THE UPPER SANTA ANA RIVER WATERSHED INFRASTRUCTURE FINANCING AUTHORITY JPA

Public Utilities Department

Financial Performance and Budget Committee
October 14, 2022

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Upper Santa Ana River Habitat Conservation Plan (HCP)

From Conflict to Collaboration

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Santa Ana River Watershed Challenge

- ❑ How do we meet water supply needs while protecting the needs of a functional riverine ecosystem
- ❑ How do we work together to maximize the value of local water resources for all agencies

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Old Strategy: Litigation

Santa Ana Sucker, Little Fish at Center of Water Agencies' Suit Against Feds, Gets a Legal Assist

BY MATT COKER

TUESDAY, NOVEMBER 22 201

Lawsuit Appeals Expanded Critical Habitat for Santa Ana Sucker

Submitted by Matt Williams on Wed, 06/05/2013 - 1:01pm in Endangered and

Threatened Sucker Fish, Strangles Water Supplies

ENDANGERED SPECIES:

Calif. suit over fish habitat baits hook for Supreme Court

Jeremy P. Jacobs, E&E reporter

Greenwire: Thursday, October 22, 2015

Santa Ana Sucker Fish Critical Habitat Designation Challenged in Court

Southern California water agencies file lawsuit

August 24, 2011

Supreme Court keeps protections for Santa Ana sucker fish

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New Strategy: Partnership

- Accept Reality and Plan Accordingly
  - People need water and so do fish.
  - What's good for the River is good for people.
  - The watershed is interconnected with many stakeholders.
- Failure is not an option
  - Nobody benefits if we do nothing.
  - The cost is too great for doing nothing.
  - Working together is the only way forward.
- Inter-Agency Collaboration
  - Water Districts, NGOs, and Wildlife Agencies work together to find win-win solutions.

Inland Empire water agencies pool resources to save Santa Ana sucker

Brett Mills (L), Tawny Hoemke (C), both of Southwest Resource Management Association and Heather Dyer (R), water resources project manager for San Bernardino Valley Municipal Water District, look to remove non-native predators that are threatening the Santa Ana sucker fish, in the Rialto Channel portion of the Santa Ana River, Tuesday, March 3, 2015. The goal is to ...

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HCP: Purpose

Partnership and Collaboration

Regional, comprehensive program:

- ❑ Framework to protect, enhance, restore habitat for species
- ❑ Streamline permitting for projects

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HCP Permittees

- **HCP Team:**
  - **11 water agencies**
    - San Bernardino Valley Municipal Water District
    - San Bernardino Valley Water Conservation District
    - San Bernardino Municipal Water Department
    - Western Municipal Water District
    - East Valley Water District
    - West Valley Water District
    - Riverside Public Utilities
    - Inland Empire Utility Agency
    - City of Rialto
    - Orange County Water District
    - Metropolitan Water District of Southern California
  - **Southern California Edison**

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ESA Permitting for Covered Species

Plants
Slender-horned spineflower
Santa Ana River woolly-star

Fishes
Santa Ana sucker
Arroyo chub
Santa Ana speckled dace

Amphibians and Reptiles
Western spadefoot
Mountain yellow-legged frog
Western pond turtle
South coast garter snake
California glossy snake

Mammals
San Bernardino kangaroo rat
Los Angeles pocket mouse

Birds
Least Bell's vireo
Southwestern willow flycatcher
Yellow-breasted chat
Western yellow-billed cuckoo
Tricolored blackbird
Burrowing owl
Coastal California gnatcatcher
Cactus wren

Fully avoided species
Delhi Sands flower-loving fly
Arroyo toad

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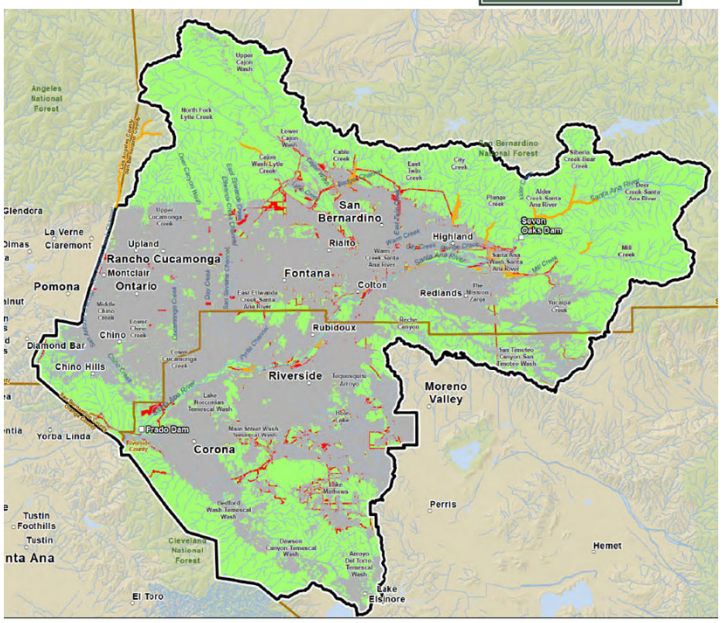
Covered Activities

- >100 Projects over 50 years
  - Phase 1: 0 - 5 years
  - Phase 2: 6 - 10 years
  - Phase 3: 11 - 15 years
  - Phase 4: 16+ years
- Types of Covered Activities:
  - Water Reuse
  - Groundwater Recharge
  - Wells and Water Conveyance Infrastructure
  - Solar Energy Development
  - Existing Facility Routine Operations and Maintenance
  - Habitat Improvement, Management, and Monitoring



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Conservation Strategy

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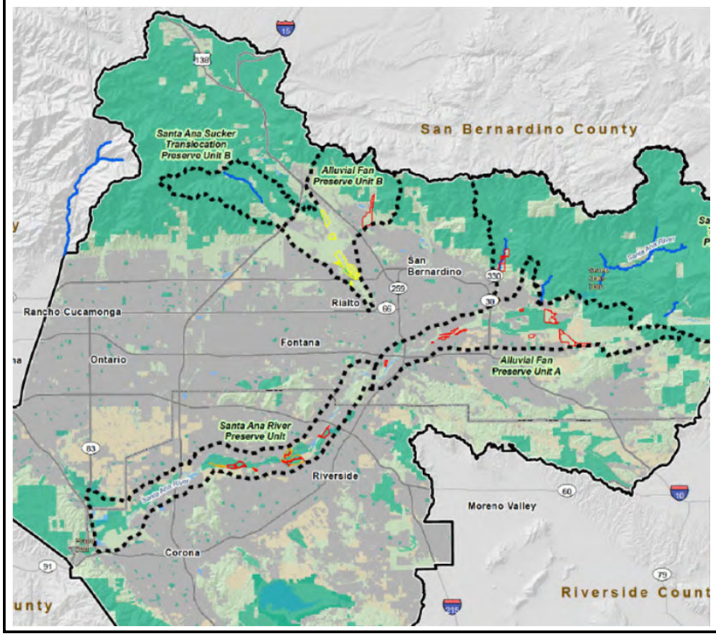
Conservation Strategy



Five Preserve Units:

Santa Ana River Preserve Unit (508 acres)

Alluvial Fan Units A & B: (1,335 acres)

Santa Ana Sucker Preserve Units A & B: (264 acres)

Total: ~2,100 acres

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Tributary Restoration Sites: Increase Habitat

Restoration Sites along Santa Ana River

- Restore riparian habitat
- Create stream habitat
- Conserve and manage
- Provide water supply

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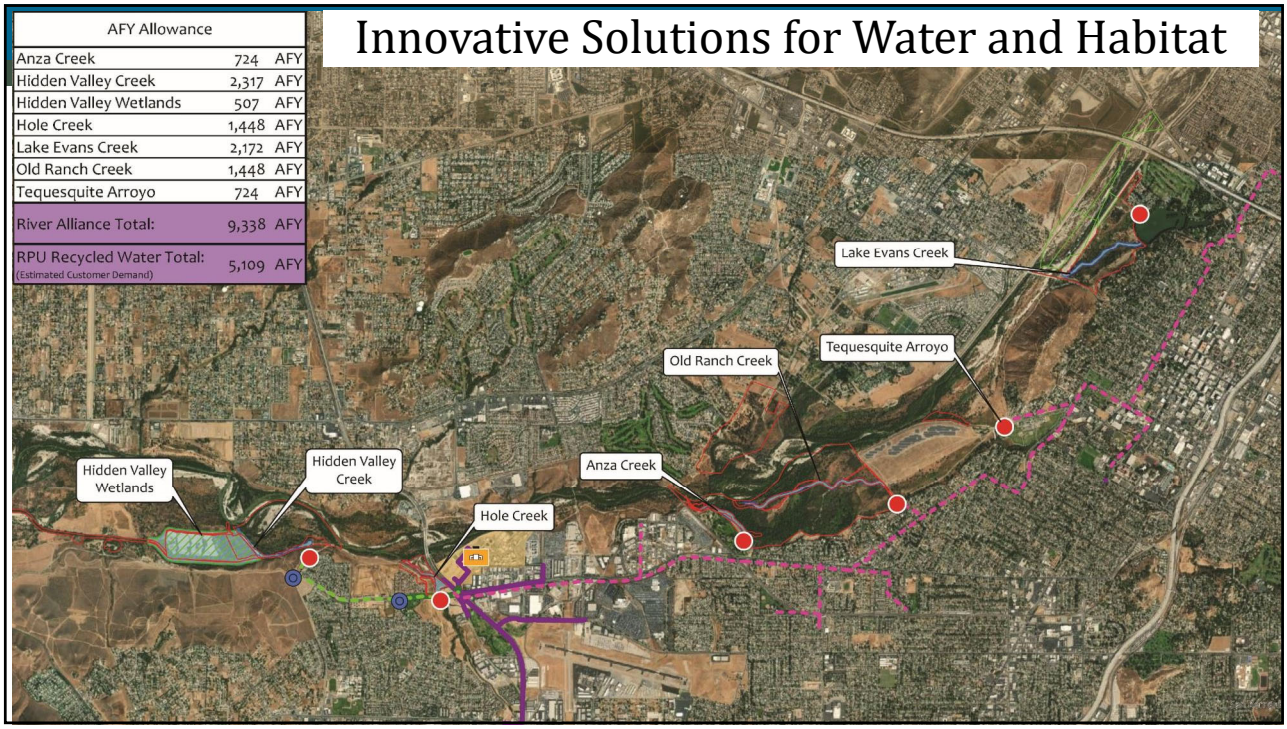
Innovative Solutions for Water and Habitat
AFY Allowance
Anza Creek 724 AFY
Hidden Valley Creek 2,317 AFY
Hidden Valley Wetlands 507 AFY
Hole Creek 1,448 AFY
Lake Evans Creek 2,172 AFY
Old Ranch Creek 1,448 AFY
Tequesquite Arroyo 724 AFY
River Alliance Total: 9,338 AFY
RPU Recycled Water Total: 5,109 AFY
(Estimated Customer Demand)
Lake Evans Creek
Tequesquite Arroyo
Old Ranch Creek
Anza Creek
Hidden Valley Wetlands
Hidden Valley Creek
Hole Creek

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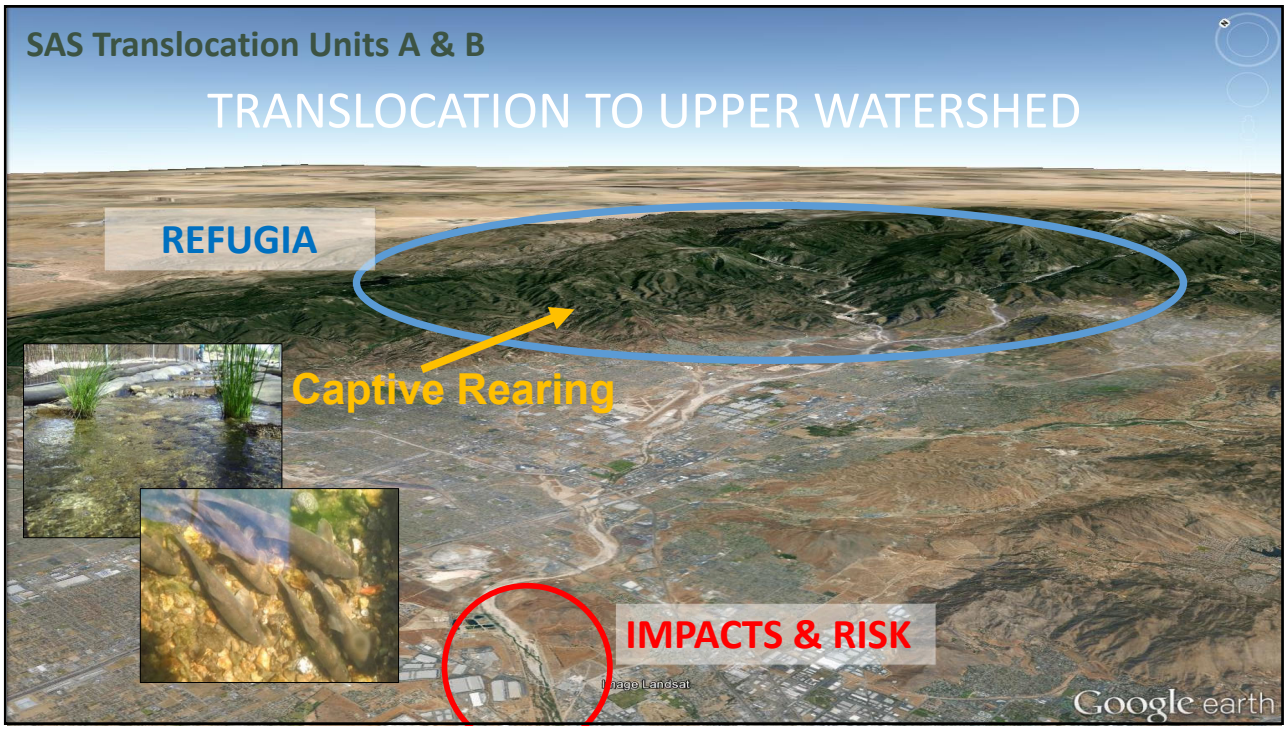
SAS Translocation Units A & B
TRANSLOCATION TO UPPER WATERSHED
REFUGIA
Captive Rearing
IMPACTS & RISK
Image Landsat
Google earth

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Santa Ana Sucker Preserve Units A & B

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Challenges & Opportunities

Multiple Benefits for Habitat, People, Property

- Creating/Improve habitat
- Provide permanent water supply to restoration sites
- Long-term management and monitoring
- Funded Ranger patrol of restoration sites
- Conservation easements and endowments

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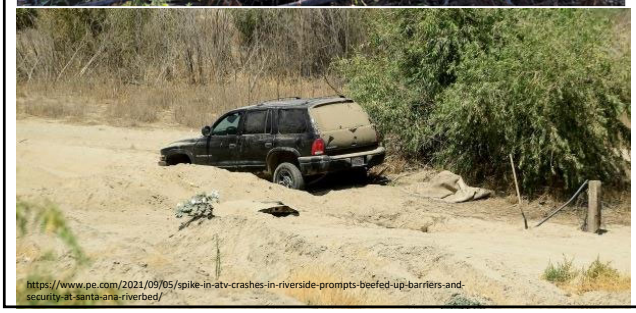
Challenges

https://www.pe.com/2017/12/21/riverside-fire-responds-to-reports-of-brush-fire-in-santa-ana-river-bottom/



https://www.pe.com/2021/09/05/spike-in-atv-crashes-in-riverside-prompts-beefed-up-barriers-and-security-at-santa-ana-riverbed/

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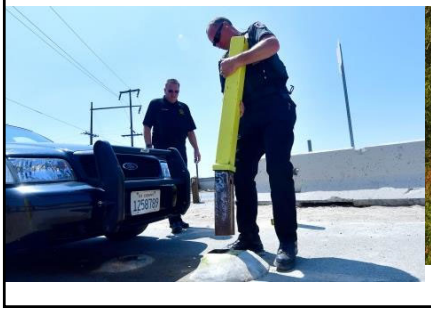
Opportunities - Partnerships

- Partnerships
- Incorporate fire fighting into planning process
- Site protection
- Strategic access control
- Ranger patrols
- Trash collection



https://www.pe.com/2020/02/06/firefighters-battle-4-acre-brush-fire-in-santa-ana-river-bottom-on-west-side-of-riverside/

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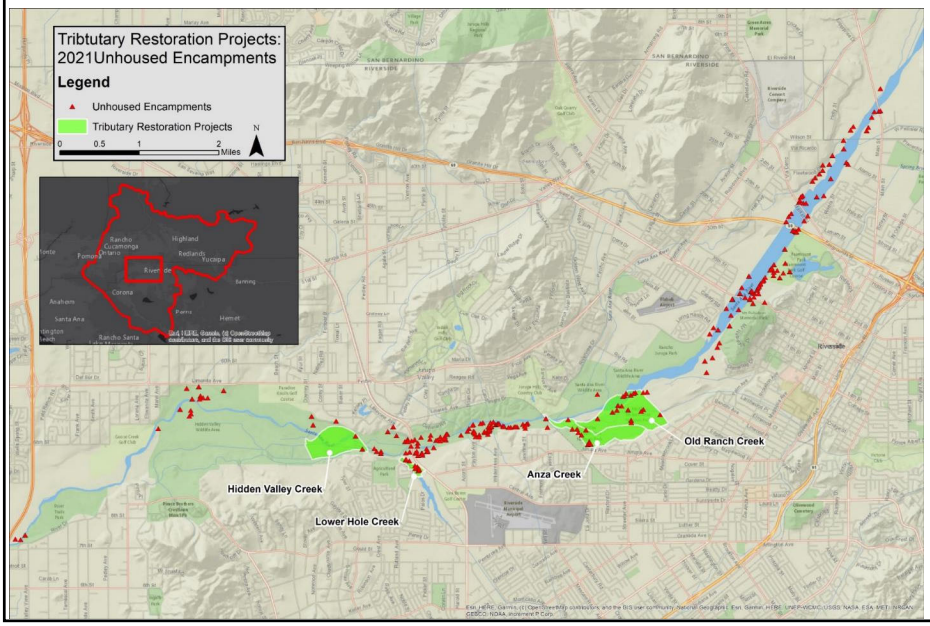
Ranger Patrols



Hidden Valley

- Encampments are few where patrols currently occur

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Opportunities – Responsible Public Use

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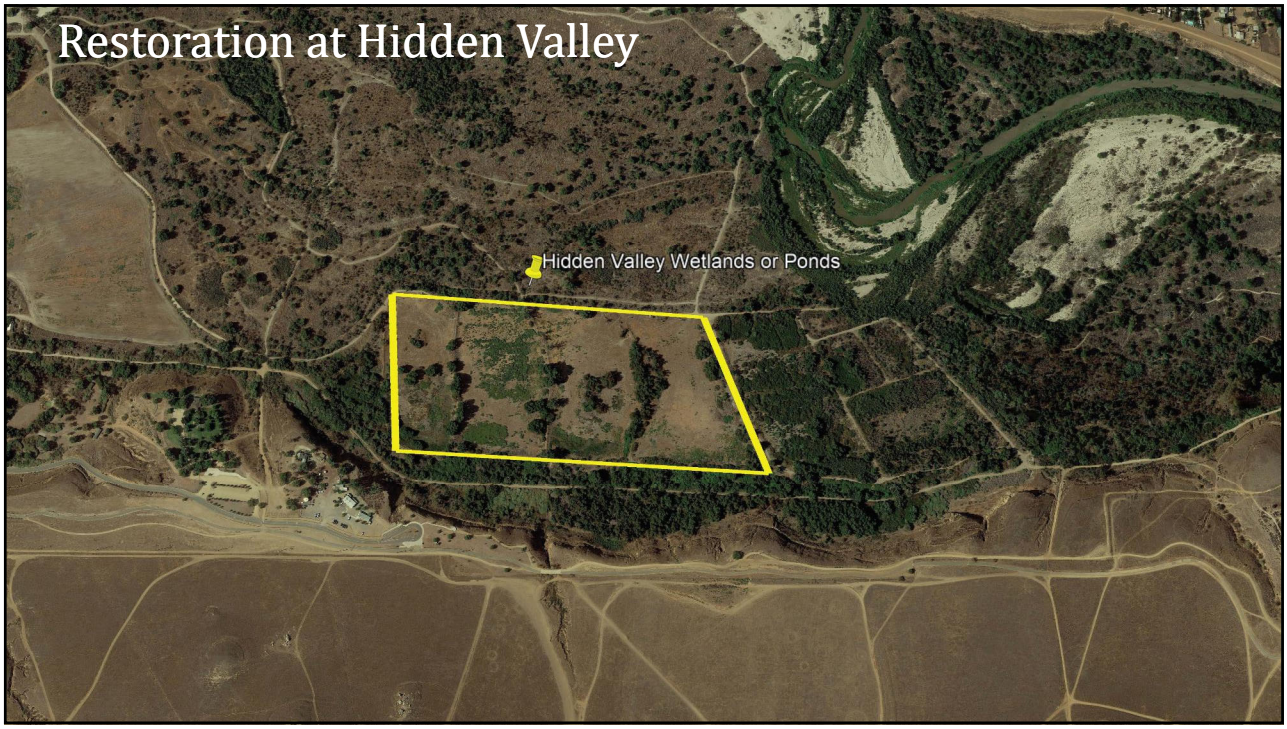
Restoration at Hidden Valley
Hidden Valley Wetlands or Ponds

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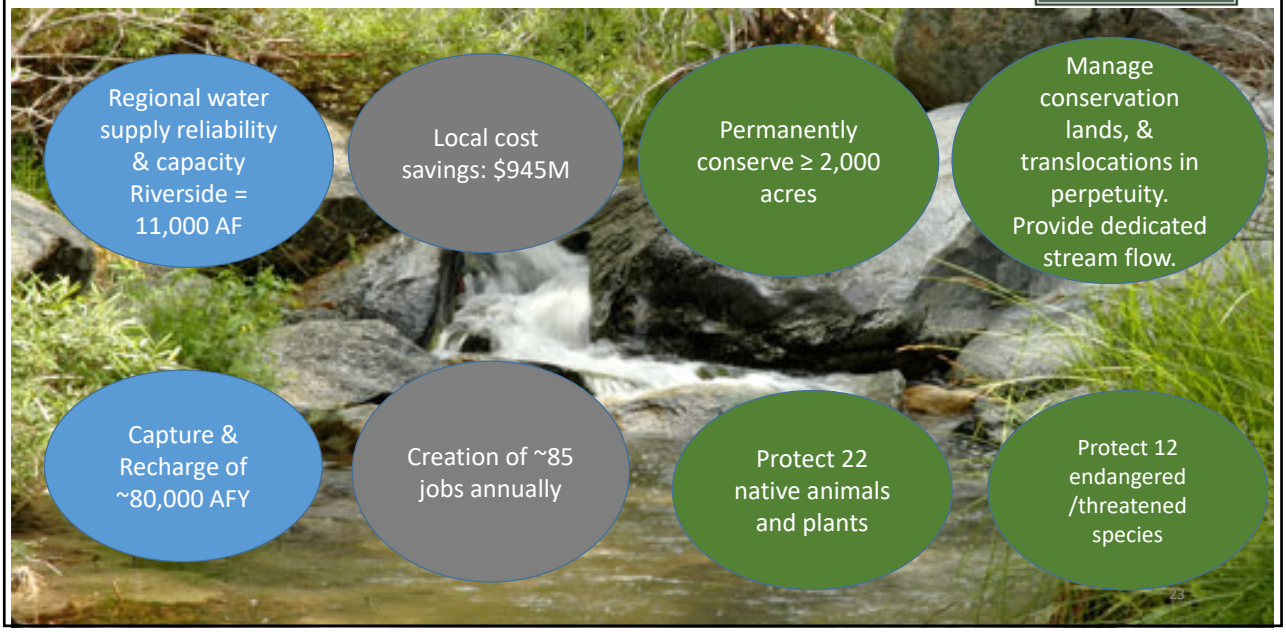
HCP Benefits

Upper Santa Ana River • HABITAT CONSERVATION PLAN •



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Upper Santa Ana River • HABITAT CONSERVATION PLAN •

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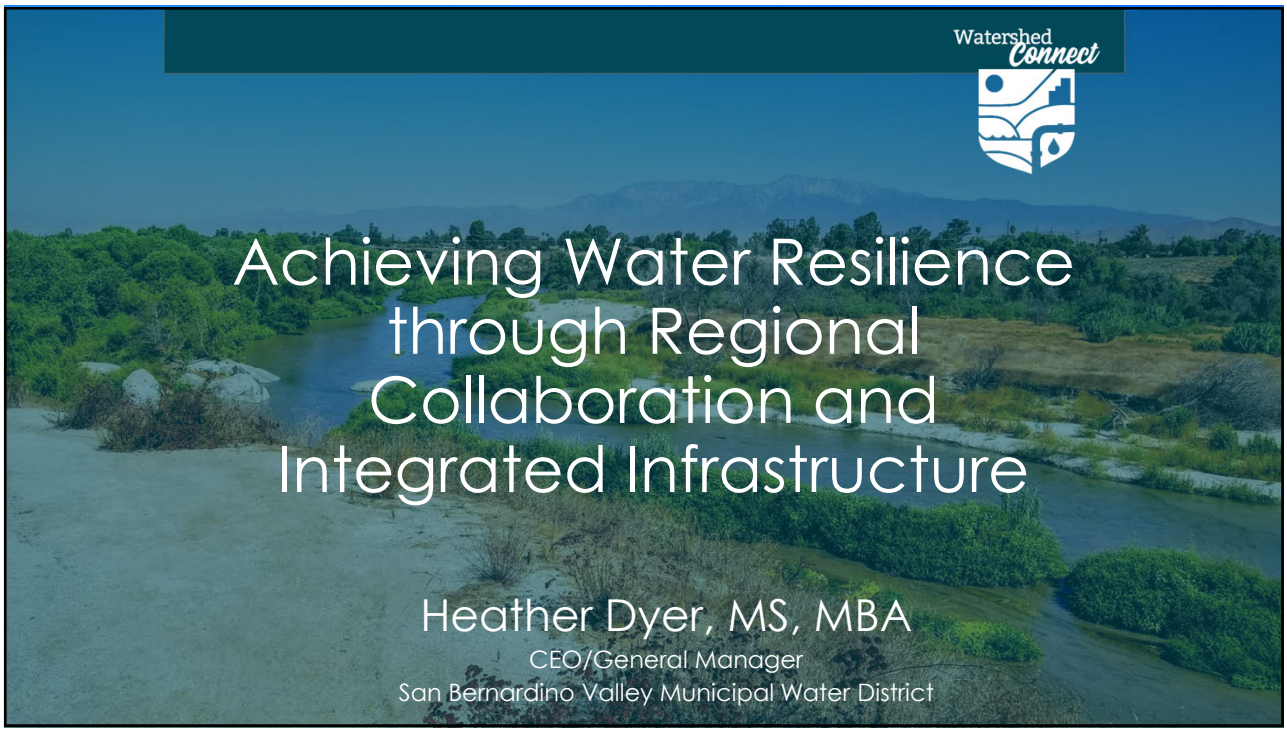
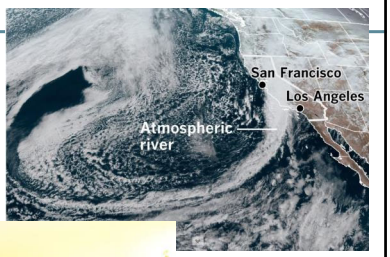
BACKGROUND

1. The Water Infrastructure Finance and Innovation Act of 2014 established the WIFIA Program.
2. Administered by the EPA for eligible water and wastewater infrastructure projects, offering low interest, favorable financing.
3. San Bernardino Valley Municipal Water District is leading an effort to make WIFIA financing available for the region.
4. RPU has an opportunity to partner with the region to be eligible for WIFIA financing for future water supply projects.



What we do…

- Ensure a reliable water supply to the region we serve, forever.
  - Resilience
  - Stewardship
  - Vision
  - Foresight
  - Strategy



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Proactive Water Resources Planning

- Stormwater capture – maximize local resources
- Recycled Water - drought proof supply
- Conjunctive Use Projects - shared infrastructure/shared resources
- Groundwater management - Proactive/adaptive

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Program Need

For many years, the San Bernardino Valley has been challenged by prolonged drought, increased wildfires, and climate uncertainty. In response, the region, which relies heavily on imported water, is investing in collaborative strategies to diversify its water supply portfolio, recharge its groundwater basins, restore critical habitat and secure a sustainable water future.

The Upper SAR Watershed, spanning over 850 square miles in San Bernardino and Riverside Counties in southern California, is a highly connected system of surface water, groundwater, and rich habitat that the region depends on for its local water supply.

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Program Description

WATERSHED CONNECT is a **regional infrastructure program**, a network of forward-looking projects designed to achieve water supply reliability, climate resilience, and long-term ecological health of the Upper Santa Ana River (Upper SAR) Watershed.

WATERSHED CONNECT is a **multiphase program** comprised of interconnected water capture, recharge, storage, treatment, and conveyance projects. This comprehensive package of infrastructure projects are expected to collectively maximize the use and reuse of local water resources, while attaining a healthy, functional river ecosystem that supports 22 federally and state-protected species

WATERSHED CONNECT innovative approach is expected to maximize program value and offers synergistic benefits to the watershed and its people.

WATERSHED CONNECT's purpose is **to achieve regional water supply security**, resilience to extended drought and the effects of climate change and holistically enhance the health of the Upper SAR Watershed.

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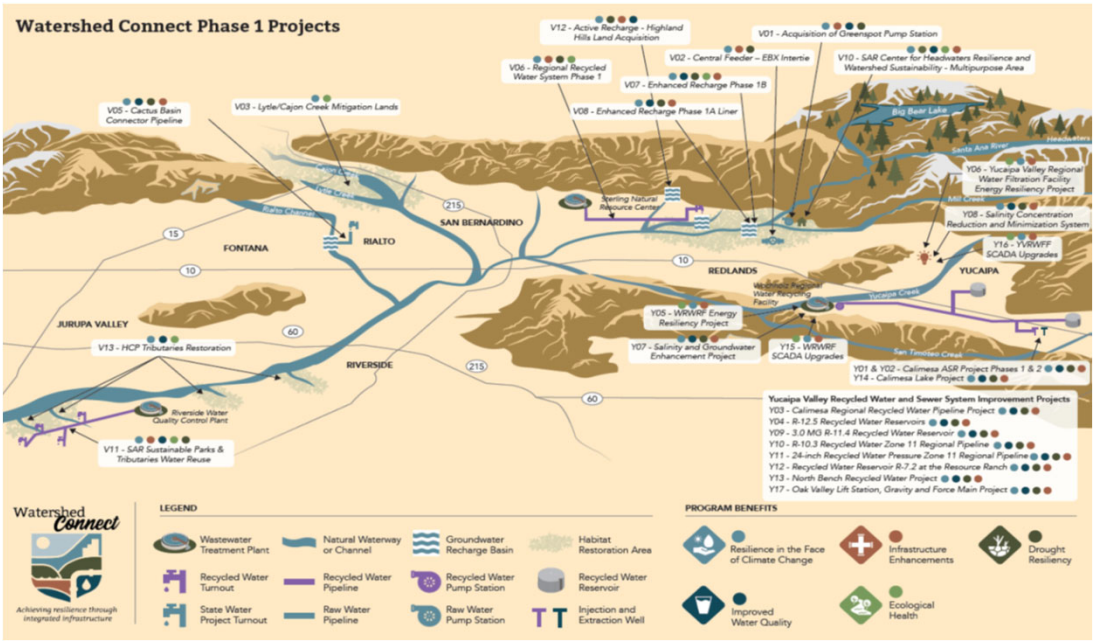

SYNERGY: *the interaction or cooperation of two or more organizations, elements, or other agents to produce a combined effect greater than the sum of their separate effects*

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Opportunity

Water Infrastructure Finance and Innovation Act (WIFIA) is an innovative, federal low-cost, and flexible infrastructure financing mechanism

Valley District and other local water agencies created the Financing JPA and the Watershed Connect Program (~$0.5 billion of interconnected projects) in 2021 to take advantage of WIFIA

Letter of Interest Submitted on June 23, 2021; Watershed Connect invited to submit a loan application in December 2021

Application submitted in late May for Phase I; regionally approved for WIFIA loan up to $231 million for capital program

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Phase 1 Projects

Project Name	Lead Agency	
Acquisition of Greenspot Pump Station	San Bernardino Valley Municipal Water District	$ 14,000,000
Central Feeder - EBX Intertie	San Bernardino Valley Municipal Water District	$ 2,327,000
Lytle Creek-Cajon Creek Mitigation Lands	San Bernardino Valley Municipal Water District	$ 11,590,000
Cactus Basin Connector Pipeline	San Bernardino Valley Municipal Water District	$ 2,211,000
Regional Recycled Water System Phase 1	San Bernardino Valley Municipal Water District	$ 53,073,000
Enhance Recharge Phase 1B	**San Bernardino Valley Municipal Water District**	**$ 65,583,000**
Enhance Recharge Phase 1A Liner	**San Bernardino Valley Municipal Water District**	**$ 970,000**
Headwaters Resiliency Multipurpose Area	San Bernardino Valley Municipal Water District	$ 32,500,000
SAR Sustainable Parks and Tributaries Water Reuse	**San Bernardino Valley Municipal Water District**	**$ 27,745,675**
Active Recharge - Highland Hills Land Acquisition	San Bernardino Valley Municipal Water District	$ 7,247,000
HCP Tributaries Restoration	San Bernardino Valley Municipal Water District	$ 14,294,000
Calimesa Aquifer Storage and Recovery Project Phase 1	Yucaipa Valley Water District	$ 12,114,925
Calimesa Aquifer Storage and Recovery Project Phase 2	Yucaipa Valley Water District	$ 4,337,448
Calimesa Regional Recycled Water Pipeline Project	Yucaipa Valley Water District	$ 5,665,383
R-12.5 Recycled Water Reservoirs	Yucaipa Valley Water District	$ 4,752,500
Wochholz Regional Water Recycling Facility Energy Resliency Project	Yucaipa Valley Water District	$ 29,967,497
Yucaipa Valley Regional Water Filtration Facility Energy Resiliency Project	Yucaipa Valley Water District	$ 16,298,861
Salinity and Groundwater Enhancement Project	Yucaipa Valley Water District	$ 34,149,320
Salinity Concentration Reduction and Minimization System	Yucaipa Valley Water District	$ 9,501,283
3.0 MG R-11.4 Recycled Water Reservoir	Yucaipa Valley Water District	$ 10,864,424
R-10.3 Recycled Water Booster to R-11.4 Recycled Water Reservoir	Yucaipa Valley Water District	$ 1,748,520
24-inch Recycled Water Pressure Zone 11 Regional Pipeline	Yucaipa Valley Water District	$ 9,370,560
Recycled Water Reservoir R-7.2 at the Resource Ranch	Yucaipa Valley Water District	$ 7,664,800
North Bench Recycled Water Project	Yucaipa Valley Water District	$ 21,982,020
Calimesa Lake Project	Yucaipa Valley Water District	$ 10,001,380
Wochholz Regional Water Recycling Facility - SCADA Upgrades	Yucaipa Valley Water District	$ 1,892,576
Yucaipa Valley Regional Water Filtration Facility - SCADA Upgrades	Yucaipa Valley Water District	$ 2,830,000
Oak Valley Sewer Lift Station, Force Mainlines and Gravity System Improvements	Yucaipa Valley Water District	$ 27,710,060

Bolded projects are expected to be funded with WIFIA Loan Proceeds.

Valley District Phase 1 Total	$ 231,540,675
YVWD Phase 1 Total	$ 210,851,557
Phase 1 Total	**$ 442,157,232**

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Valley District Phase 1 Projects

Project Name		Project Costs*
Acquisition of Greenspot Pump Station	SWP Reserves	$ 14,000,000
Central Feeder - EBX Intertie	SWP Reserves	$ 2,327,000
Lytle Creek-Cajon Creek Mitigation Lands	GF Reserves, Grants	$ 11,590,000
Cactus Basin Connector Pipeline	GF Reserves, Grants	$ 2,211,000
Regional Recycled Water System Phase 1	GF Reserves	$ 53,073,000
Enhance Recharge Phase 1B	**Project Partners, WIFIA Loan, Grants**	**$ 65,583,000**
Enhance Recharge Phase 1A Liner	**Project Partners, WIFIA Loan**	**$ 970,000**
Headwaters Resiliency Multipurpose Area	GF Reserves	$ 32,500,000
SAR Sustainable Parks and Tributaries Water Reuse	**Project Partner, HCP Partners, WIFIA Loan**	**$ 27,745,675**
Active Recharge - Highland Hills Land Acquisition	SBVWCD Active Recharge Transfer Fund	$ 7,247,000
HCP Tributaries Restoration	HCP Partners	$ 14,294,000
Valley District Phase 1 Total		**$ 231,540,675**

Bolded projects are expected to be funded with WIFIA Proceeds.

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WIFIA Program Benefits

- WIFIA loans offer a low, fixed interest rate
- WIFIA loans provide flexible financial terms
- Customized repayment schedules.
- Repayment period must be the earlier of 35 years after the date of substantial completion of the project, or the useful life of the project.
- Payments may be deferred up to 5 years after the project's substantial completion.
- Prepayable at any time ($1 million minimum).
- Federal combined funding can be up to 80% of total project costs.

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Upper Santa Ana River Watershed Infrastructure Financing Authority

The Upper Santa Ana River Watershed Infrastructure Financing Authority (USAR WIFA), a Joint Powers Authority comprised of water agencies, all of whom rely upon the highly connected tributaries, groundwater basins, and natural ecosystems of the Santa Ana River.

San Bernardino Valley Municipal Water District

Yucaipa Valley Water District

City of San Bernardino Water Dept.

Western Municipal Water District

San Bernardino Valley Water Conservation District

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Joint Powers Agreement

- Agreement was entered into for purposes of assisting in the financing and potential refinancing of projects of the Members
- **Members pay into JPA based on proportion of benefits received from program (loan)**
- **Installment Purchase Agreements ("IPA") authorized by the Authority and Members will set forth rights and obligations of the Members and the Authority with respect to debt and will ensure compliance with provisions of any legal document related to such IPA**
- **Members own and operate their facilities/projects**
- Any amendment to the JPA requires concurrence by all Members at that time
- The JPA is governed by one Director for each Member

Current USARWIFA Directors		
Paul Kielhold	Chair	Valley District
Lonni Granlund	Member	YVWD
Daniel Cozad	Member	SBVW Conservation District
Miguel Guerrero	Member	SB Municipal Utilities Department

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Benefits

Resiliency in the face of climate change: The collection of forward-looking recycled water, stormwater capture, groundwater storage, alternative energy, and ecosystem restoration projects are expected to improve water supply security. Investments in alternative water supplies, emergency storage, and system redundancies enhance the regions' resilience to climate threats.

Infrastructure Enhancements: Modernization of existing infrastructure combined with new conveyance systems are planned to create enhanced water resources. Upgrades, including pipeline protection initiatives and solar energy projects, are expected to reduce climate-related vulnerabilities and ensure reliable services during natural disasters.

Drought Resiliency: The program's ambitious stormwater capture, groundwater recharge, and water reuse projects are expected to position the region to sustain short and long-term droughts.

Improved Water Quality: Advanced treatment upgrades are expected to improve regional water quality by reducing the amount of salt, nutrients, and emerging contaminants introduced to surface waters and groundwater basins. Proposed stormwater capture and treatments projects are expected to produce high-quality water for blending with groundwater supplies high in total dissolved solids.

Ecological Health: The proposed habitat mitigation and restoration initiatives are expected to enhance the health of the Upper SAR Watershed, supporting the region's urban, environmental, recreational, and economic needs.

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PHASE 1

Watershed Connect

Achieving resilience through integrated infrastructure

Project Type	Number Projects	Benefits
Water Supply and Groundwater Recharge	10	35,760 acre-feet per year
Habitat Restoration	4	641 acres and 1 mile of stream
Recycled Water Distribution	7	6,600 connections
Energy Resilience	2	7 Megawatts
Infrastructure Resilience	5	Multiple
TOTAL	**28**	

- *Valley District is leading 11 projects*
- *Yucaipa Valley Water District is leading 17 projects*

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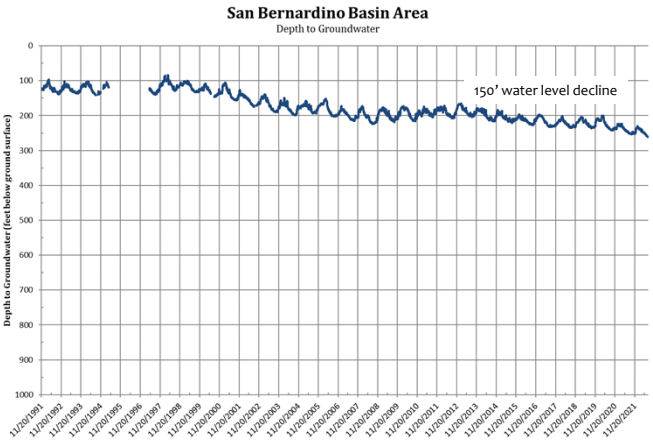
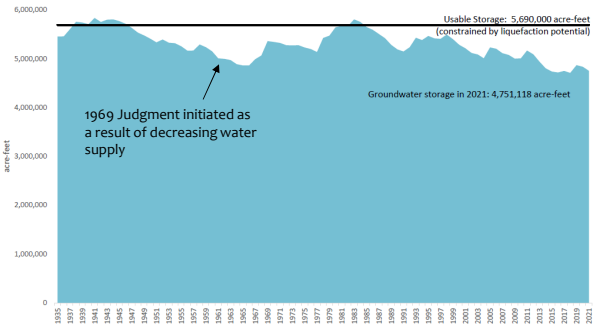
CURRENT SAN BERNARDINO BASIN CONDITIONS





Rainfall in the Upper Watershed

Period	Average inches per year of Rainfall	Comment
1933-1960	32.94	Period established the "safe yield" of the basin, the annual pumping volumes that can safely be produced from the basin
1930-2019	31.03	Long-term average
2000-2019	24.04	Drought period

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CURRENT SAN BERNARDINO BASIN CONDITIONS

1. Region is experiencing a long-term dry period resulting in decreased water levels.

2. As a result of lower water levels:
   a. Pumps are being lowered.
   b. Well production volumes are lower because they cannot pump at the same rate as they did when water levels were higher.
   c. Older wells are pumping much more air and in some cases need to be replaced with deeper wells.

3. Western-San Bernardino Watermaster is leading efforts to explore basin management options that would invest in efforts to stabilize and/or improve groundwater conditions to ensure the region's water supply remains resilient and sustainable into the future.

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STRATEGIC PLAN ALIGNMENT

Strategic Priority No. 4 – Environmental Stewardship

Goal 4.2 –Sustainably manage local water resources to maximize reliability and advance water reuse to ensure sage, reliable and affordable water to our community the item aligns with.

Strategic Priority No. 5 – High Performing Government

Goal 5.4 – Achieve and maintain financial health by addressing gaps between revenues and expenditure and aligning resources with strategic priorities to yield the greatest impact.

Cross-Cutting Threads

Community Trust
Fiscal Responsibility
Sustainability & Resiliency
Equity
Innovation

RECOMMENDATIONS

That the Financial Performance and Budget Committee recommends that the City Council:

1. Approve joining the Upper Santa Ana River Watershed Infrastructure Financing Authority through the execution of a Joint Exercise of Powers Agreement and authorize the City Manager, or designee, to execute any required documents;

2. Designate the Mayor or designee from the City Council to represent the City of Riverside on the governing board of the Upper Santa Ana River Watershed Infrastructure Financing Authority; and

3. Approve an expenditure not to exceed $270,000 to fund Riverside's portion of submitting a funding application and Water Infrastructure Finance and Innovation Act loan package to the U.S. Environmental Protection Agency for a regional suite of infrastructure projects.