



# THE UPPER SANTA ANA RIVER WATERSHED INFRASTRUCTURE FINANCING AUTHORITY JPA

## Public Utilities Department

**City Council**  
September 6, 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

Upper  
Santa Ana River  
• HABITAT CONSERVATION PLAN •



- ☐ 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

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

BY MATT COKER

TUESDAY, NOVEMBER 22 2011

**Threatened Sucker Fish,  
Strangles Water Supplies**

**ENDANGERED SPECIES:**

**Calif. suit over fish habitat baits hook for Supreme Court**  
Jeremy B. Jacobs, E&E reporter  
Greenwire, Thursday, October 22, 2015

**Lawsuit Appeals Expanded Critical Habitat  
for Santa Ana Sucker**  
Submitted by Matt Williams on Wed, 06/05/2013 - 1:01pm in Endangered and

**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

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- **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



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## HCP: Purpose

Upper  
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### 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



Photo: SB County Public Works



Photo: Cornell Lab of Ornithology



Photo: KRCB



Photo: San Diego Zoo

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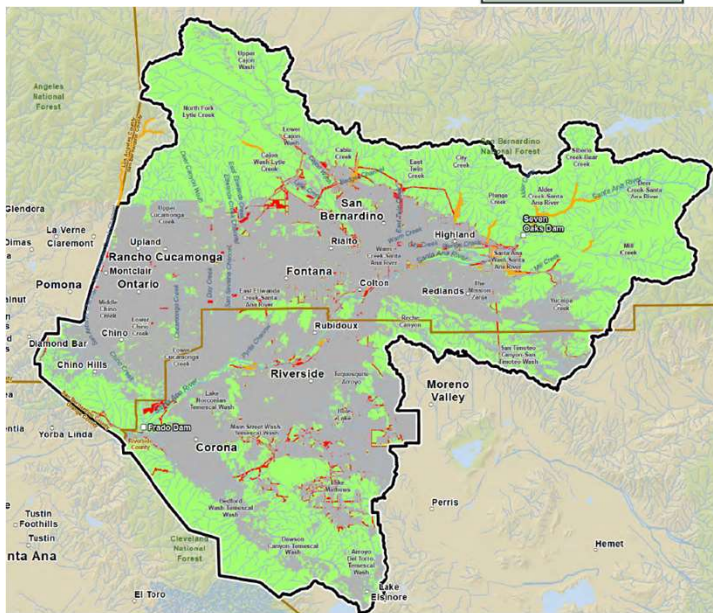
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## Covered Activities

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- >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

Upper  
Santa Ana River  
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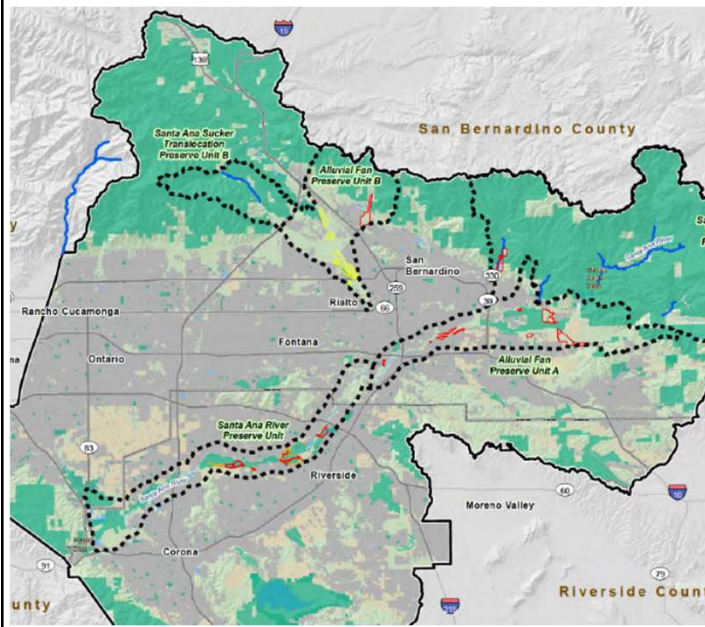


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## Conservation Strategy

Upper  
*Santa Ana River*  
• HABITAT CONSERVATION PLAN •



### Five Preserve Units:

Santa Ana River Preserve Unit (508 acres)

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

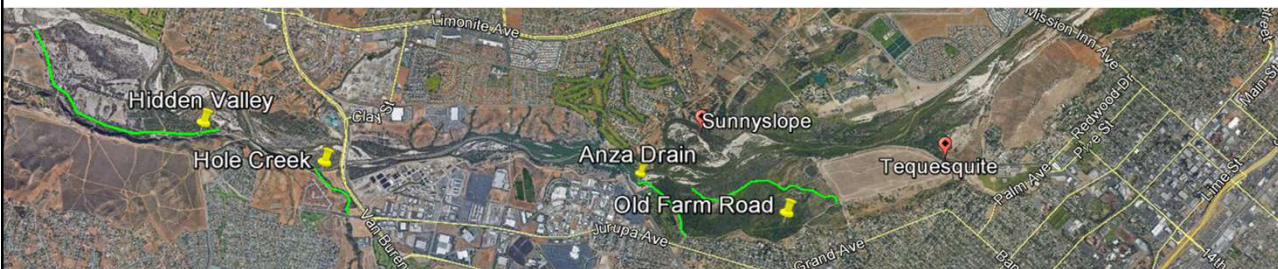
Santa Ana Sucker Preserve Units A & B: (264 acres)

**Total: ~2,100 acres**

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## Tributary Restoration Sites: Increase Habitat

Upper  
*Santa Ana River*  
• HABITAT CONSERVATION PLAN •



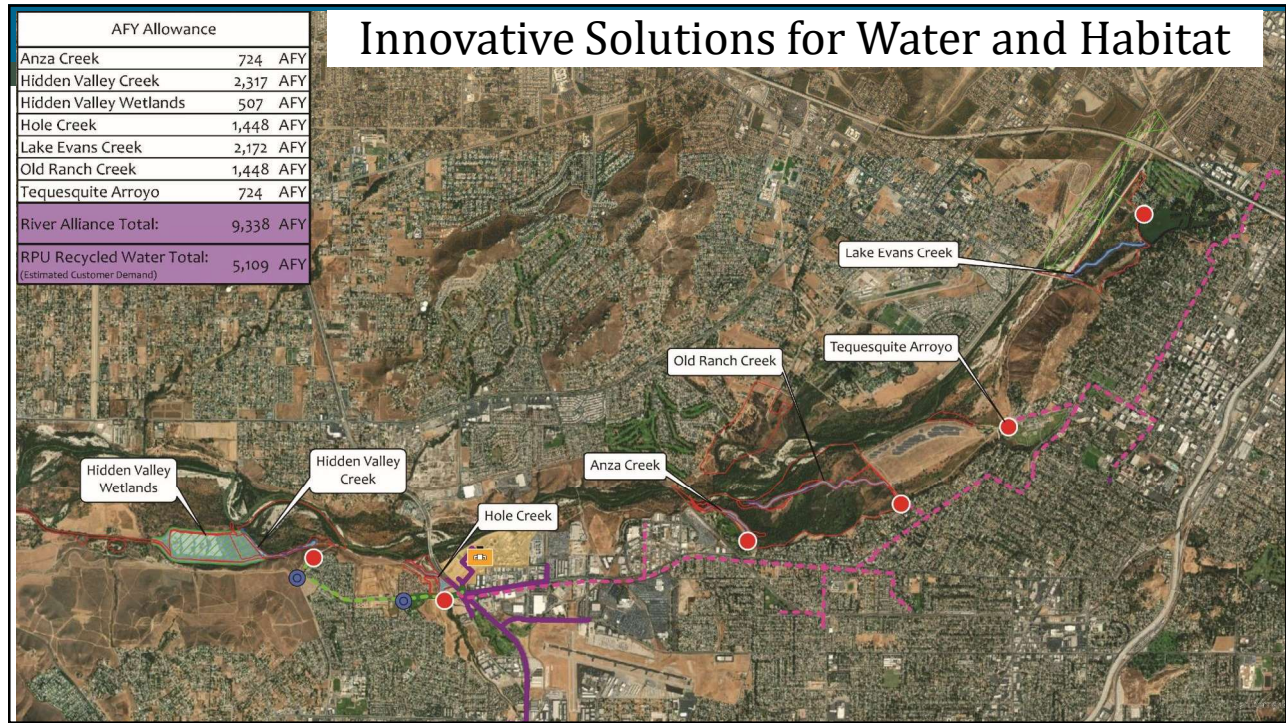
### Restoration Sites along Santa Ana River

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

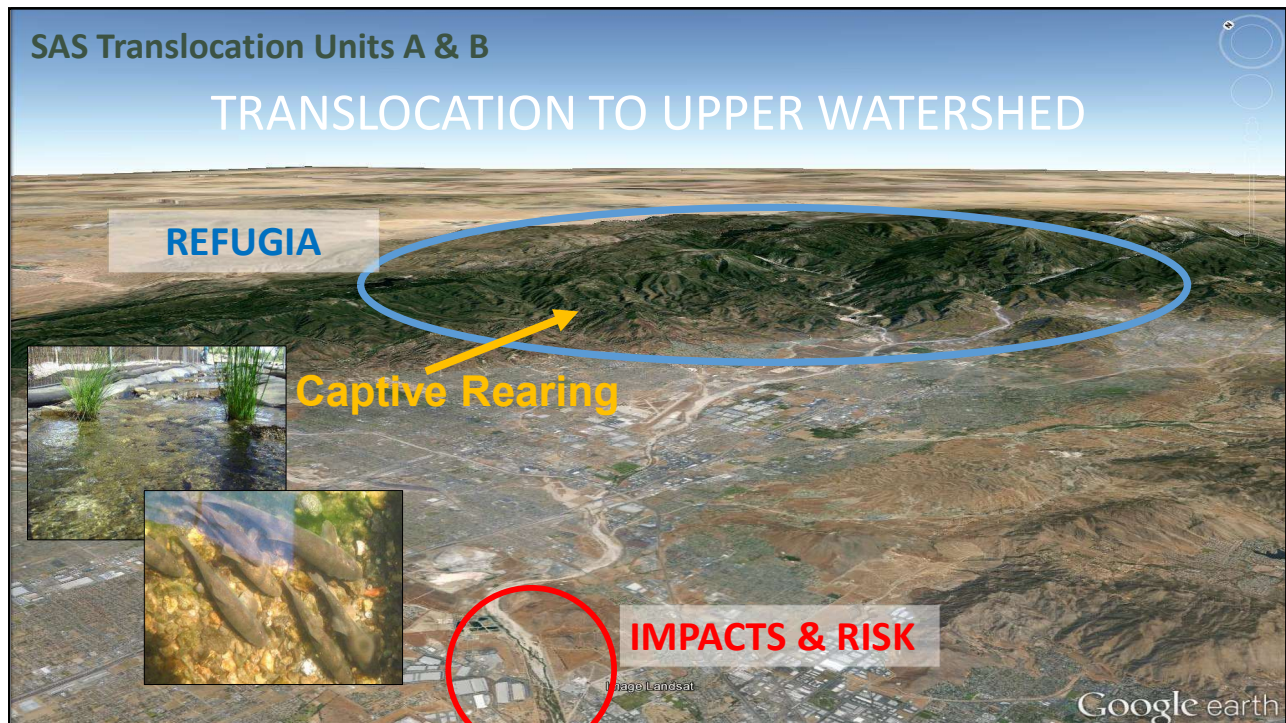


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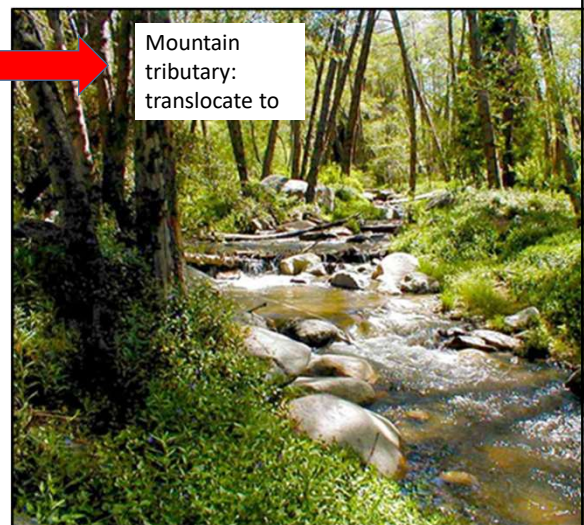
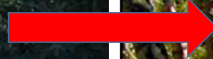


## Santa Ana Sucker Preserve Units A & B

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Santa Ana  
River  
mainstem:  
translocate  
from



Mountain  
tributary:  
translocate to

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## Challenges & Opportunities

Upper  
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### Multiple Benefits for Habitat, People, Property

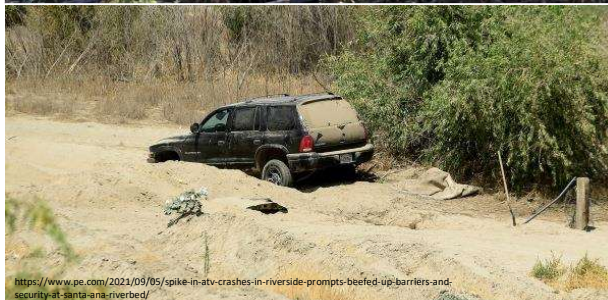
- Creating/Improve habitat
- Provide permanent water supply to restoration sites
- Long-term management and monitoring
- Funded Ranger patrol of restoration sites
- Conservation easements and endowments

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## Challenges

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## Opportunities - Partnerships

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Santa Ana River  
• HABITAT CONSERVATION PLAN •

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



RIVERSIDE HOUSING FIRST PLAN

OFFICE OF HOMELESS SOLUTIONS

March 13, 2018  
City Council and Housing Authority

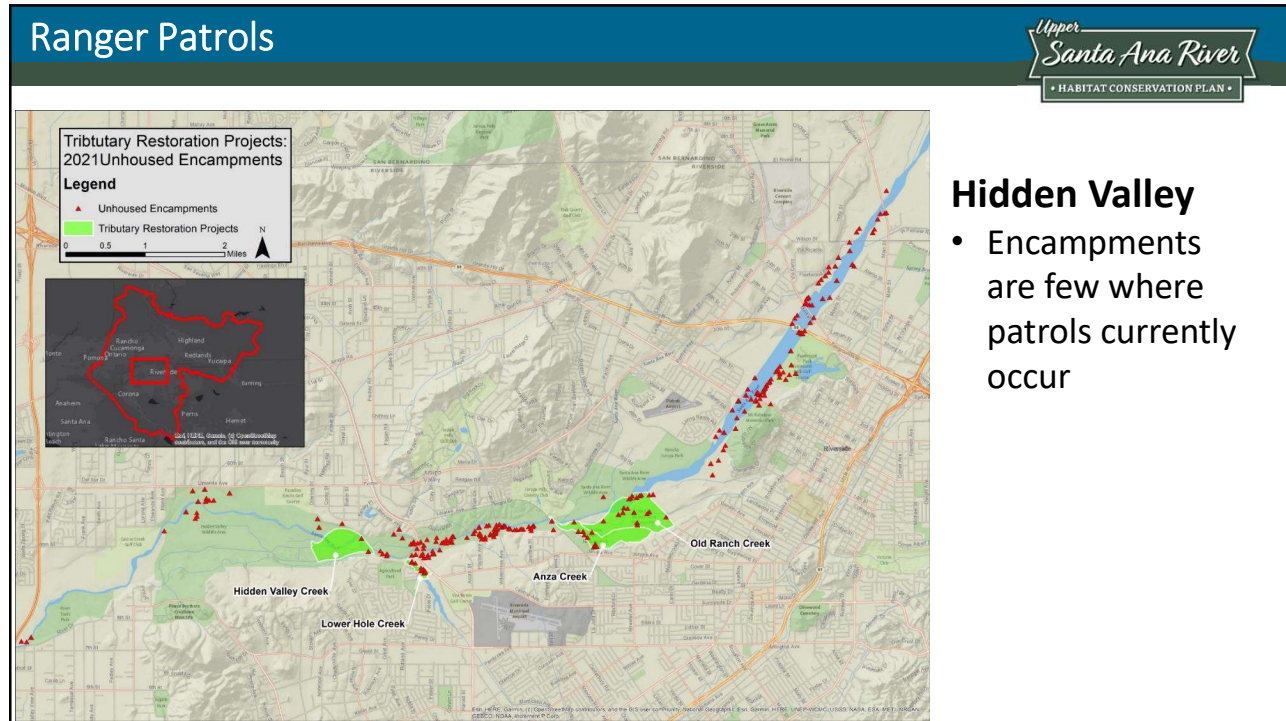
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<https://www.pe.com/2020/02/06/firefighters-battle-4-acre-brush-fire-in-santa-ana-river-bottom-on-west-side-of-riverside/>

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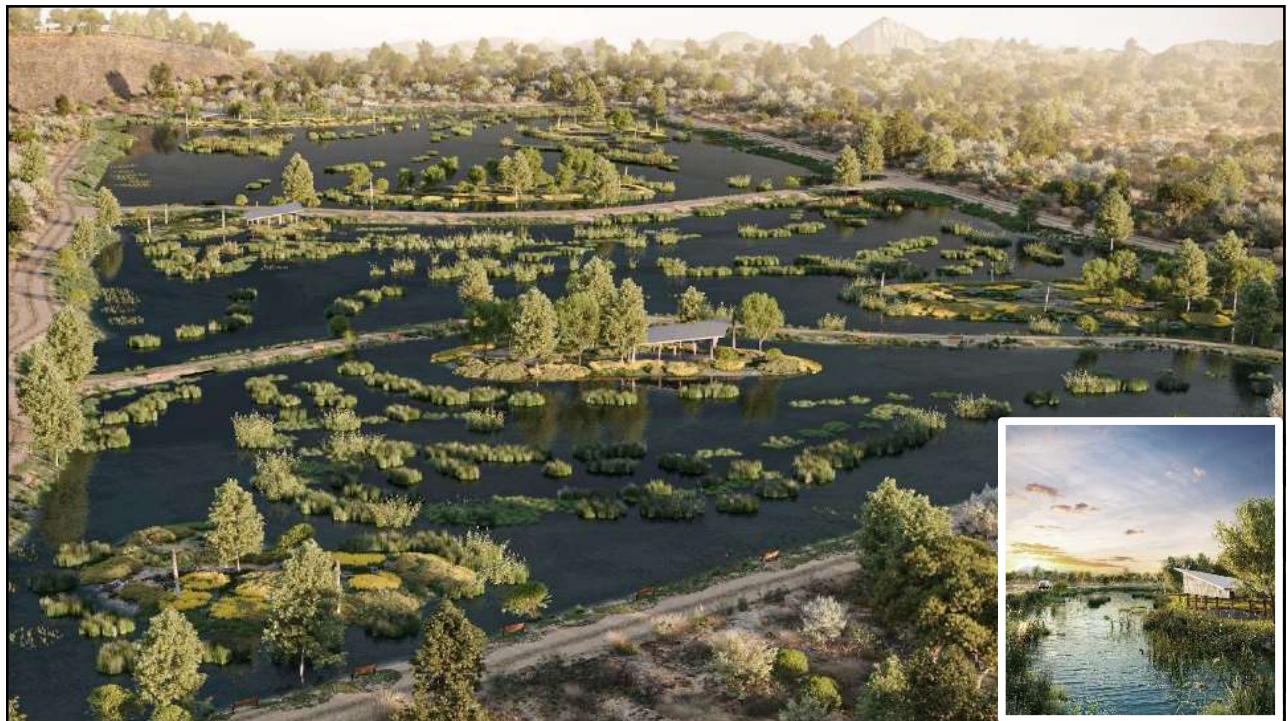


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# HCP Benefits

Regional water supply reliability & capacity  
Riverside = 11,000 AF

Local cost savings: \$945M

Permanently conserve ≥ 2,000 acres

Manage conservation lands, & translocations in perpetuity. Provide dedicated stream flow.

Capture & Recharge of ~80,000 AFY

Creation of ~85 jobs annually

Protect 22 native animals and plants

Protect 12 endangered /threatened species

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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.



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Achieving Water Resilience  
through Regional  
Collaboration and  
Integrated Infrastructure

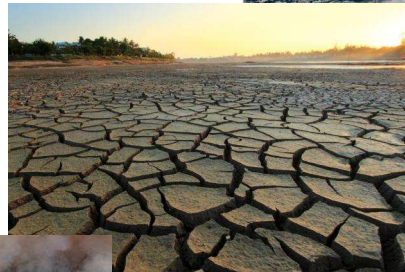
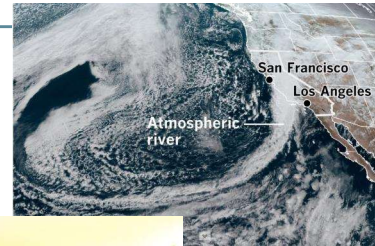
Heather Dyer, MS, MBA  
CEO/General Manager  
San Bernardino Valley Municipal Water District

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## What we do...

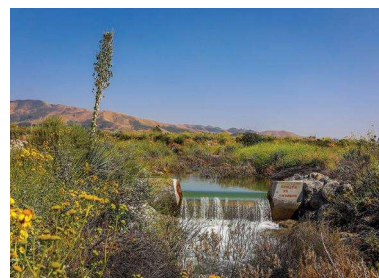
- Ensure a reliable water supply to the region we serve, forever.
  - Resilience
  - Stewardship
  - Vision
  - Foresight
  - Strategy



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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.

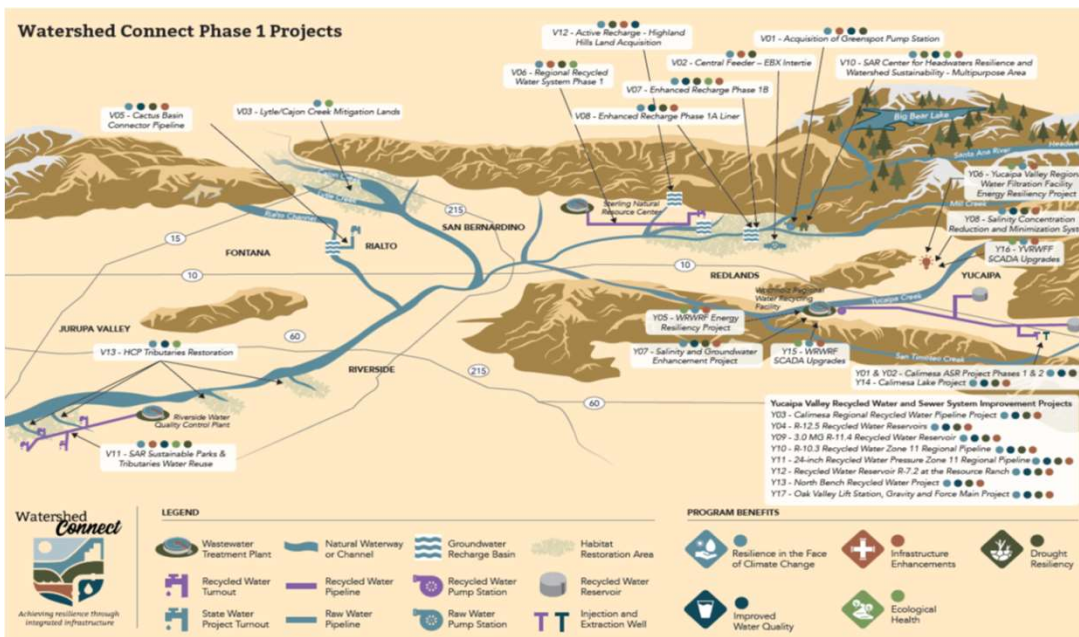
**WATERSHED CONNECT** is a **multiphase program** comprised of interconnected water capture, recharge, storage, treatment, and conveyance projects. This comprehensive package of infrastructure projects are expected to collectively maximize the use and reuse of local water resources, while attaining a 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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## 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
Lytile 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 Resiliency 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
<b>Phase 1 Total</b>	<b>\$ 442,157,232</b>

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## Valley District Phase 1 Projects

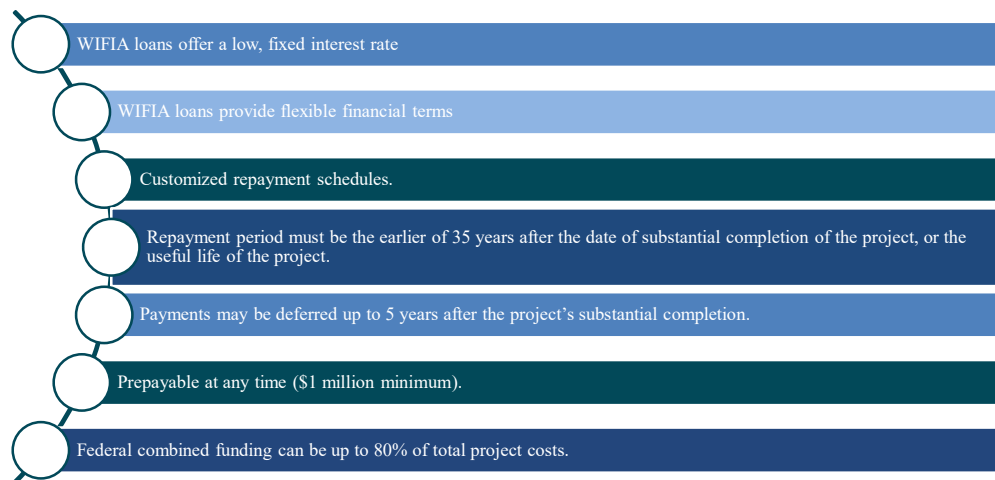
Project Name		Project Costs*
Acquisition of Greenspot Pump Station	SWP Reserves	\$ 14,000,000
Central Feeder - EBX Intertie	SWP Reserves	\$ 2,327,000
Lytle Creek-Cajon Creek Mitigation Lands	GF Reserves, Grants	\$ 11,590,000
Cactus Basin Connector Pipeline	GF Reserves, Grants	\$ 2,211,000
Regional Recycled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

Bolded projects are expected to be funded with WIFIA Proceeds.

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## WIFIA Program Benefits



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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.



Yucaipa Valley 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.



**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.



**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.



**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
<b>TOTAL</b>	<b>28</b>	

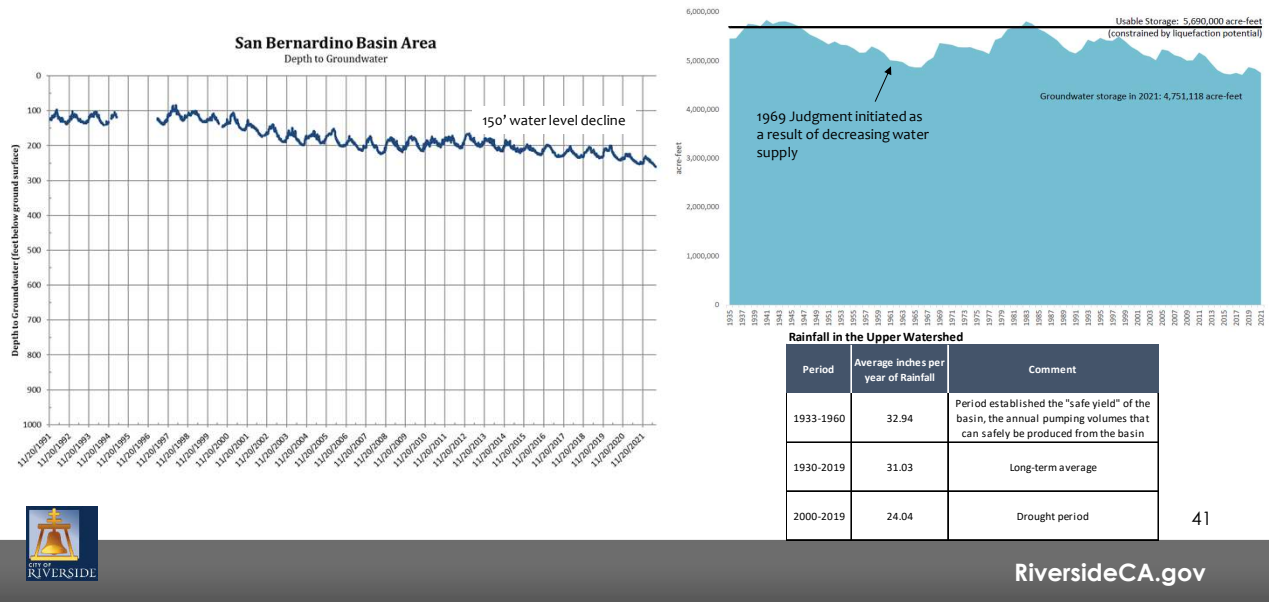
- Valley District is leading 11 projects*
- Yucaipa Valley Water District is leading 17 projects*

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## CURRENT SAN BERNARDINO BASIN CONDITIONS



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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



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## RECOMMENDATIONS

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 his designee, to execute any required documents;
2. Designate the Mayor or designee 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.



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