Amend One Water One Watershed Plan Update 2018 for Stormwater Plan Projects

OWOW Steering Committee Item No. 4.B Ian Achimore Senior Watershed Manager November 16, 2023





Recommendation

Amend the One Water One Watershed Plan Update 2018 to include the 24 projects submitted to Riverside County Stormwater Resource Plan.

Riverside County Santa Ana Region SWRP

- Stormwater Resource Plan (SWRP) focus: Stormwater and dry weather runoff capture projects/studies.
- Other SWRPs in the Santa Ana River Watershed:
 - Orange County SWRP
 - Chino Basin SWRP
 - San Bernardino SWRP



OWOW Plan

- The OWOW Plan Update 2018 serves many roles in the Watershed, chiefly as the State-approved Integrated Regional Water Management (IRWM) Plan for the Santa Ana Funding Area within the State-wide IRWM Program.
- The OWOW Steering Committee, along with the SAWPA Commission, serve as the Regional Water Management Group, a State-approved entity that makes planning and grant funding decisions associated with the IRWM Program.
- As Riverside County (and others) are within the Santa Ana Funding Area, this RWMG "shall review and consider integrating" SWRPs into the OWOW Plan Update 2018.



Riverside County SWRP Call for Projects

- From June 3 to August 3, 2023 Riverside County Flood held a Call for Projects as an opportunity for entities to have their projects/plans included in the SWRP.
- Projects/plans had to provide at least two benefits, capture, treat, infiltrate, and/or use stormwater or dry weather runoff for multiple benefits

Projects were ranked using the following priority list:

Quantified Benefits (30%)

> Watershed Priorities (25%)



Projects Submitted to SWRP

- SAWPA submitted two feasibility study concepts, which were shared with the Steering Committee on July 27, 2023.
- Projects/studies were also submitted by the following entities:
- City of Calimesa
- City of Corona
- City of Hemet
- City of Lake Elsinore
- City of Perris
- City of Riverside

- City of Wildomar
- Eastern Municipal Water District
- Jurupa Community Services District
- **Riverside County Flood**
- University of California, Riverside





Example SWRP Submitted Project

Phase I of Gage Basin Restoration Project

- Evaluates basin retention and infiltration capacities, evaluation of dry weather flow management, and evaluation of improvement needed to meet Multi-Benefit Trash Treatment System criteria.
- Also includes initial conceptual study of restoration alternatives for flood control and stormwater management and habitat lost after repeated wildfires of 2019, 2020 and 2021.





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SAWPA Feasibility Study Concepts

On July 27, 2023, SAWPA shared with the OWOW Steering Committee two feasibility study concepts which were submitted to the Riverside County SWRP on August 3, 2023:

- 1. Distributed Stormwater Capture Feasibility Study
- 2. Drywell Pilot Assessment



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Distributed Stormwater Capture Study Concept

- Purpose is to identify general locations where distributed recharge of stormwater (for water supply benefit) is feasible
 - •Water supply enhancement is feasible in zones with minimal water quality issues and maximum benefit for supply



Total Dissolved Solids Concentrations Based on Volume Weighted Average (1999-2018)

P:\projects\lan\WatershedIndicators\HighQualityWater\HighQualityWater.aprx LOInd3SalinityMaint SW-2972



Information To Be Used to Identify Locations

- Existing studies.
- Ambient Water Quality Re-computations and Groundwater Sustainability Agency data.
- Land use information from the county assessors and Southern California Association of Governments.







Drywell Pilot Assessment Concept

- Purpose is to understand conditions where recharge of stormwater (for water supply benefit) is feasible
 - Water supply enhancement is feasible (for example) when a drywell can recharge water table by permeating known barriers.



Layer with Water Table Used for Supply

SWRP Call for Projects Scores

- The two feasibility study concepts were submitted to Riverside County Flood Control and Water Conservation District on August 4, 2023.
- The District scored the concepts the highest out of the 24 projects/plans submitted.
- There may be some funding available if a resource bond is approved by the legislature/governor, and the general electorate on the November 2024 ballot.
- This Call for Projects is a way to gather projects that could be utilized for a joint Riverside County Flood-led grant proposal.

Questions?

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Thank You

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Propositions 84 and 1 Project Status Steering Committee Meeting

Steering Committee Meetin Item No. 4.C Marie Jauregui Project Manager November 16, 2023





Propositions 84 and 1 Project Highlights

Proposition 84 Program

Proposition 84 SARCCUP

Final Expansion

Raitt & Myrtle Park

Integrated Watershed Protection



Proposition 1 Round 1 Groundwater Replenishment System

Proposition 1 Round 1

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Integrated Watershed Protection Program





Integrated Watershed Protection Program

- Sunnymead Master Drainage Plan Line B Stages 3 and 4 (Heacock Channel)
 - Replace existing earthen channel to an ultimate 100year concrete channel
 - Floodplain Reduction
- Bautista Optimization Pond
 - Expand on existing recharge facilities – construct Six recharge ponds adjacent to Bautista Channel on 16-acre site
 - Stormwater Capture / Groundwater Recharge
- Beaumont Master Drainage Plan Line 16
 - Install approximately 7,800 feet of pipeline to connect recharge ponds owned by Beaumont Cherry Valley Water District





Santa Ana River Conservation & **Conjunctive Use Program**

(SARCCUP)



Santa Ana River Conservation & Conjunctive Use Program



*Target amounts for storage are dependent upon actual hydrology

Groundwater Banking

 Banking and conjunctive use ("put and take") facilities

Habitat Improvement

• Arundo removal and Santa Ana sucker fish habitat restoration

Water Conservation

- Water efficiency budget creation
- Water use efficient landscaping design and upgrades











Santa Ana River Conservation & Conjunctive **Use Program**

Sucker Habitat Locations



Arundo Removal Locations





Water Conservation

► Water Use Efficiency Budget Assistance (SAWPA):

- Assistance for dedicated landscape meter customers,
- Up to 10 retail agencies to participate in the program,
- 1,200 acre-feet of water to be saved over three years.

Smartscape Program (Waterkeeper/Coastkeeper):

- ► Landscape design,
- ► Care for low water use plants,
- Irrigation audits,
- Irrigation tune-ups, and
- ► Workshops.

Dedicated Landscape Meter Customer Example







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Groundwater Replenishment System

- Prop 1 Round 1 grant funded a component of GWRS – Advanced Water **Purification Facility**
 - Additional microfiltration treatment
 - Reverse osmosis membrane treatment
 - Ultraviolet light disinfection
 - Decarbonation tower
 - Pumps
 - Chemical tank
- *New water supply*: provide 26,000 to 31,000 AFY of new water supply
- *Water recycling*: recycle approximately 30 mgd of secondary-treated wastewater currently discharged to ocean
- Salt reduction: reduce salt load to groundwater basin by 10,000 tons per year















Raitt and Myrtle Park



- Renamed Ed Caruthers Park
- Construct approximately 3,300 SF of bioretention basins
 - Excavation
 - Backfill with gravel and engineered soil
 - Installation of mulch and landscaping
- Construct Stormchamber system
- Site development
 - Concrete perimeter wall
 - Drinking water fountains
 - Paving, hardscape, pathways
 - Waste receptacles
 - Utilities and lighting
 - Site drainage
- Groundwater Recharge: 5.3 AFY
- Stormwater Management
- Pollutant Load Reduction to Newport Bay

Questions?

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Thank You

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California Water Plan Update 2023 Public Review Draft

OWOW Steering Committee Item No. 5.A Ian Achimore Senior Watershed Manager November 16, 2023





Background on the Water Plan

- Every five years the California Department of Water Resources (DWR) releases an updated version of the California Water Plan (Plan).
- The Plan is a comprehensive compilation of water data that guides future water policy in the State.
- Required by Water Code Section 10005(a), it presents the status and trends of California's water-dependent natural resources; water supplies; and agricultural, urban, and environmental water demands for a range of plausible future scenarios.



STATE OF CALIFORNIA DEPARTMENT OF WATER RESOURCES DIVISION OF RESOURCES PLANNING

Bulletin No. 3

The

CALIFORNIA

WATER PLAN



GOODWIN J. KNIGHT

HARVEY O. BANKS Director of Water Resource

What The Plan Is Not

- Can't mandate actions or authorize spending for specific actions,
- Doesn't make project- or site-specific recommendations nor include environmental review as would be required by the California Environmental Quality Act, and
- Requires policy- and law-makers to take definitive steps to authorize the specific actions proposed in the Plan and appropriate funding needed for their implementation.

Those That Use the Water Plan

- **Elected officials**
- **Government** agencies
- Tribes
- Water and resource managers
- Businesses
- Academia
- General public



WATER PLAN

Public Review Draft

September 2023

Major Themes of the 2023 Plan

- **Climate resiliency**
- Equity
- Watershed Resiliency





Figure ES-3 Projected Climate Vulnerabilities Vary across California

Source of graphic: Draft California Watershed Resilience Assessment (California Department of Water Resources 2023 5 | Commission Meeting

Climate Resiliency

- Draft Plan states existing infrastructure not designed to manage climate challenges.
- Next Plan will include a more advance analysis of climate analysis at watershed scale.
- DWR will specifically evaluate the potential for adaptive operations for the State Water
 Project to accommodate increasing variability.

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Equity

- In 2022, Governor Newsom committed to creating a "California for all" by signing Executive Order N-16-22, directing State agencies to take critical actions and address equity in all strategic plans and updates."
- The draft Plan recommends that the State and local entities should build upon and expand models for community involvement, including meeting facilitation, language access services, and financial compensation for participation.





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Watershed Resiliency

- Watershed Networks are envisioned as "built around commitments to inclusive governance and decision-making, cutting edge climate science, and planning at appropriate watershed scales."
- Watershed networks provide all water-related sectors a seat at the table to collaborate on understanding climate vulnerabilities and system function, formulating multi-benefit adaptation and management strategies, and tracking watershed outcomes for transparency and accountability" (draft Plan page 5-11)






The DWR Definition of Watershed Networks

These networks "need to represent a broader crosssection of local voices and perspectives, contributing to water plans and projects that are more naturally integrated across such sectors as stormwater, sanitation, recycling, and groundwater management. For example, Tribal government representation on decision-making bodies facilitates the incorporation of indigenous knowledge and practices of holistic watershed management." (page ES-14 of the draft Plan)



Funding Watershed Networks

- The Budget Act of 2021 and 2022 provided funding for DWR to begin implementing elements of a new Watershed **Resilience Program.**
- The budget authorized \$161 million over four years for watershed climate resilience to be provided as grants for drought resilience and identification and assessment of climate risks on a watershed basis.
- DWR is currently seeking to pilot the program by funding several pilot watershed networks to conduct this type of planning. The pilots will then inform the future State-wide grant program.



SAWPA Comment Letter

- Submitted October 16, 2023.
- Highlights several items:
 - No mention of per- and polyfluoroalkyl substances (PFAS) and emerging constituents such as microplastics in the draft Plan,
 - Text needed regarding flood water as a source of water supply and how the State is investing in stormwater capture. Text needed that describes how watershed resilience will be accomplished via a driving/convening group, such as IRWM
 - administrators.





- Final version of the Plan to be released by "the end of the year."
- DWR staff have recently stated that pilot watersheds will be announced after final Plan is released, and
- SAWPA to meet with DWR management staff who wrote the Plan's section on equity on November 20, 2023.



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Questions?

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Thank You

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Grant Funded Project HighlightsSteering Committee Meeting

teering Committee Meeti Item No. 5.B Marie Jauregui Project Manager November 16, 2023





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Watershed-Wide Basin Monitoring Program Task Force Update

OWOW Steering Committee Meeting Item No. 5.C Ian Achimore Senior Watershed Manager November 16, 2023







SAWPA and Task Forces

SAWPA administers several task forces which generally have the following traits:

- SAWPA manages the contracts with task force consultants,
- Task Force has as an annual budget which the members contributes to,
- Task Force has a focus on regulatory compliance,
- Task Force has water agency members*,
- Task Force has a regulatory agency partner, and
- Task Force meets on a regular frequency, such as monthly or quarterly.

*Usually flood control districts, retail water agencies and/or wholesale water agencies.



Background on Regional Board & Basin Plans

- Each of the nine regional boards adopt a Basin Plan, which recognizes regional differences in existing water quality, and the beneficial uses of ground and surface waters.
 - The Basin Plan establishes water quality standards for the ground and surface waters of the region.
- The Regional Board also regulates waste discharges to minimize and control their effects on the quality of the region's ground and surface water.
 - Discharge permits are issued under several programs and authorities.



Santa Ana Basin Plan History

- The 1971 Interim Water Quality Control Plan set water quality objectives for the Santa Ana River, specifically at Prado Dam.
- Also in the early 1970s, the Regional Board was investigating the salt balance in the upper watershed.
- The 1975 Basin Plan outlined a specific water quality management scheme designed to improve groundwater quality in the upper watershed.
- During public hearings to consider adoption of the 1995 Basin Plan, several water agencies commented that the salt and nutrient-related groundwater objectives should be reviewed, considering the estimated cost of compliance (several billion dollars).



How the Task Force Started

- From 1995 to 2003, local water agencies funded watershed-wide studies to review the salt and nutrient-related water quality objectives in the 1995 Basin Plan.
- Their work led to a Basin Plan Amendment in 2004.
- As part of the 2004 amendment, water quality objectives were updated, and new monitoring tasks were added.
 - The individual agencies (which became the Basin Monitoring Task Force) were identified as responsible for certain monitoring-related tasks.



Why the Task Force Started

- Because new monitoring-related tasks were included in the 2004 Basin Plan Amendment, and Task Force members were named as responsible for some of these tasks.
- And more broadly to -
 - Assist individual dischargers (i.e. task force agencies with treatment plants and water recycling projects) with their regulatory permit requirements*.
 - Assist the Regional Board with watershed-wide collaboration and water quality reporting.

*Specifically, their water quality regulatory requirements for two pollutants – salt and nutrients.





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Major Monitoring Related Tasks

Deliverable/Task	Description/Purpose	Timeline for Completion
Ambient Water Quality Update	Analysis of salt* and nutrients** in Santa Ana River Watershed's 35 groundwater management zones (over 4,000 wells).	Performed every three years (going forward it will be done every five years).
Annual Report of SAR Water Quality	Preparation of Santa Ana River surface water quality report.	Performed annually and submitted by August 1.
Wasteload Allocation Model	Development of a surface discharge allocation to confirm compliance of surface water discharges with ground water quality regulatory requirements.	Performed every ten years.

*Salt is more specifically regulated as the broader pollutant category of total dissolved solids (TDS). **Nutrients are regulated as Total Inorganic Nitrogen (TIN).

Current Task Force Members

Beaumont Cherry Valley Water District*	Elsinore Valley Municipal Water D
Chino Basin Watermaster	Inland Empire Utilities Agency
City of Banning*	Irvine Ranch Water District
City of Beaumont	Jurupa Community Services Distri
City of Corona	Orange County Water District
City of Redlands	San Bernardino Valley Municipal
City of Rialto	San Gorgonio Pass Water Agency
City of Riverside	Temescal Valley Water District
Colton/San Bernardino Regional Tertiary Treatment and Wastewater Reclamation	Western Riverside Co Regional W Authority/Western Municipal Wat
Eastern Municipal Water District	Yucaipa Valley Water District

- Four new agencies added in 2015 (noted with *)
- Santa Ana Regional Board also a non-funding task force agency

District fict Water District*

*

astewater ter District





Major Accomplishments of the Task Force

- 1) Twelve Annual Reports of SAR Water Quality
- 2) Five Ambient Groundwater Updates
- 3) Two Wasteload Allocation Model Updates
- 4) Dozens of Discharge Permit Renewals
- 5) Four Basin Plan Amendments
- 6) Prevented 303(d) Listings
- 7) <u>ZERO</u> Litigation





Recent Task Force Activities

- Updates to monitoring works plans for surface and ground water,
- Analysis of potential groundwater monitoring gaps in the watershed,
- New monitoring sites managed by the Task Force, and
- Draft versions of regulatory documents:
 - Declaration of Conformance with 2019 Recycled Water Policy, and
 - 2024 Basin Plan Amendment.



Ground and Surface Water Work Plans

- Recommendations for Future Groundwater Work (Example):
 - Update the storage models for groundwater management zones (GMZs) where new or improved understanding is available.
 - Pilot the new groundwater monitoring calculation method prior to selection.
- Recommendations for Future Surface Water Work Plans (Example):
 - Develop and perform a "Special Study" to address data gaps in Santa Ana River Reach 3 to better quantify the magnitude and quality of rising groundwater and streambed recharge.





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Monitoring Across the Watershed

- The Task Force is dedicated to using the best science and relies on over 4,000 wells for TDS and Nitrogen groundwater monitoring data,
- The surface water monitoring involves 13 sites along reaches 2 through 5 for the Santa Ana River. Several agencies currently collect this data:
 - Basin Monitoring Task Force (Beginning in 2024)
 - Orange County Water District
 - Regional Board
 - U.S. Geological Survey





Potential Groundwater Data Gaps

- As a requirement of the 2019 Recycled Water Policy, the Task Force develop a data gap report that included the following:
- 1. Identified the potential data gaps in each of the 35 groundwater management zones (GMZ),
- 2. Defined the criteria to prioritize the timeframe for resolving potential data gaps, and
- 3. Recommended the agencies to resolve potential gaps in each GMZ.



Canyon GMZ (Example)
Next Steps for Task Force

- Provide Regional Board with draft Basin Plan amendment package for their April 2024 Board Meeting
 - Basin Plan amendment package will include text that modifies some of the calculations for surface water and groundwater monitoring per the recent work plans.
- Implement surface water and groundwater work plans,
- Address data gaps over the next five years, and
- Implement "Special Study" over the next several years.

Questions?

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Thank You

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