

**RRIFR**  
Russian River Instream  
Flow and Restoration

## Dry Creek Studies, Planning, and Enhancement

- Habitat Enhancement Feasibility Study
- Pipeline Feasibility Study
- Tributary Enhancements
- Fisheries Monitoring



130 cfs



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## 12 Year Restoration and Monitoring Requirements

**Biological Opinion:  
Projects Required in Dry Creek Valley**

2008 - 2011  
Conduct feasibility studies, and to prepare understanding Dry Creek and assess the feasibility of a pipeline from West Branch Spring Dam to the Russian River.  
Build five restoration projects on tributaries of Dry Creek.

Monitoring

2013 - 2014  
Restore one mile of habitat in Dry Creek

Monitoring

2015 - 2017  
Restore two additional miles of habitat in Dry Creek

Monitoring

2018  
Evaluate the success of restoration projects.

2019 - 2020  
Assess the success of projects and assess the value of a potential bypassing Dry Creek

- Multiple Phases
- Multiple Goals
  - 5 Tributary Projects
  - 6 Total Miles of Mainstem Restoration
  - 8 Sites (Upper, Middle, Lower)
  - Summer and Winter Habitat
  - Bank Stabilization
  - Flow Preservation

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## Dry Creek Mainstem Habitat Enhancement Study


- 1<sup>st</sup> Step in 12 Year Effort to Enhance 6 Miles
- Interfluve, Inc.
- August 24<sup>th</sup> for 2-3 weeks
- Habitat and Channel Geometry
- Meet Landowners, Discuss Opportunities




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## Dry Creek Mainstem Habitat Enhancement Study

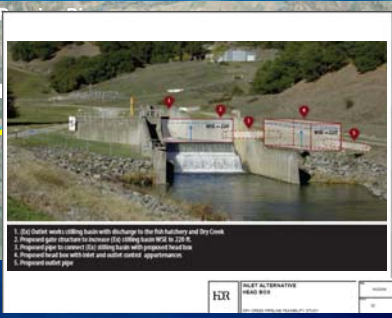
“Project Opportunity” =  
Habitat Value +  
Engineering Feasibility +  
Landowner Cooperation



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## Bypass Pipeline Feasibility Study

- HDR Engineering
- 4 Potential Routes
- Inlet Works
- Outlet Works



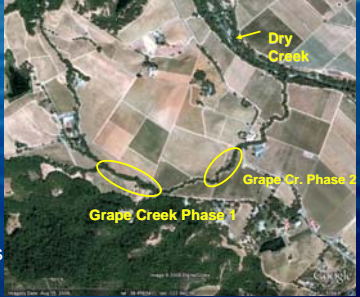
1. 24' Outlet works including basin with discharge to the fish habitat and Dry Creek.  
2. Proposed pipe structure to discharge dry creek to Russian River.  
3. Proposed pipe to connect Dry Creek to Russian River.  
4. Proposed structure with inlet and outlet control approximation.  
5. Proposed inlet pipe.

HDR

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## Dry Creek Tributary Enhancement Projects

- Sotoyome RCD
- Prunuske-Chatham, Inc.
- Dragonfly, Inc.
- Enhance Rearing Habitat
- Log, Boulders, Riparian Plantings
- Fish Passage



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### Dry Creek Tributary Enhancement Grape Creek Project Phase 1

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### Dry Creek Tributary Fish Passage Projects

- Sonoma Co. Public Works
- Prunuske Chatham
- CDFG
- Wallace Creek (Mill Cr.), Wine/Grape Cr., Crane Cr.

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### Dry Creek Biological Monitoring

- Fish Trapping (Spring-Summer)
- Tagging (Spring)
- Fish Population Sampling (Summer-Fall)

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### Dry Creek Fisheries Monitoring Plan

	J	F	M	A	M	J	J	A	S	O	N	D	
Sampling method	Winter			Spring			Summer			Fall			
Fry trap:				F									
Rotary screw trap:				F,P,S		Y,P							
PIT tag (wild):										Y,P			
PIT tag (hatchery):						Y							
Electrofishing:										Y,P			
PIT tag antennas:				PIT tagged fish									

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### Dry Creek Population Trend and Pre/Post Monitoring

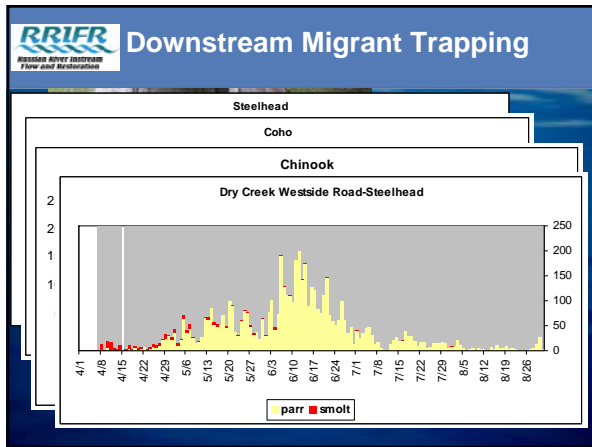
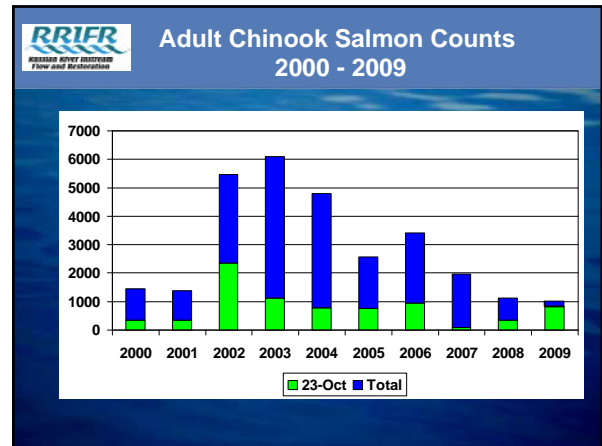
- Habitat enhanced and non-enhanced reaches
- Known number and identity of individuals (tagged) by reach

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### Dry Creek Population Trend and Pre/Post Monitoring

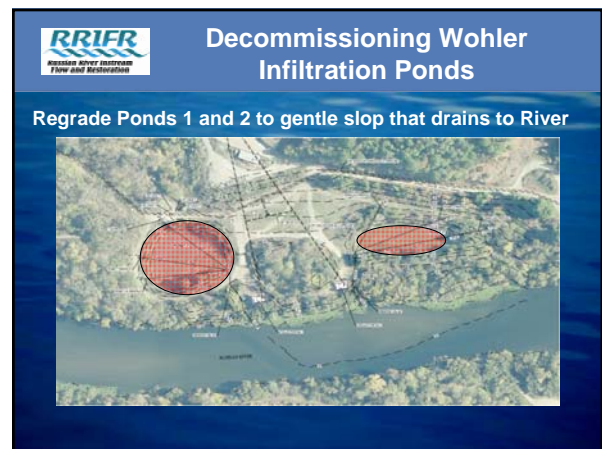
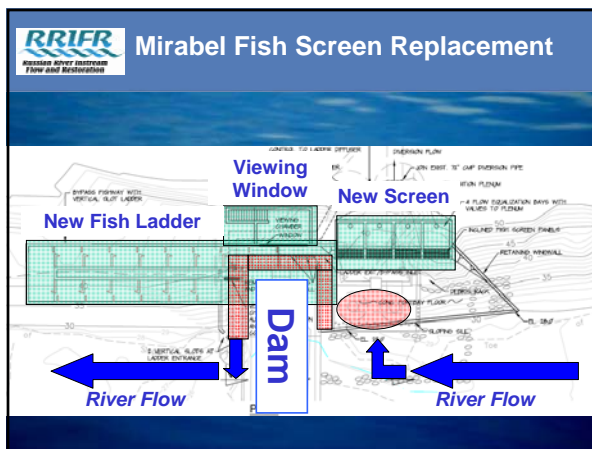
**RRIF** Russian River Mainstem Fisheries Monitoring

- Fish Trapping (Spring)
- Fish Ladder Video Monitoring (Summer-Fall)



**RRIF** Mirabel Fish Screen Replacement

- Feasibility Study Consultant - Prunuske Chatham
- Tech Advisory - NMFS and CDFG





## Next Steps

- **Dry Creek Habitat Enhancement Study**
  - Current Conditions Report (03/10)
  - Phase 2: Conceptual Designs (10/10)
- **Dry Creek Pipeline Feasibility Study**
  - Feasibility Report (03/10)
  - Engineering Report (10/10)
- **Tributary Enhancements**
  - Grape Creek Habitat (07/10)
  - Grape Creek Passage (10/10)
  - Crane Creek Passage (10/10)
  - Wallace Creek Passage (10/11)
  - Mill Creek Passage (10/11)

