Dry Creek Habitat Enhancement Project Update

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www.sonomacountywater.org
Dry Creek

14 miles

Warm Springs Dam

Russian River

Dry Creek - Mouth (gage)

Healdsburg
DRY CREEK HABITAT ENHANCEMENT PROJECT REACHES AND TIMELINE
COMPLETED AND IN-DESIGN PROJECTS, 2016

<table>
<thead>
<tr>
<th>Enhancement Projects</th>
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<tbody>
<tr>
<td>Projects In-Design for 2018 construction</td>
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<tr>
<td>Completed Projects</td>
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<tr>
<td>Construction in 2017</td>
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<tr>
<td>Potential Projects</td>
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Planned US Army Corps of Engineers project

<table>
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<tr>
<th>Milestone 1</th>
<th>Milestone 2</th>
<th>Decision point</th>
<th>Milestone 3</th>
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<tbody>
<tr>
<td>Complete design phase. Permitting. Landowner agreements. Begin construction</td>
<td>1 mile of habitat in Dry Creek completed and work on miles 2 &amp; 3 begins</td>
<td>Complete enhancement of miles 2 &amp; 3</td>
<td>Evaluate the success of the enhancement projects</td>
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<td>2012</td>
<td>2014</td>
<td>2017</td>
<td>2018</td>
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<td>Enhance 3 additional miles of habitat in Dry Creek for a total of 6 miles</td>
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<td>2020</td>
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Dry Creek - Past & Present

1980

2015
Enhancement Techniques
Phase 1 Completed Projects (2012-2014)

- 1.1 miles, backwaters, riffles, boulders, bank repair, and winter habitat enhancement

Farrow Backwater – October, 2013
Phase 2 Design Concepts - Interfluve, Inc.
Truett-Hurst Winery, Meyer Family, Williamson Wines, Carlson Family
Phase 2 Completed Projects October 2016

• 0.62 miles
• Flow-through side channel
• Multiple alcoves
• Constructed riffles
How the project weathered high water

≈2000 cfs
12-15-2016

≈200 cfs
12-19-2016
Phase 3 Design Concepts - ESA, Inc.
DaVero Winery, City of Healdsburg, Orsi (Geyser Peak)
Phase 3 Completed Projects - October 2016

- 0.42 miles, two side channel complexes, alcoves
December High Water at Orsi property

12-15-2016
≈4000 Cfs

12-18-2016
≈300 Cfs
Monitoring Methods

- Primary monitoring methods are snorkeling in the spring and summer, electrofishing in the summer and operation of PIT antennas in the fall, winter and spring.
Monitoring Results

- All off-channel features constructed by the Water Agency and USACE have been used by juvenile coho salmon and steelhead.

- We have also seen use of some backwaters by coho, Chinook and steelhead adults as well as newly hatched young Chinook.
Coho salmon observed in newly constructed side channel at Truett Hurst
Collaboration with Property Owners

- Easements needed from more than 50 property owners
- Salmon Stewards Program
- NMFS Dry Creek Safe Harbor Program