Dry Creek Habitat Enhancement

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SONOMA COUNTY WATER AGENCY

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Juvenile Coho and Steelhead Summer and Winter Rearing Habitat

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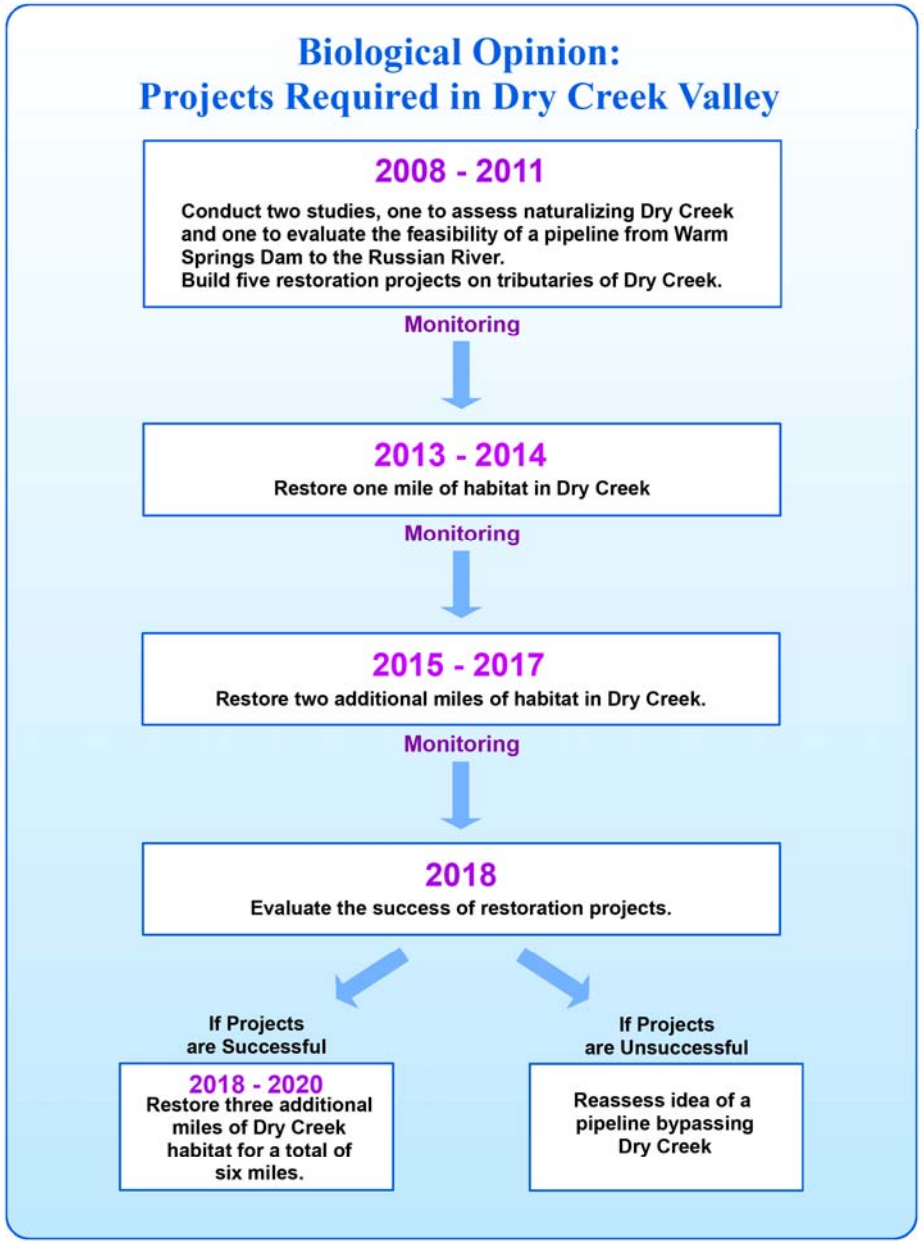
Dry Creek Objectives & Timeline

- Reduce water velocity for coho summer and winter rearing
- Create near optimal depth, cover, habitat complexity
- Enhance 6 of 14 miles (10 of 22 km)
- 12 years
- Use an Adaptive Management Approach



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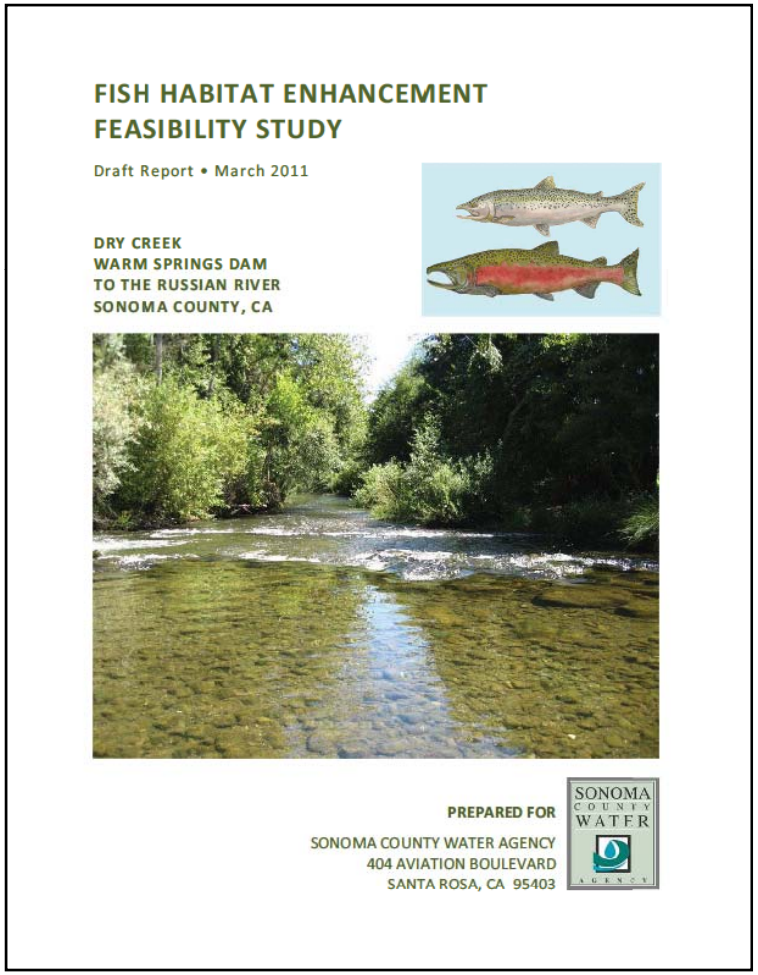
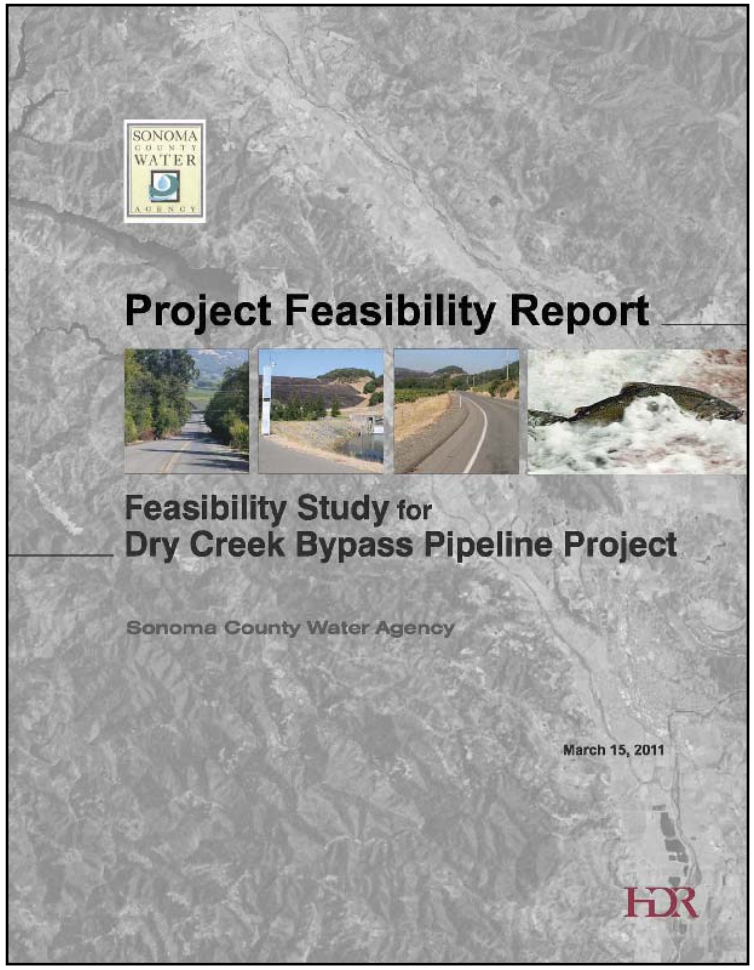
Plan "A"
Habitat Enhancement



Plan "B"
Bypass Pipeline



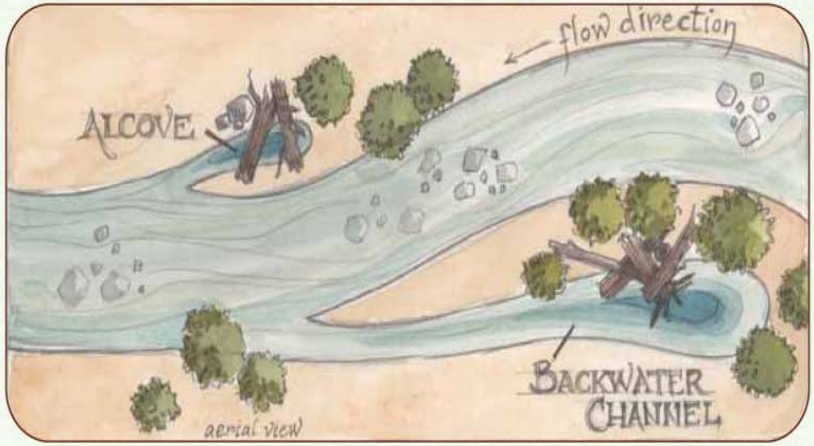
Dry Creek (Lake Sonoma to Russian River)

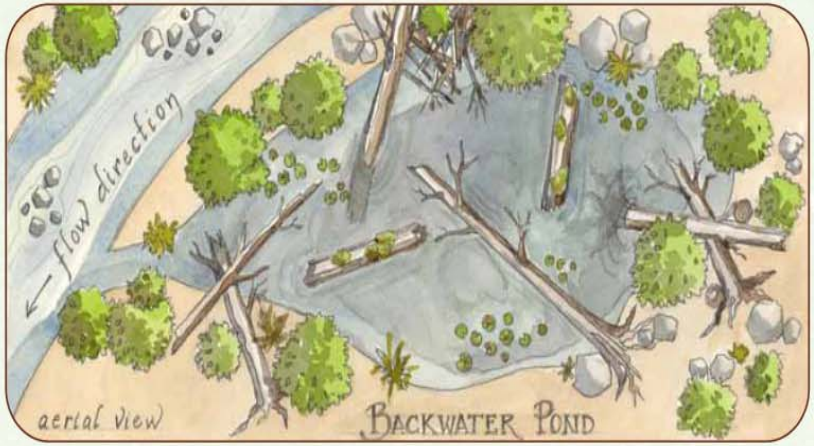
1980

2010

Enhancement Techniques

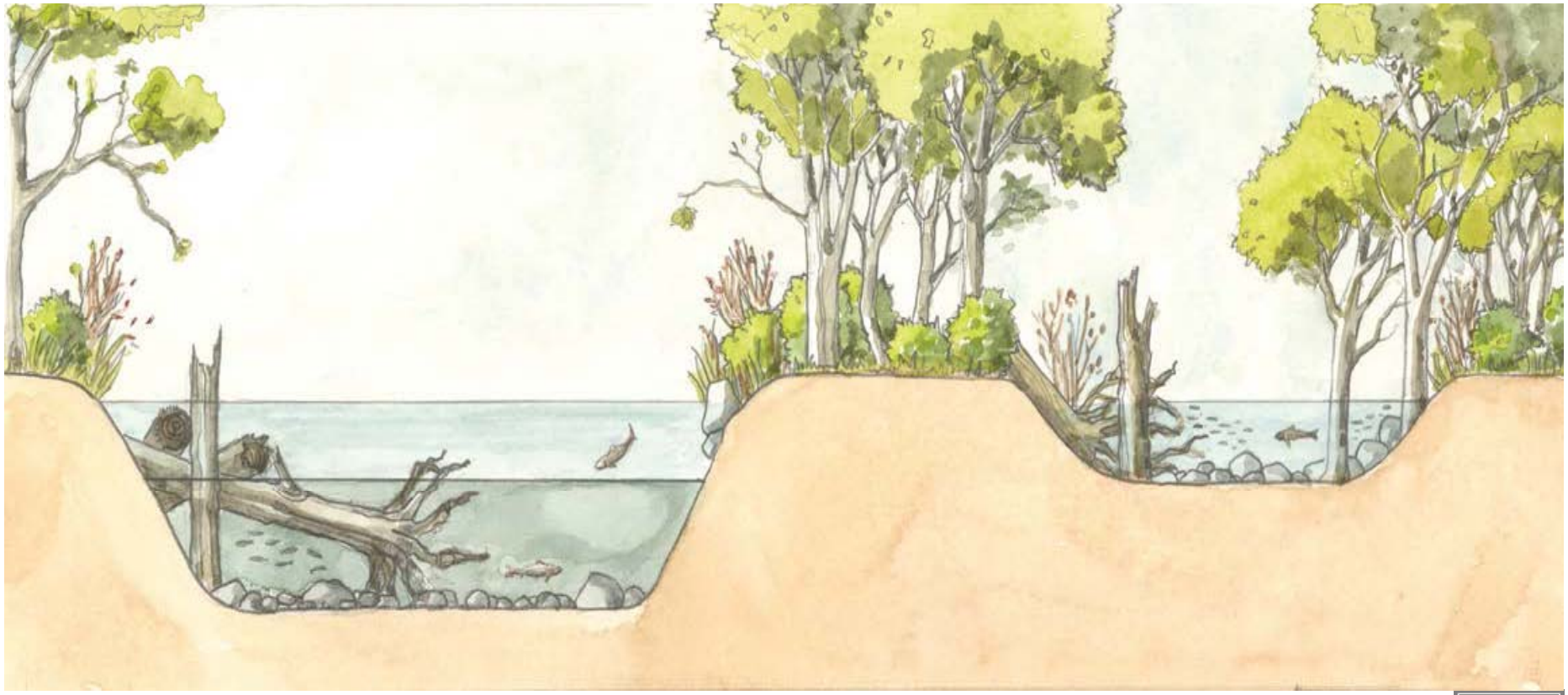
Low Velocity Backwater Pools, Alcoves Side Channels





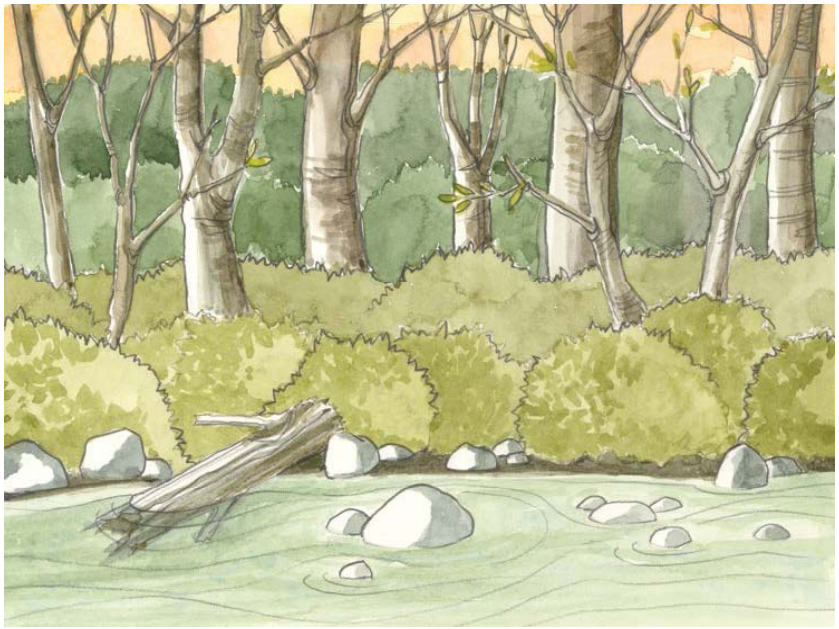
Enhancement Techniques

Winter Refuge Habitat

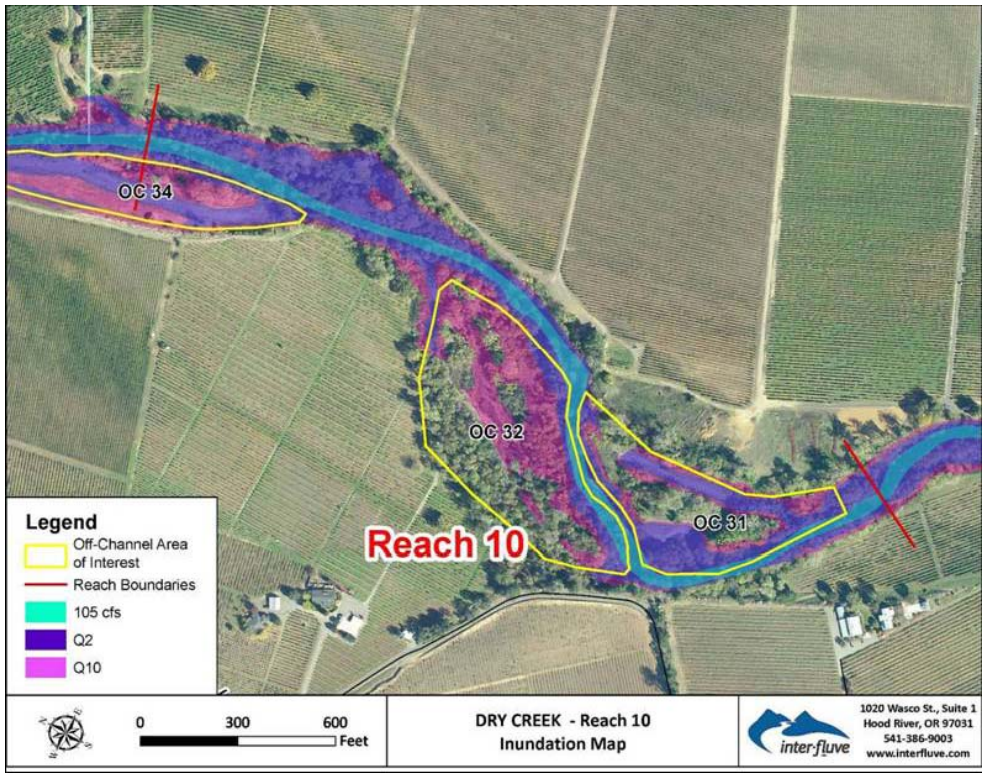


Enhancement Techniques

Vegetation Management

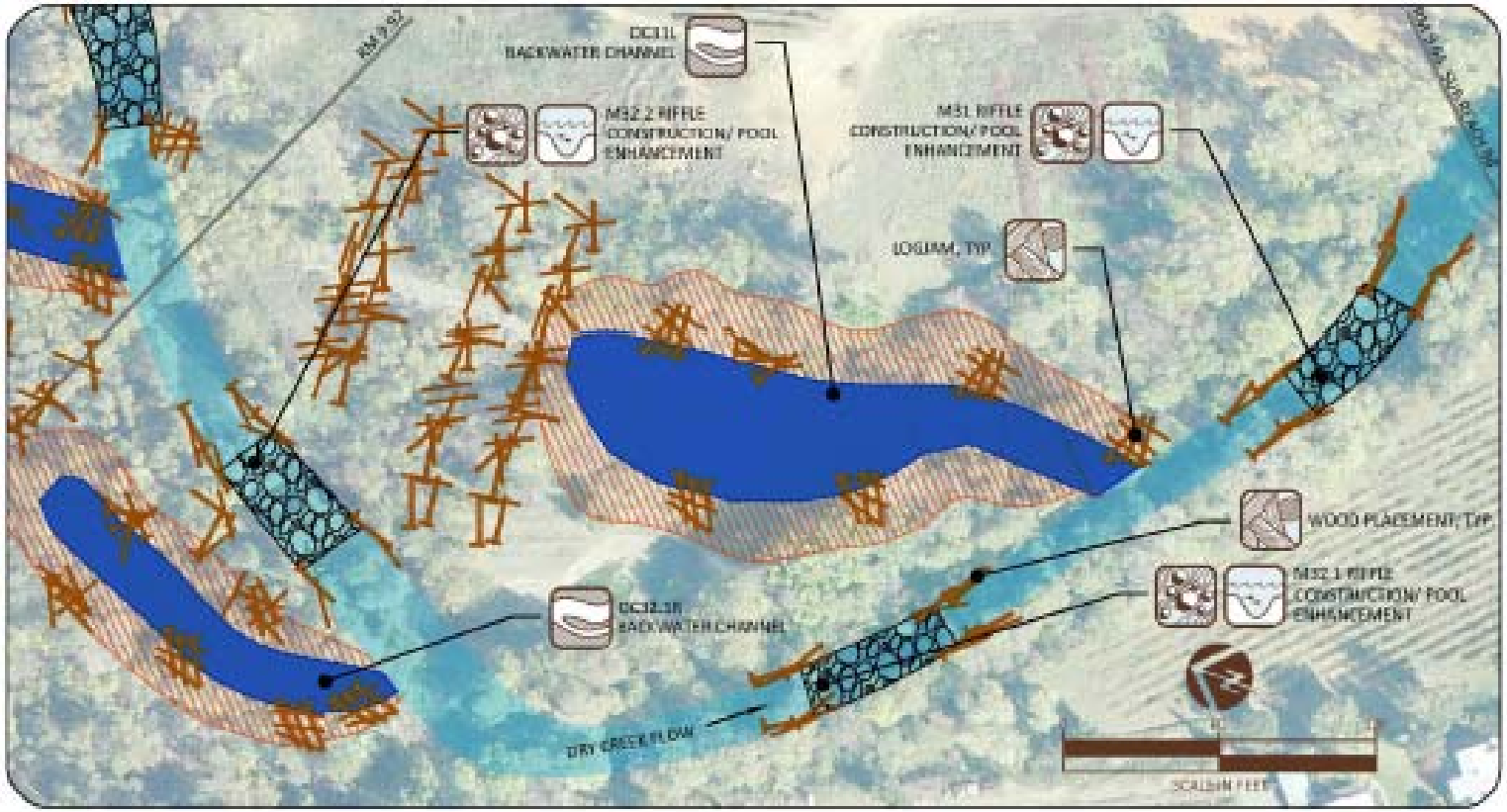


Habitat Feasibility Study



- 45 Potential project opportunities
- Distributed throughout 14 miles
- 9 miles of off channel habitat
- Total cost for 6 mile objective = $36 to $48 Million

Summer Habitat Opportunities



LEGEND

MAIN CHANNEL AT 110 CFS

OFF CHANNEL HABITAT

GRADING LIMIT

RIFFLE CONSTRUCTION/ ENHANCEMENT

SUB REACH 10 A
CONCEPT DESIGN
1 OF 2

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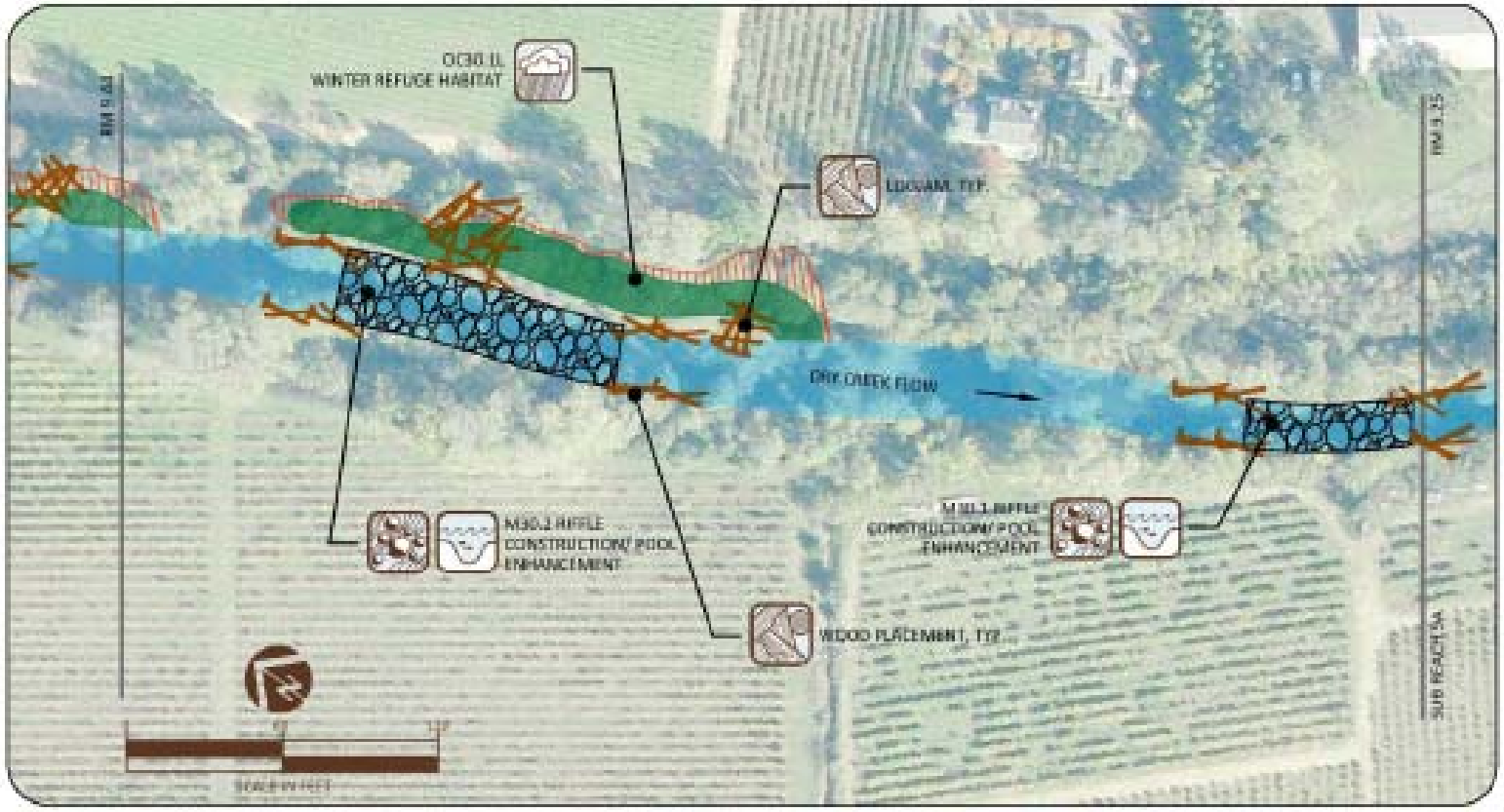
Winter Habitat Opportunities



LEGEND

MAIN CHANNEL AT 110 CFS

GRADING LIMIT

RIFFLE CONSTRUCTION/ ENHANCEMENT

WINTER REFUGE

SUB REACH 9 B
CONCEPT DESIGN
1 OF 2

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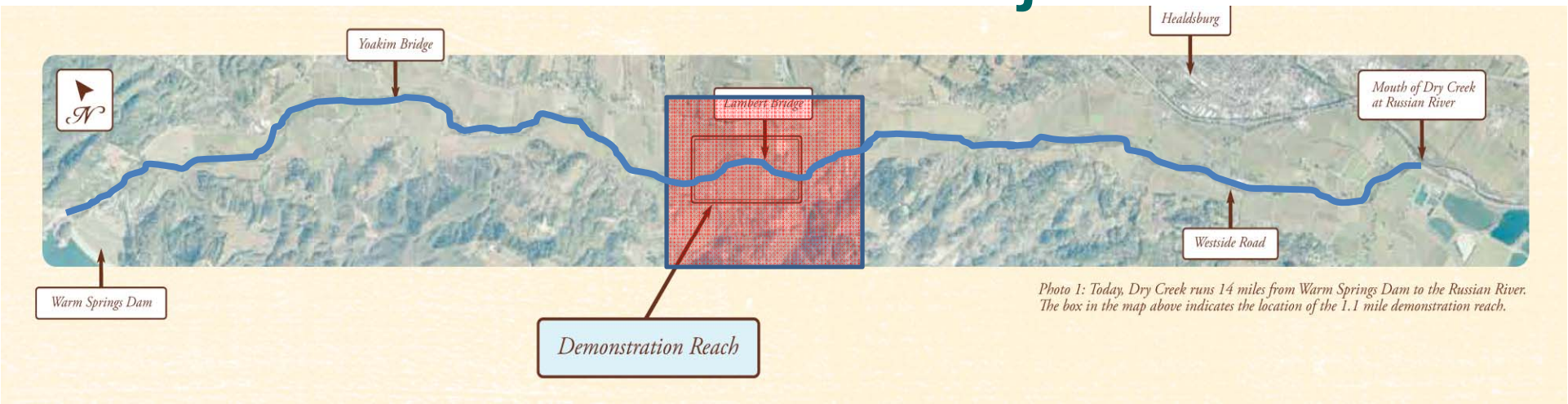
Demonstration Project

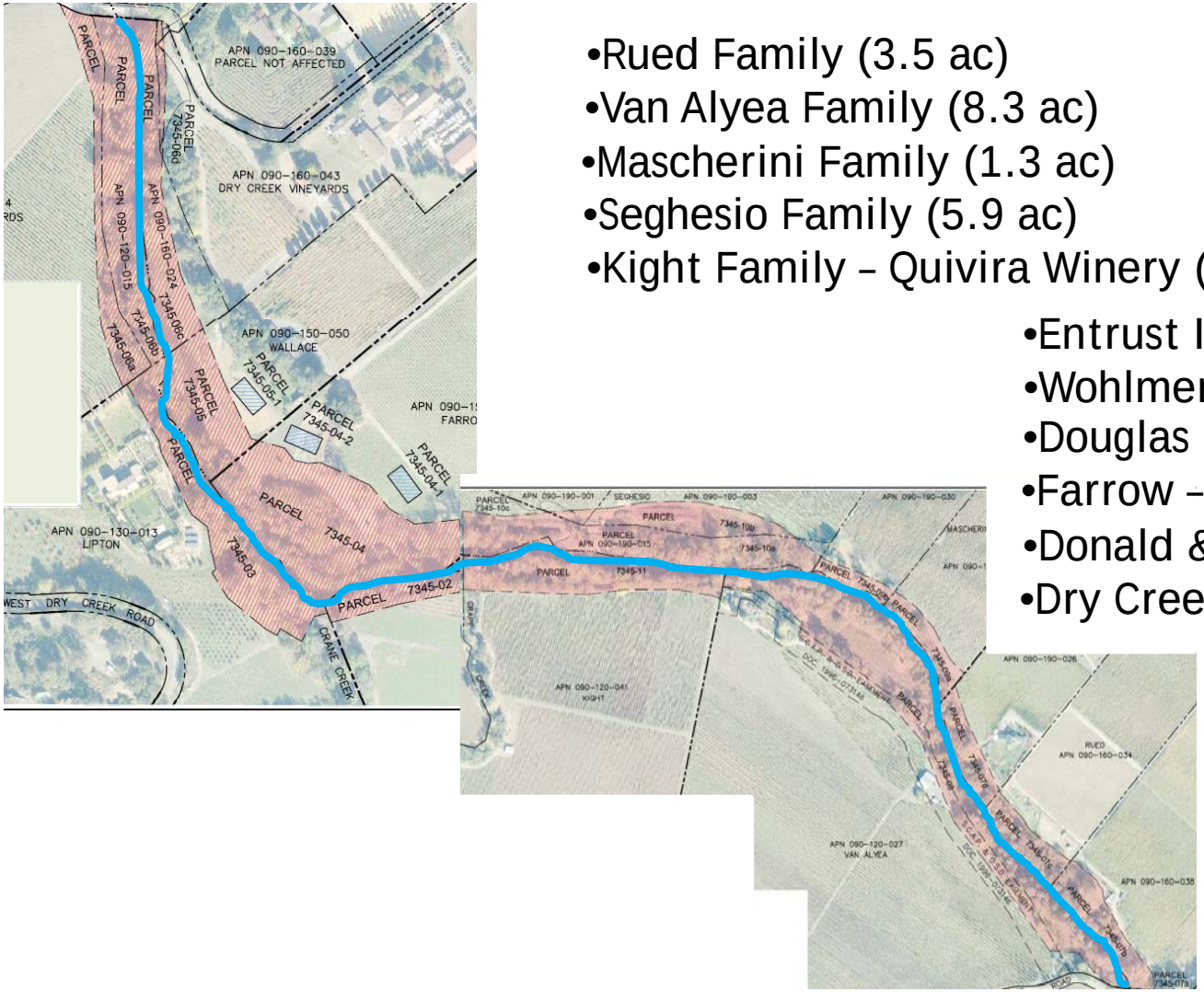


- Dry Creek Valley
170 owners

•11 Voluntary landowners including 5 Wineries along 1 Contiguous Mile

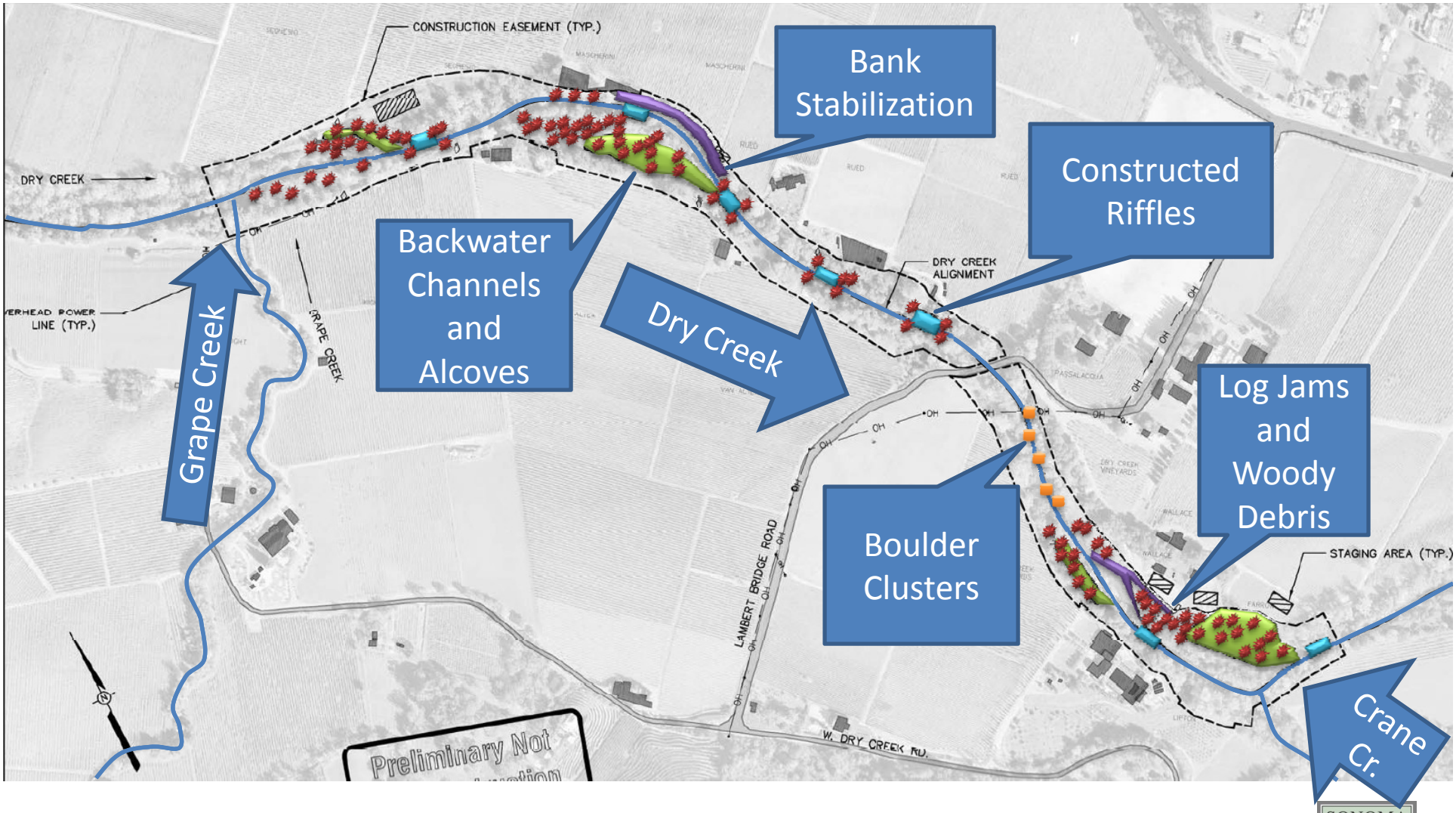
- Implementation in 2012-2013

Project Participants



- Rued Family (3.5 ac)
- Van Alyea Family (8.3 ac)
- Mascherini Family (1.3 ac)
- Seghesio Family (5.9 ac)
- Kight Family – Quivira Winery (3.3 ac)
- Entrust Inc. (0.03 ac)
- Wohlmer Family(0.6 ac)
- Douglas Lipton (2.0 ac)
- Farrow – Amista Winery (3.8 ac)
- Donald & Kim Wallace (1.3 ac)
- Dry Creek Vineyards, Inc. (4.8 ac)

Demonstration Project 90% Design Details



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Status and Next Steps

- CEQA/Project Approval Complete
- 90% Design Approval by NMFS and DFG (comments received Jan 2012)
- Complete Landowner Negotiations (easement offers were made Jan 2012)
- Obtain Permits (applications submitted Dec 2011)
- Advertise for Log Procurement and Construction Spring 2012
- Construction Summer 2012 – Fall 2013

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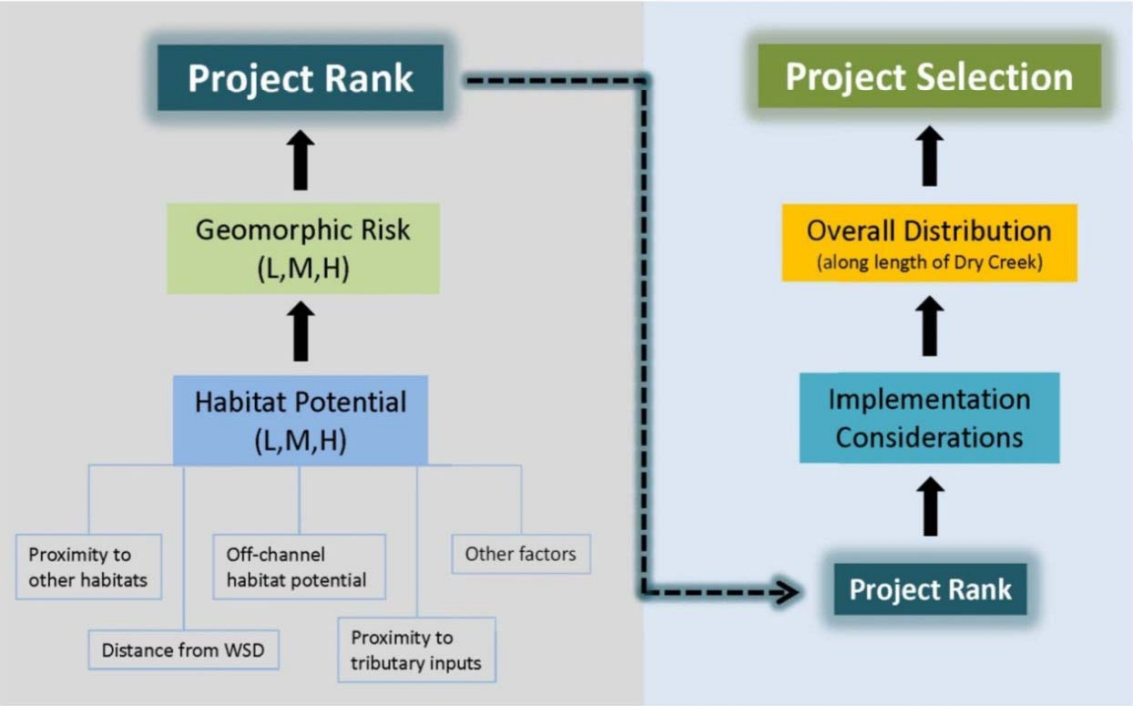
Future Habitat Projects In Dry Creek

- Miles 2-3 - 2015-2017
- Miles 4-6 – 2018-2020
- Site Evaluation and Ranking
- Landowner Outreach
- Additional CEQA, Permitting, Right of Way



Grape Creek Projects

Habitat Enhancement Projects Completed 2010

Fish Passage In Progress

Crane Creek Fish Passage Project

Completed October
2011

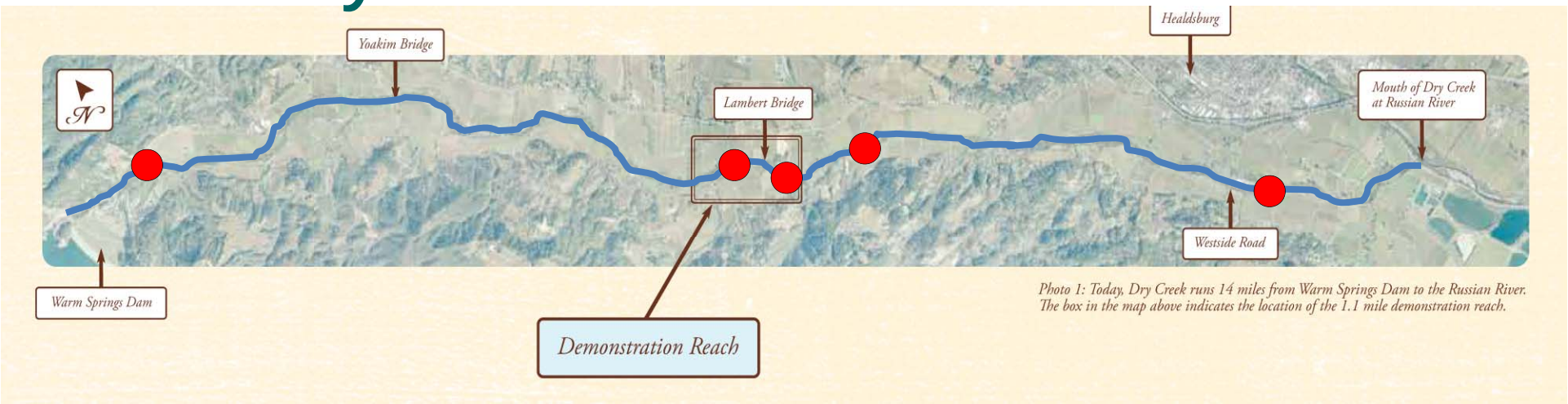
Wallace Creek Fish Passage Project

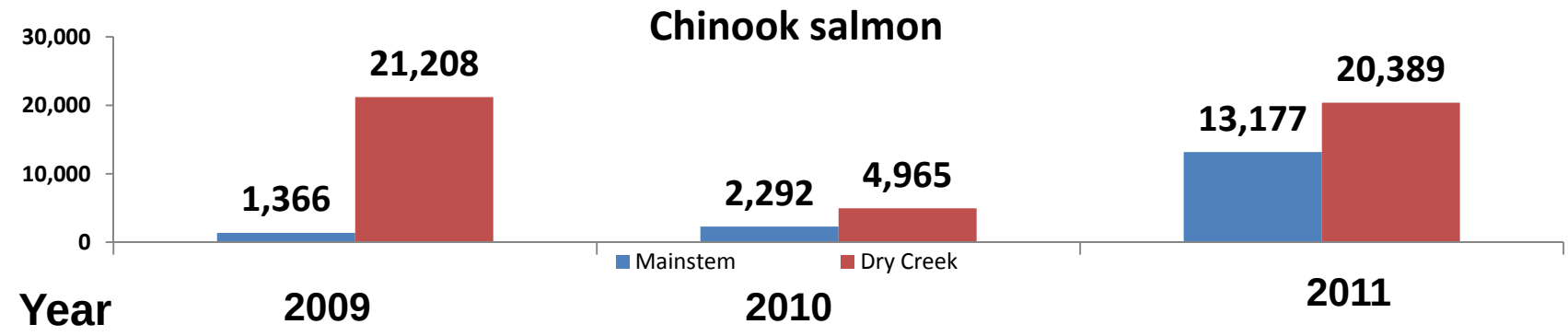
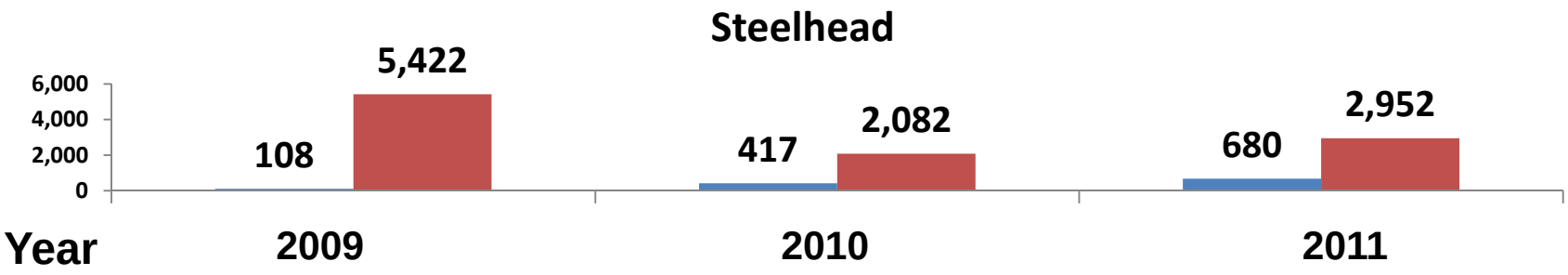
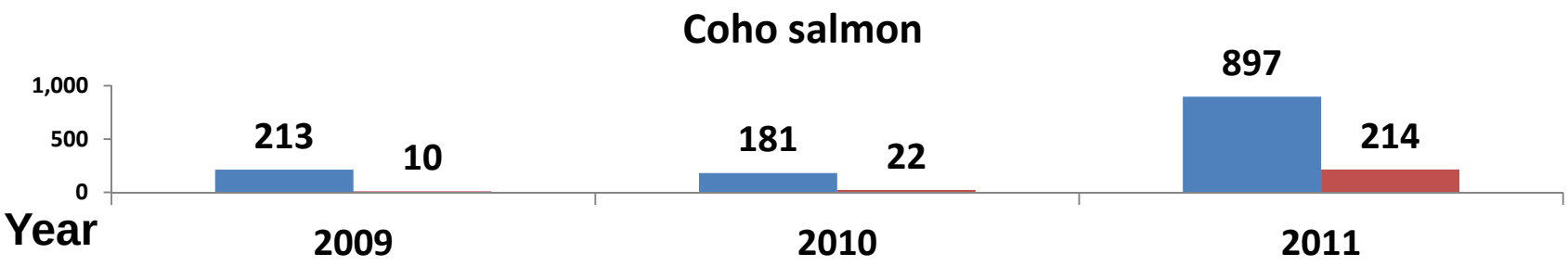
In Progress

Willow Creek Fish Passage Project

Completed October
2011

Wild Dry Creek Juvenile Coho Salmon



- Wild juvenile coho captured for first time
- 5 locations
- 86 wild coho smolts in 2011 only 3 in 2010 (96% increase)

Juvenile Downstream Migrant Trap Data