

Cachuma Project Water Rights Hearing

October 2003

Panel V

Presenter:

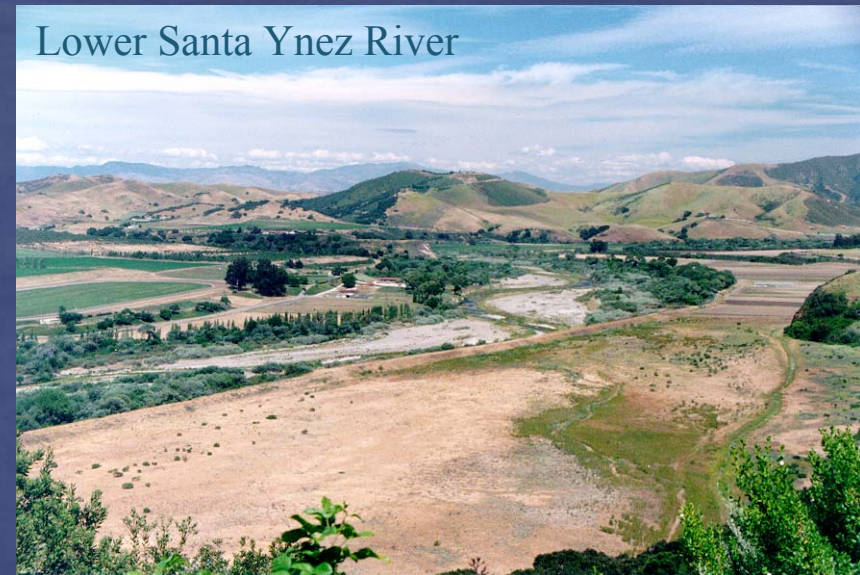
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Introduction

- Plan based on technical study and potential management actions
- Plan is designed to improve habitat conditions in Lower Santa Ynez River
- Plan is key step in the recovery of Southern California Steelhead

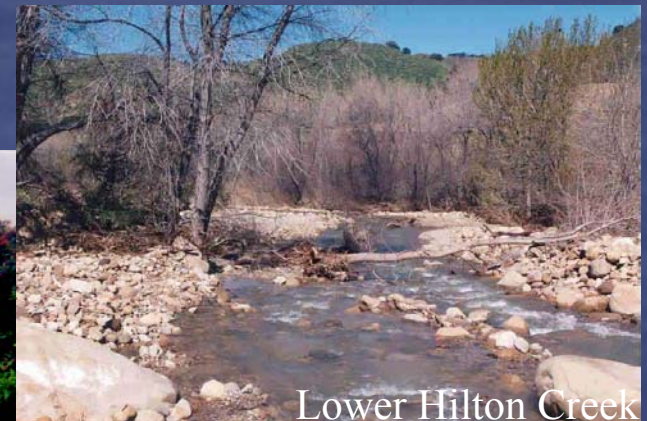


SYRTAC Alternative Development and Evaluation Process

- Fisheries MOU and Cooperative Studies (1993 to present)
- Fisheries Data Synthesis Report (1997)
- Management Alternatives Report (1998)
- Fish Management Plan (2000)



Lower San Miguelito Creek



Lower Hilton Creek

Target Species

- Federally Endangered:
 - Southern California Steelhead
 - Tidewater Goby
- Other Native Fish
 - Coastal Rainbow Trout
 - Pacific Lamprey
 - Threespine Stickleback
 - Prickly Sculpin
- Arroyo Chub
 - Non-native, CA Species of Special Concern



Hilton Creek

Fish Management Plan Objectives

- Identify, evaluate, and recommend potential management actions that will benefit fish and other public-trust resources in the Lower Santa Ynez River
- Management Priorities:
 - Improve conditions for native fishes, with emphasis on rainbow trout/steelhead
 - Avoid impacts to other species of special concern or habitat values



Overview of Recommended Actions

- Create New Habitat
- Improve Access to Habitat
- Improve & Protect Existing Habitat
- Increase Public Awareness
- Continuing Upper Basin Investigations



Creating new habitat for steelhead - the Hilton Creek Watering System is turned on.

Create New Habitat

- Target Flow Releases Downstream of Bradbury Dam (Mainstem and Hilton Creek)



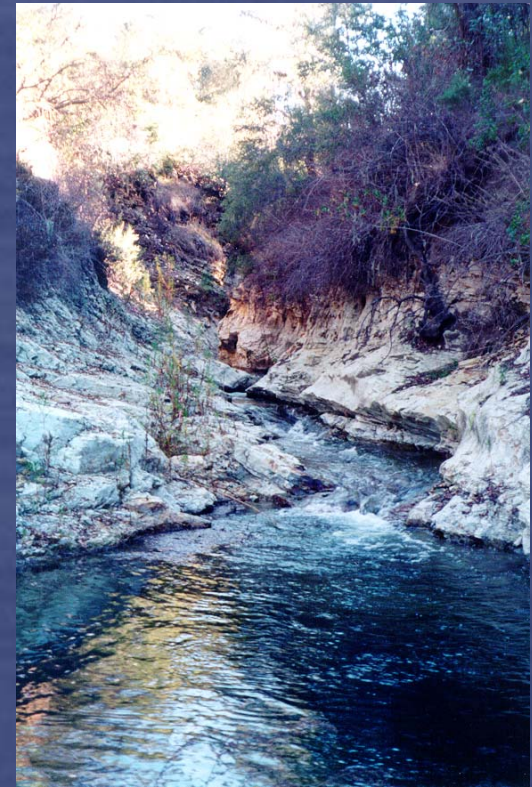
Santa Ynez River

Target Flows

Target Flow Triggers		Management Reach	Long-Term Target Flow	Percent of Time Flow Likely to be Met
Lake Cachuma Storage (AF)	Reservoir Spill (AF)			
> 120,000	Spill > 20,000	Bradbury Dam to State Highway 154 Bridge	10 cfs	38%
	Spill > 20,000 & 1 Year After	State Highway 154 Bridge to Alisal Road Bridge	1.5 cfs	75%
> 120,000	Spill < 20,000 or No Spill	Bradbury Dam to State Highway 154 Bridge	5 cfs	77 %
< 120,000		Bradbury Dam to State Highway 154 Bridge	2.5 cfs	98%
> 30,000		Lower Hilton Creek	2 cfs	98 %
Critical Drought Years				
< 30,000	No Spill	Stilling Basin and Long Pool	Periodic release: 30 AF per month	Occurred 3 times in 76 years

Create New Habitat

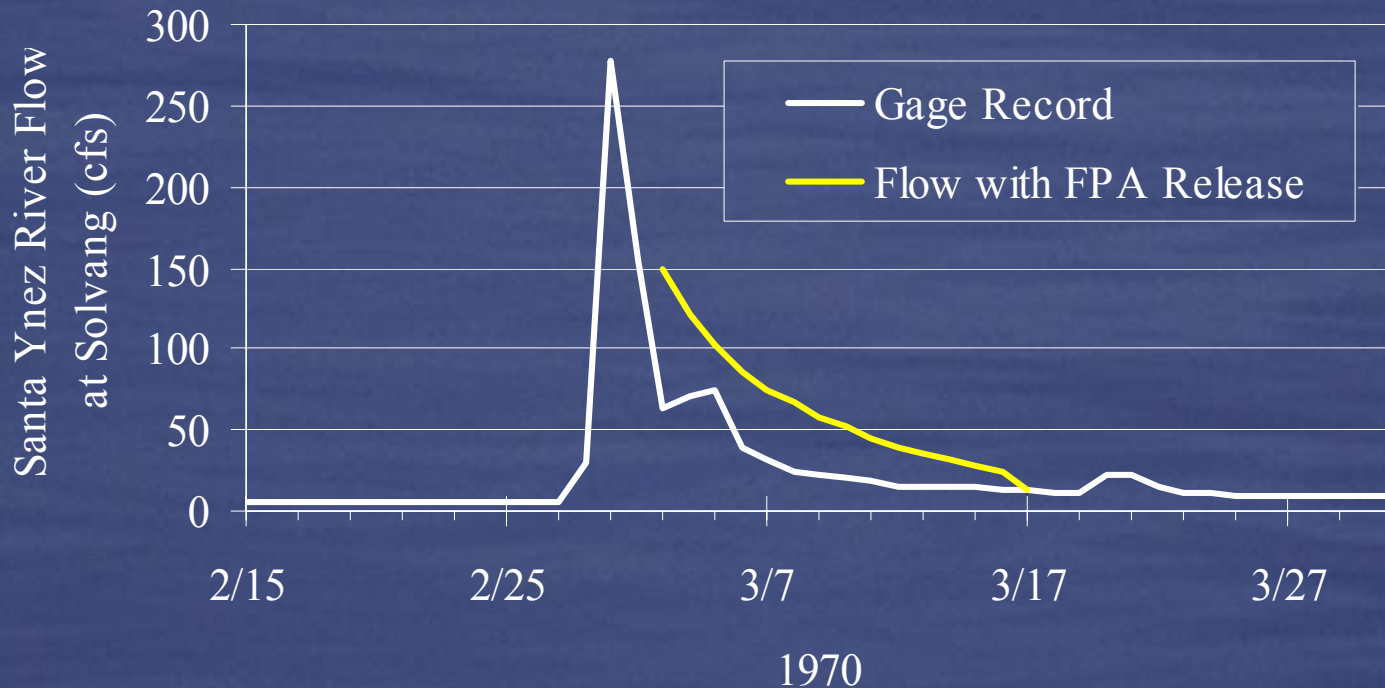
- Adaptive Management Account (500 AF)
- Modifications to Lower Hilton Creek



Hilton Creek - Before & After

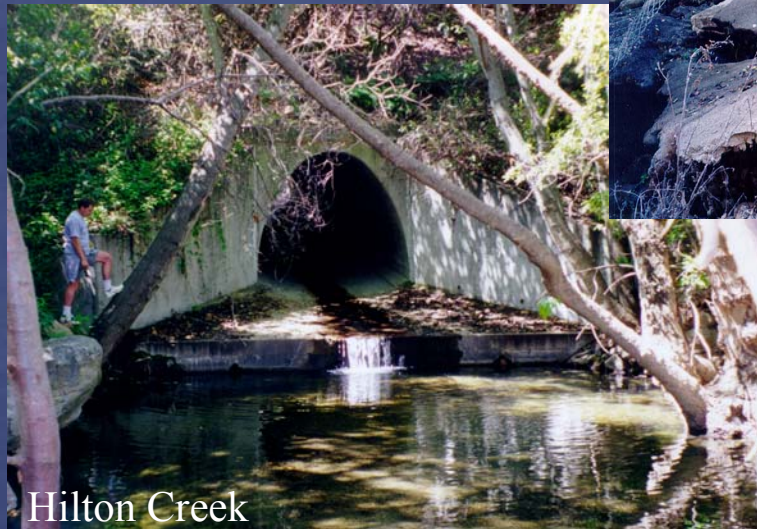
Improve Access to Habitat

- Fish Passage Releases
 - 3,200 acre-foot Fish Passage Account
 - Targeted to Declining Limb of Natural Storm Hydrographs



Improve Access to Habitat

- 12 Tributary Passage Projects
 - Hilton Creek (2)
 - Quiota Creek (8)
 - Salsipuedes Creek (2)



Improve & Protect Habitat Quality

- Site-specific projects to improve habitat quality in tributaries and the mainstem
- Conservation Easements & Leases



Bank Slump Repair Site, El Jaro Creek



Salsipuedes/El Jaro Creek Watershed

Increase Public Awareness

- Public Education and Outreach Program
 - Landowner Outreach
 - Workshops
 - Public Meetings
 - Website
- Grant Application Assistance
- Technical Training



Public Tour of Hilton Creek

Upper Basin Actions Considered

- Protection of Genetic Integrity During Upper Basin Stocking
 - Hatchery from local trout stock
 - Stocking with sterile trout
- Use of Upper Basin Habitat
 - Fish Ladder at Dam
 - Fish Bypass Channel
 - Trap & Truck Operations



Fish Passage At Bradbury Dam

- Implementation Challenges
 - collection of downstream migrants
 - passage through Lake Cachuma
 - potential genetic introgression
- Continue to Investigate
 - upper basin trout genetics
 - trout habitat & abundance
 - historical stocking



Bradbury Dam

Effects on Tidewater Goby and Other Estuary Species

- Currently abundant in Santa Ynez River Lagoon
- Mainstem target flows will not affect lagoon
- Fish Passage Account releases will occur on the receding limb of storm events



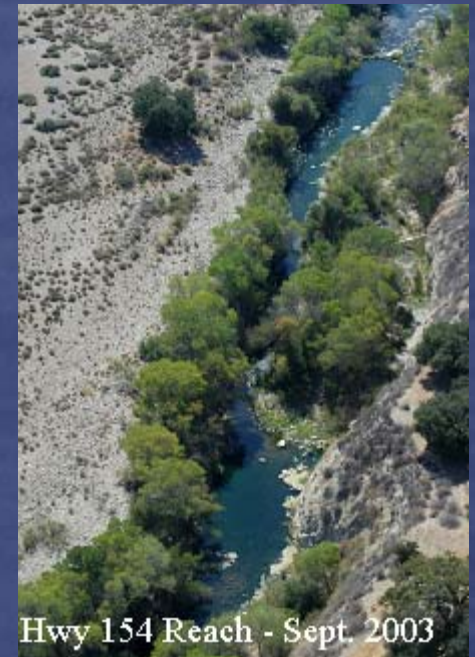
Effects on River Species

- Target flows will:
 - benefit river species by improving mainstem habitat
- Fish Passage Account releases will:
 - benefit migrating lamprey
 - not impact other native species



Fish Management Plan Success Criteria

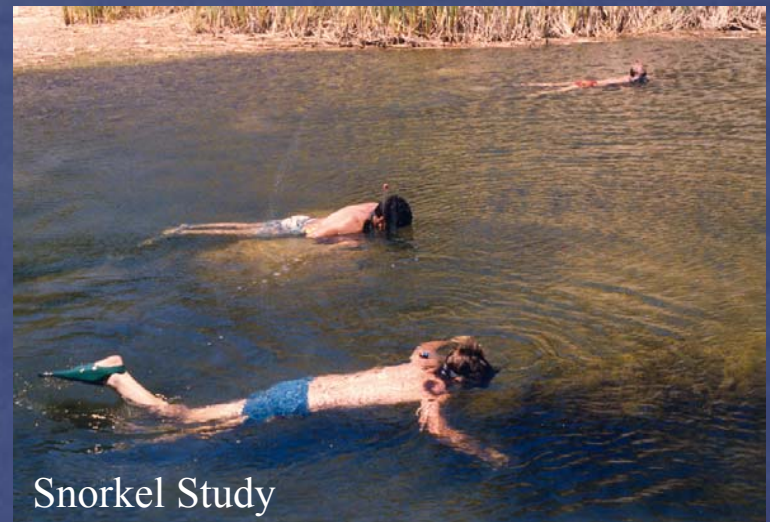
- Fish Management Plan outlines specific goals and measurable objectives
- Measured through improved habitat quality
- Monitoring to determine
 - successful implementation
 - habitat quantity and quality trends
 - track habitat utilization



Hwy 154 Reach - Sept. 2003

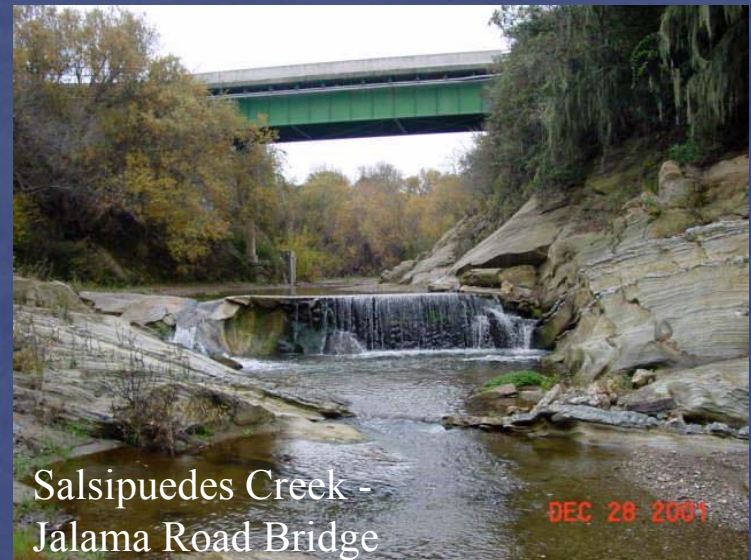
Adaptive Management Program

- Key for success of Fish Management Plan
- Adaptive Management Steps
 - Assess the problem
 - Experimental design
 - Implementation
 - Monitoring
 - Adjustment



Additional Project Opportunities

- Public education and outreach to landowners
- Development of new project opportunities
 - Road crossings
 - Riparian enhancement
 - Erosion control



Salsipuedes Creek -
Jalama Road Bridge

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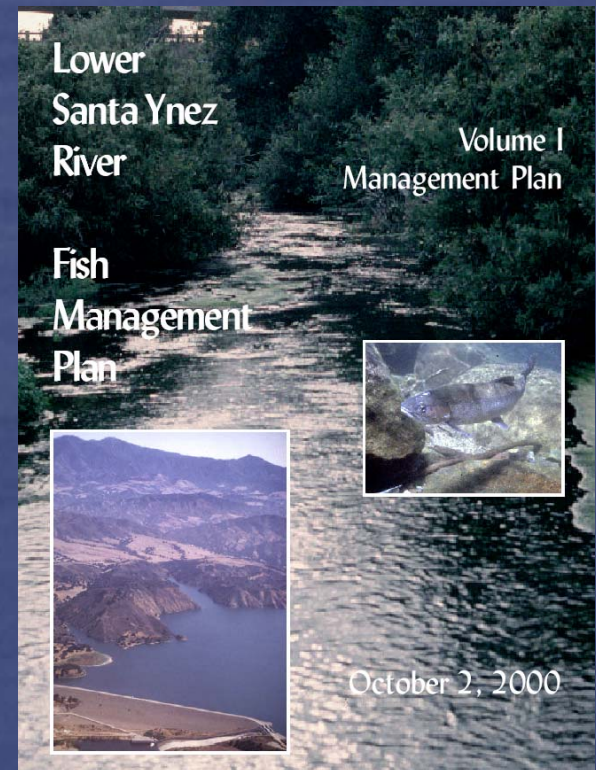
“Good Condition” Criteria

- Individual
 - healthy individuals
 - predator evasion response
- Population
 - extensive habitat for all stages
 - broad distribution of habitat
- Community
 - dominated by co-evolved species
 - limited niche overlap
 - resilient
 - persistent in species membership
 - replicated geographically

Source: Moyle, Marchetti, Baldrige, and Taylor 1998

Conclusions

- Increase the likelihood of survival and recovery of the Southern California Steelhead ESU
- Substantial biological benefit for public-trust resources in the Lower River
- High potential for success
- Improve condition of fish population



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