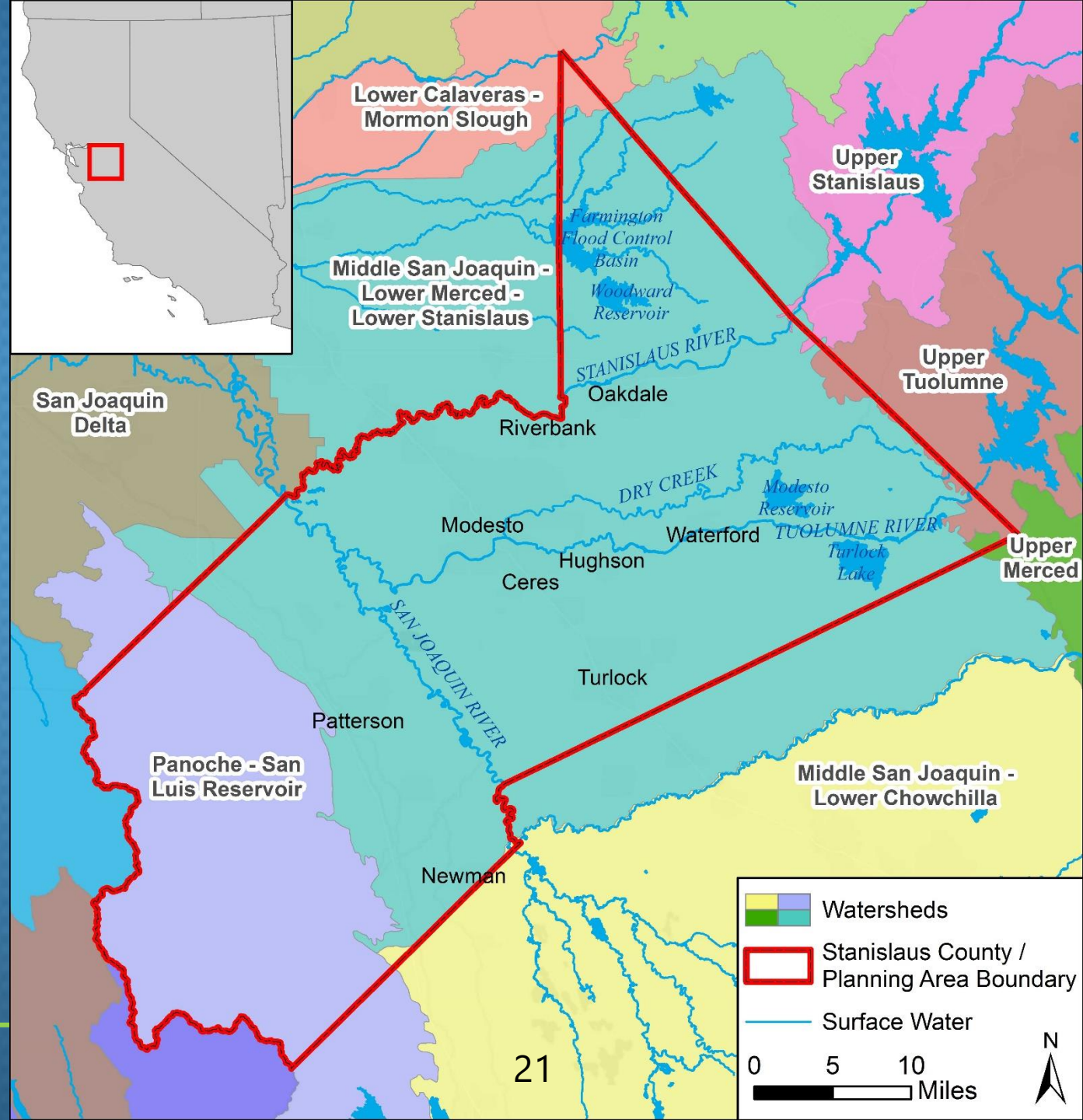


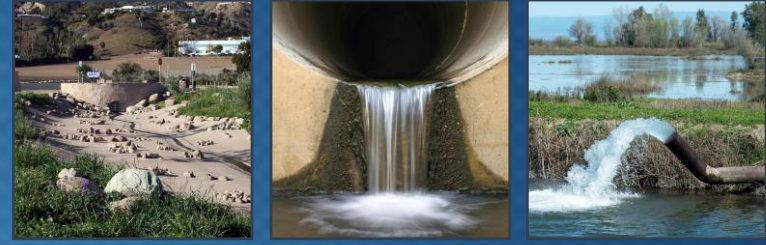
Coordination between concurrent water resource planning areas facilitates effective regional water planning



Watershed Identification

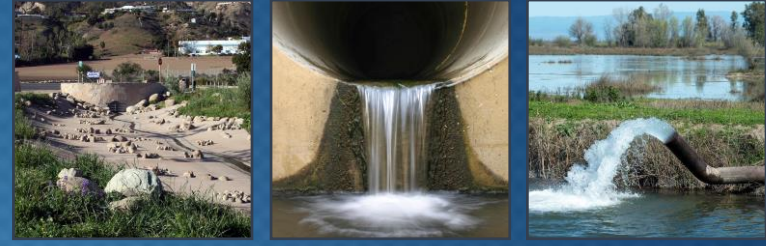
- Planning area: Stanislaus County
- 6 Watersheds
- Main Watersheds:
  1. Middle San Joaquin – Lower Merced – Lower Stanislaus
  2. Panoche – San Luis Reservoir
- Other Watersheds
  - Upper Tuolumne, Upper Stanislaus, Upper Merced, Lower Calaveras – Mormon Slough





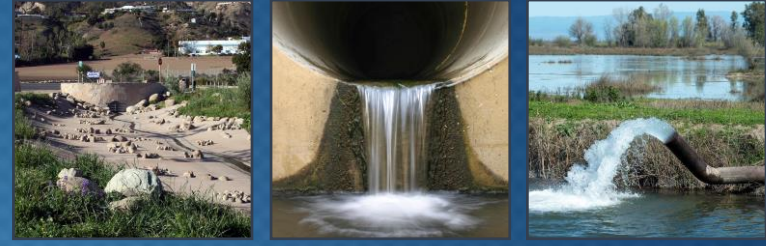
Watershed Priorities

Watershed Priorities: Water Resource Priorities

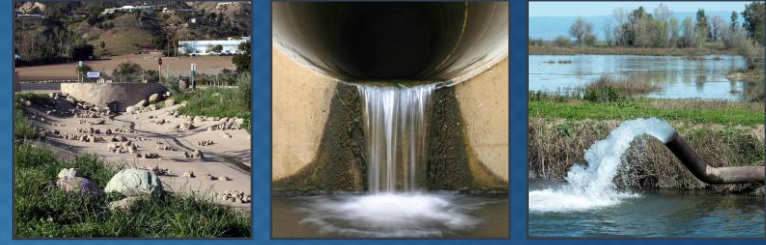


- Implement water quality improvements to support TMDL goals
- Reduce discharge into 303(d) Listed Impaired Waterbodies
- Implement storm water capture/groundwater recharge into groundwater basins (where feasible)
- Other priorities?

Watershed Priorities: Water Quality

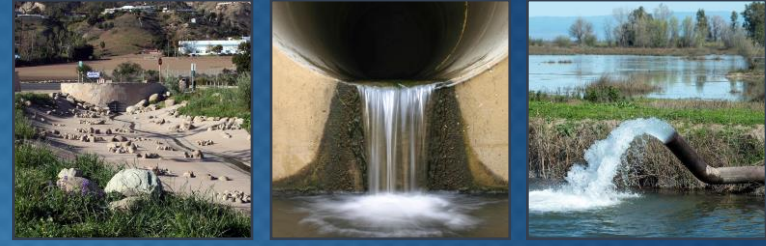


- Mercury / Methylmercury
- Diazinon
- Chlorpyrifos
- Selenium
- Salt / Salinity
- Boron
- Diuron
- Low Dissolved Oxygen (Nitrogen (Ammonia and Nitrates) and Phosphorus)
- Bacteria



Project Solicitation and Prioritization

Project Timeline



Anticipated funding solicitation

2017 **2018**

AUG | AUG-NOV | OCT-DEC | MAR | APR-JUN | JULY

Establish TAC

Develop SWRP Components and Protocols

Solicit and Prioritize Projects

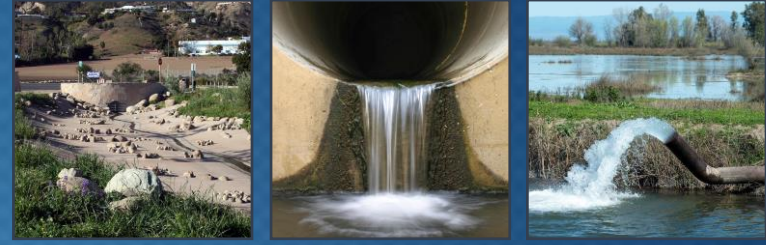
Draft Storm Water Resources Plan

Address Comments on Plan

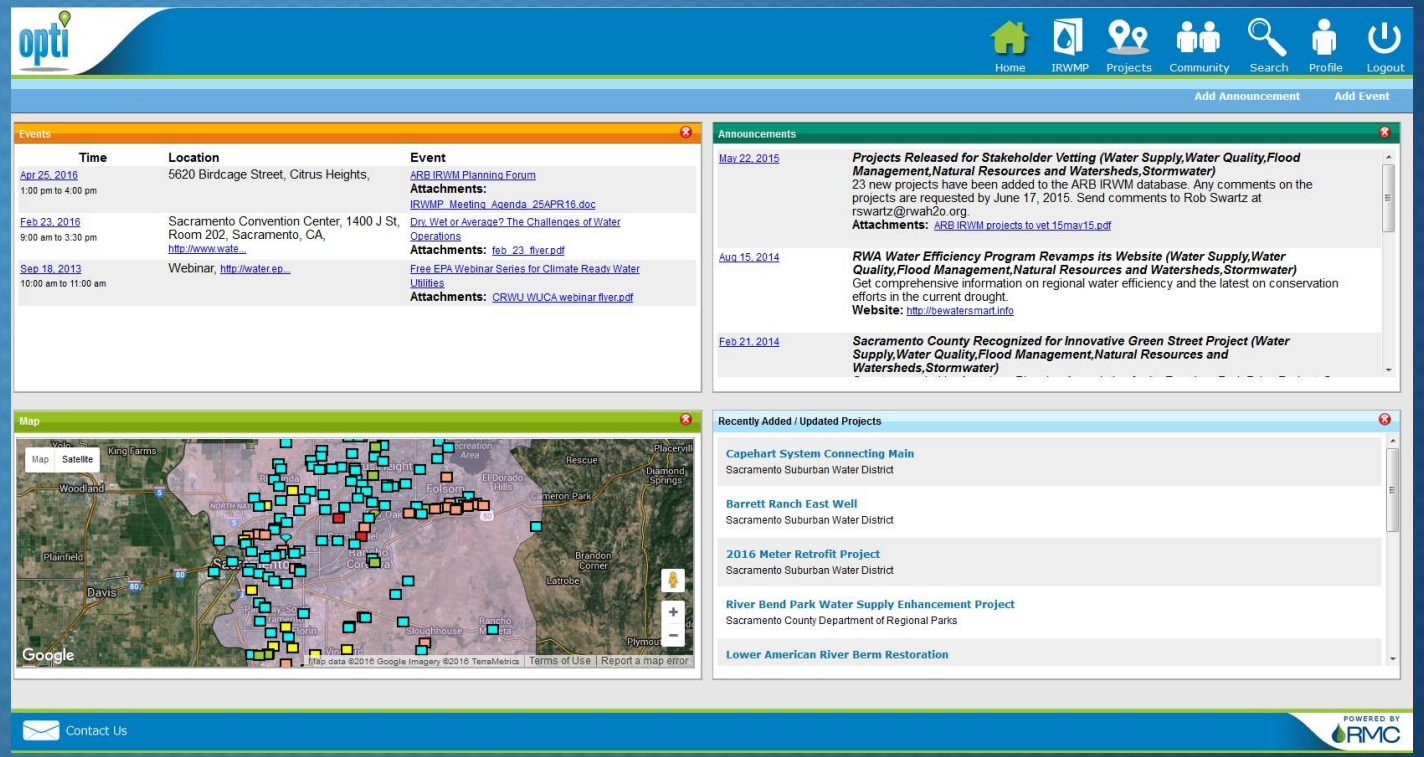
Final Storm Water Resources Plan

RMC water and environment | WOODARD & CURRAN

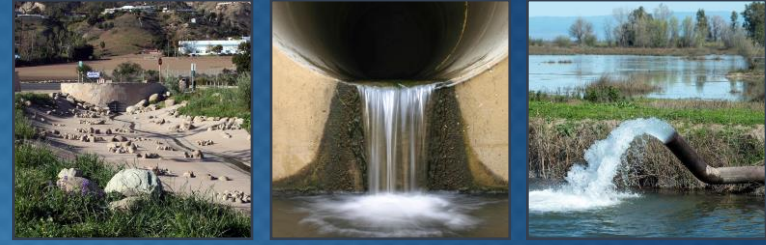
Project Solicitation



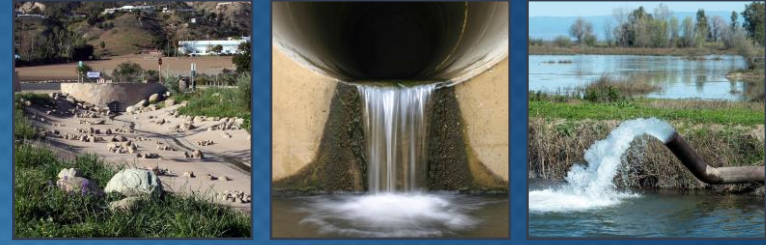
- Utilizing Opti Data Management System
- Requesting same basic project info as ESIRWM
  - Location, description, status, etc.
- Requesting additional info specific to SWRP:
  - Project eligibility
  - Watershed priorities
  - SWRP Main Benefits and Additional Benefits



Project Benefits



Project Prioritization

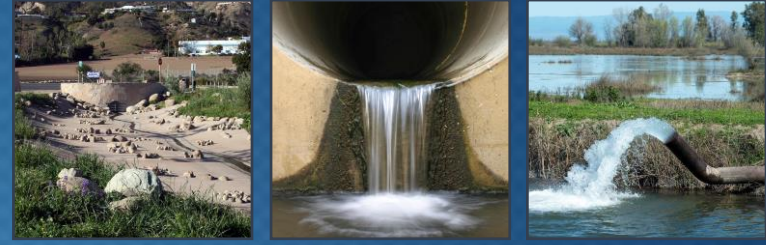


- *[A Storm Water Resource Plan] shall use measurable factors to identify, quantify, and prioritize potential storm water and dry weather runoff capture projects.* (Wat. Code, § 10562, subd. (e).)

- Project Eligibility (Fatal Flaw Analysis)
  - Each Project must meet **all** of the following:

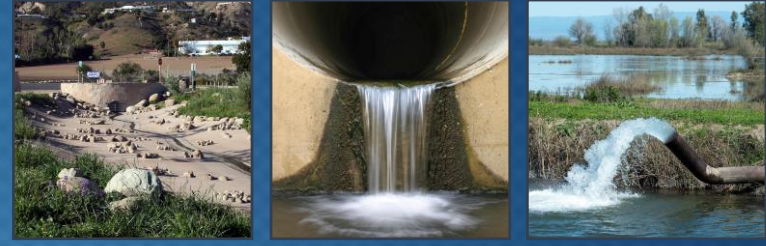
Can the project be sponsored by an eligible applicant?	**Yes/No**
Is the project a storm water or dry weather runoff project?	**Yes/No**
Does the project provide 2 or more SWRP Main Benefits?	**Yes/No**
Does the project provide at least one SWRP Additional Benefit?	**Yes/No**

Prioritization Guidance



- Prioritize individual projects or programs that:
  - Are supported by entities that have created permanent, local, or regional funding
  - Use a metrics-driven approach and geospatial analysis of multiple benefits to maximize water supply, water quality, flood management, environmental, and community benefits within the watershed
  - Are located on public lands
  - Augment local water supplies
  - Preserve, restore, or enhance watershed processes (yield water quality benefits and support beneficial uses)
  - Create or restore habitat, open space, parks, recreation, or green open space in DACs with a deficit of such areas.

Proposed Prioritization Approach

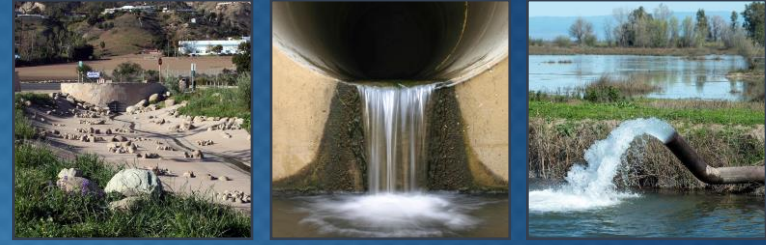


- Eligible Projects receive credit for:
  - Having permanent, local, or regional funding in place (4 points)
  - Addressing regional watershed priorities
  - Providing SWRP Main Benefits and Additional Benefits
- Projects prioritized based on points awarded to each project

Regional Watershed Priorities	Points
Located on public land?	4
Help achieve the goals of an existing TMDL?	4
Reduces discharges into a 303(d) Water Body?	2
Identified in an existing study/planning document?	2
Recharges storm water into a groundwater basin?	4

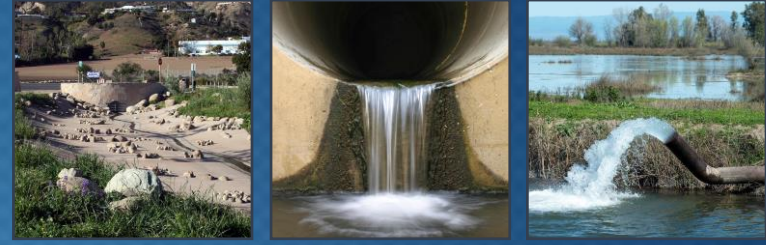
SWRP Main Benefits and Additional Benefits	Points
Providing SWRP Main Benefits	
Points per benefit provided	4
Additional points if a quantitative metric is provided	2
Providing SWRP Additional Benefits	
Points per benefit provided	2
Additional points if a quantitative metric is provided	1
Technical Document used to quantify benefits	
Design Document	4
Environmental Assessment/EIR	3
Feasibility Study	2
Another Planning Document	1

Next Steps



- Woodard & Curran
  - Complete data collection and watershed identification
  - Set up project solicitation and prioritization process
  - Start monitoring program
  - Start storm water capture/groundwater recharge analysis
- Next TAC Meeting
  - Monday October 23rd
  - Topic: Project Prioritization Process
  - In coordination with Stakeholder Meeting

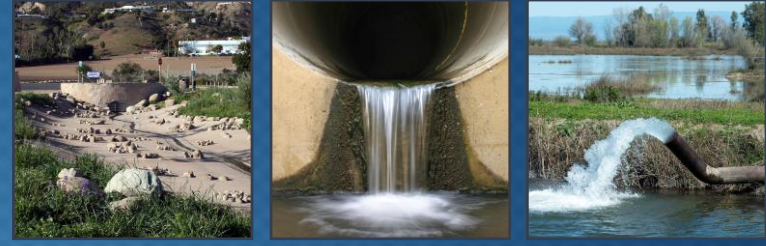
Questions/Comments?



Hawkeye Sheene
415.321.3427
hsheene@woodardcurran.com
RMC, a Woodard & Curran Company

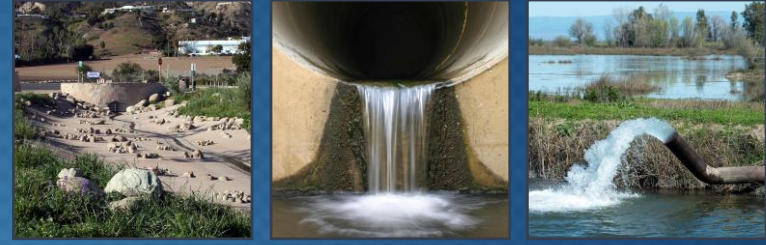
Leslie Dumas, P.E. D.WRE
916.999.8778
ldumas@woodardcurran.com
RMC, a Woodard & Curran Company

Main Benefits



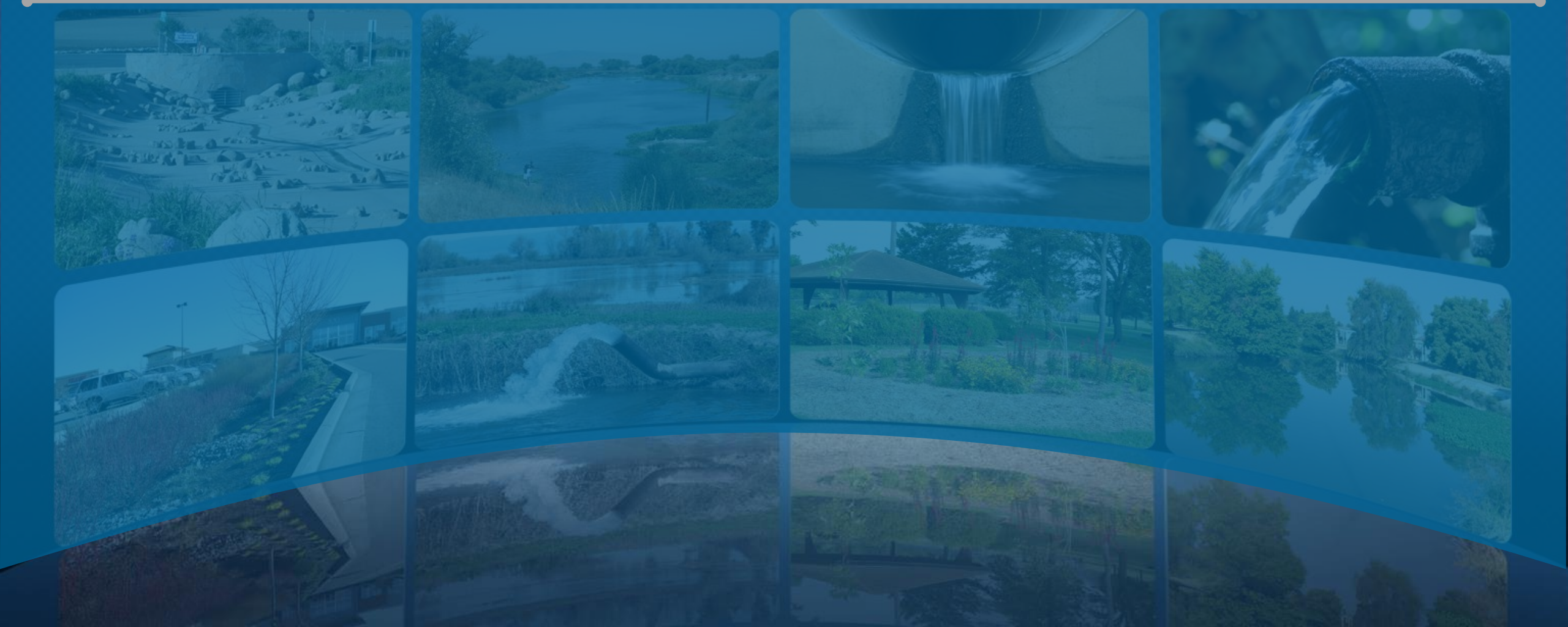
Benefit Category	Main Benefit
Water Quality	Increased filtration and/or treatment of water
Water Supply	Water supply reliability
	Conjunctive Use
Flood Management	Decreased flood risk by reducing runoff rate and/or volume
Environmental	Environmental habitat and/or improvement, including: - Wetland enhancement/creation; - Riparian enhancement; and/or Instream flow improvement
	Increased urban green space
Community	Employment opportunities provided
	Public education

Additional Benefits

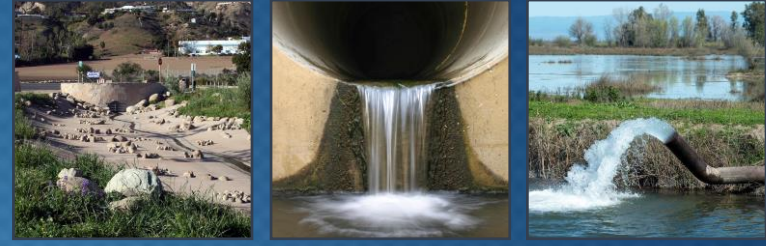


Benefit Category	Additional Benefit
Water Quality	Nonpoint source pollution control
	Reestablished natural water drainage and treatment
Water Supply	Water conservation
Flood Management	Reduced sanitary sewer overflows
Environmental	Reduced energy use, greenhouse gas emissions, or provides a carbon sink
	Reestablishment of natural hydrograph
	Water temperature improvements
Community	Community involvement
	Enhance and/or create recreational and public use areas

TAC Commitment Letters

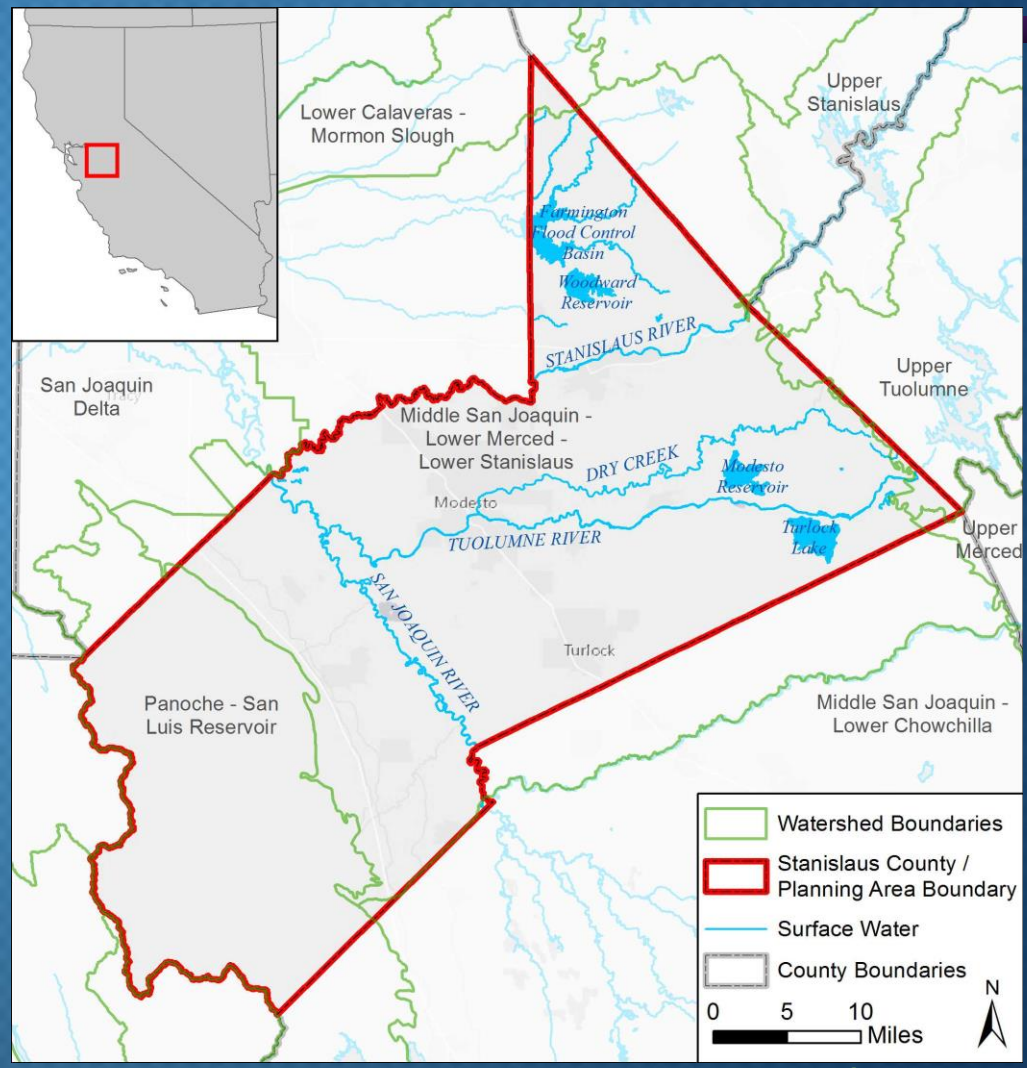


Watershed Identification

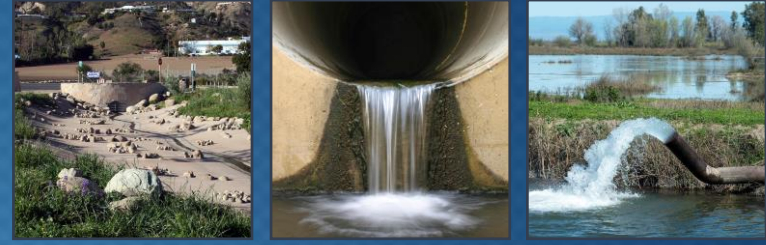


Sources:

- Watershed descriptions: general maps and GIS information
- Jurisdictional boundaries and service areas: UWMPs, AWMPs
- Watershed processes: CA Water Plan 2013 Regional Report, Mid-San Joaquin Regional Flood Management Plan, etc.
- Surface water resources: general maps, UWMPs, TMDLs, IRWMPs
- Groundwater resources: GWMPs, UWMPs, DWR Bulletin 118
- Water quality conditions: Basin plan, TMDLs
- County General Plan EIR, Master planning documents, Permits, Recharge studies, Disadvantaged community information, City and County ordinances

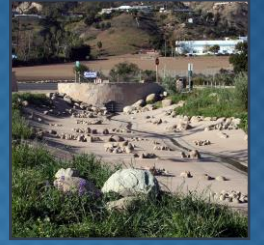


TMDLs



- Sacramento-San Joaquin Delta Methylmercury TMDL
- Sacramento-San Joaquin Delta Diazinon and Chlorpyrifos TMDL
- San Joaquin River Dissolved Oxygen TMDL (Stockton Deep Water Ship Channel)
- Lower San Joaquin River Diazinon and Chlorpyrifos TMDL
- San Joaquin River Selenium TMDL
- Lower San Joaquin River Salt and Boron TMDL
- Central Valley Pesticide TMDL

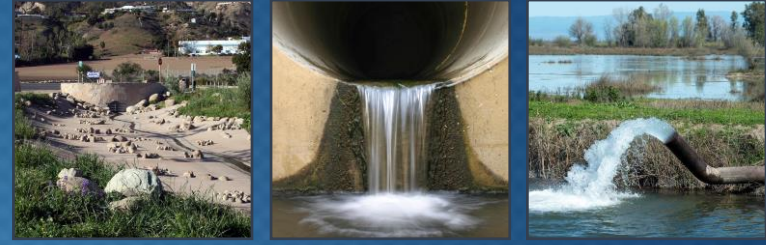
TMDLs



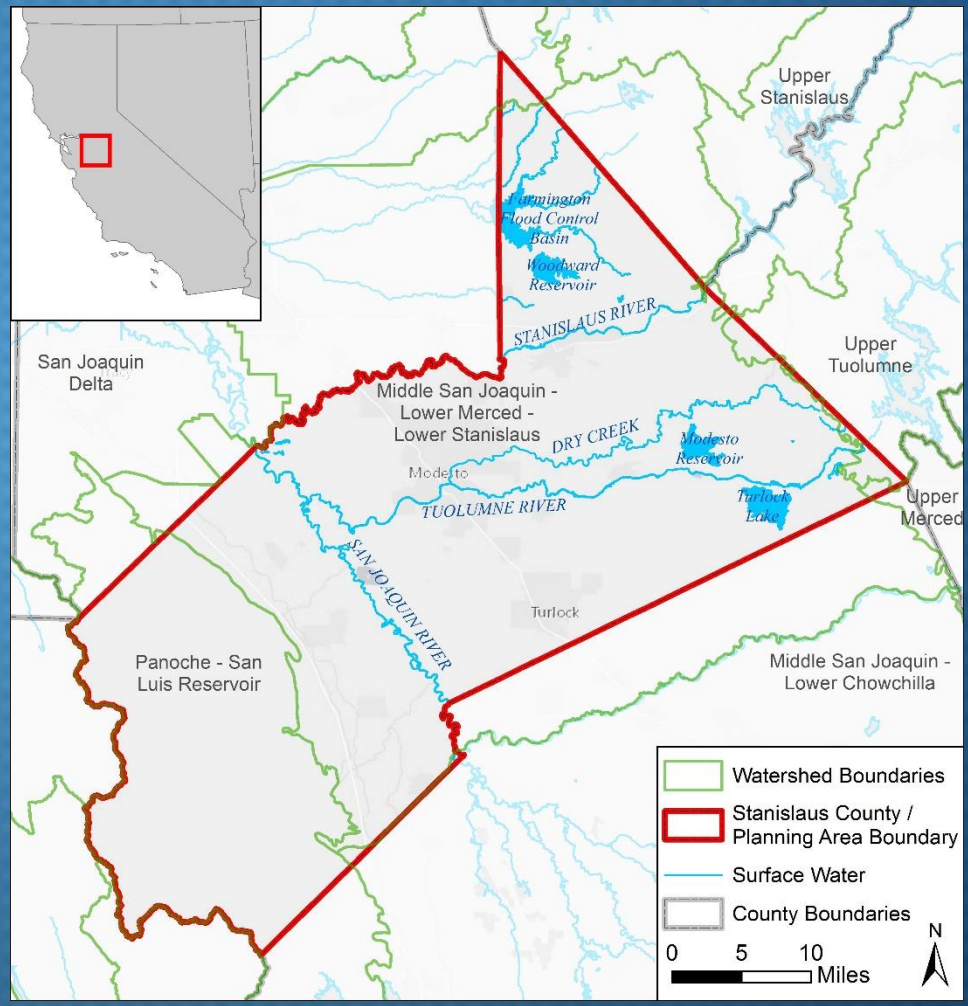
TMDL	Priority Pollutants	Pollutant Removal Unit (Reduction Indicators)
Methylmercury	Sulfate – measured via EC	µs/cm
	Total mercury in sediment	mg/kg
	pH	
	Fish tissue	mg/kg
Mercury	Total mercury (THg)	ng/L
	Total Suspended Solids (TSS)	mg/L
	Ratio between mercury and TSS (Hg/TSS)	mg/kg
	Concentrations of Hg in fish tissue	mg/kg
Diazinon	Ceriodaphnia dubia mortality	% mortality of population
	Ceriodaphnia mortality	% mortality of population
	Acute toxic units (TU_a)	µg/L
	Chronic toxic units (TU_c)	µg/L
Chlorpyrifos	Acute toxic units (TU_a)	µg/L
	Chronic toxic units (TU_c)	µg/L
Selenium	Selenium	µg/L
Salt / Salinity	TDS	mg/L
	EC (surrogate for TDS)	µs/cm
Boron	Boron	mg/L
Diuron	Diuron	µg/L
	NOEC (freshwater green algae)	µg/L
	EC_{50} (freshwater green algae)	EC_{50}
Dissolved Oxygen	Ammonia (as N)	mg/L
	Phosphate (much less significant)	mg/L
per 303(d) listed waterbody impairments, add bacteria and pyrethroids		

RMC water and environment
WOODARD &CURRAN

Planning Area Overview



- Entirety of Stanislaus County
- Includes 6 watersheds
- Includes Tuolumne, Stanislaus, and San Joaquin Rivers
- Cities of Modesto, Turlock, Ceres, Oakdale, Newman, Waterford, Riverbank, Patterson, Hughson



TECHNICAL ADVISORY COMMITTEE SIGN-IN SHEET – 10/5/2017				
NAME	AGENCY	PHONE #	EMAIL ADDRESS	ADDRESS
Dhyon Gilton	Stan County	525-7538	~~Dhyon Gil~~ GiltonD@StanCounty.com	1010 Tenth St Modesto, CA 95354
Jim Alves	City of Modesto	209 571-5557	jalves@modestogov.com	1010 Tenth St. Modesto 95354
Maria Encinas	City of Patterson	(209) 895-8041	mencinas@ci.patterson.ca.us	PO Box 667 Patterson, CA 95363
Karen Morgan	city of Waterford	209.874.2328 x 111	kmorgan@cityofwaterford.org	101 East Waterford Ca 95386
Leslie Dumas	Woodard & Curran	916-999-8778	ldumas@woodardcurran.com	1545 River Park Dr. St-425 Sacramento
Frederic Clark	Stanislaus County	209.525.4302	clarkf@stancounty.com	1010 Tenth St. Ste 304 Modesto CA 95354
Miguel Alvarez	City of Modesto	209 577-5348	malvarez@modestogov.com	1010 Tenth Street Modesto CA 95354
Hawkeye Sheene	Woodard & Curran	415-321-3400	hsheene@woodardcurran.com	101 Montgomery St Ste 1850 San Francisco CA 94104
BRIAN VAN LIENDEN	W+C	916.999.8700	bvan lienden@woodardcurran.com	1545 RIVERPARK DR SACRAMENTO CA