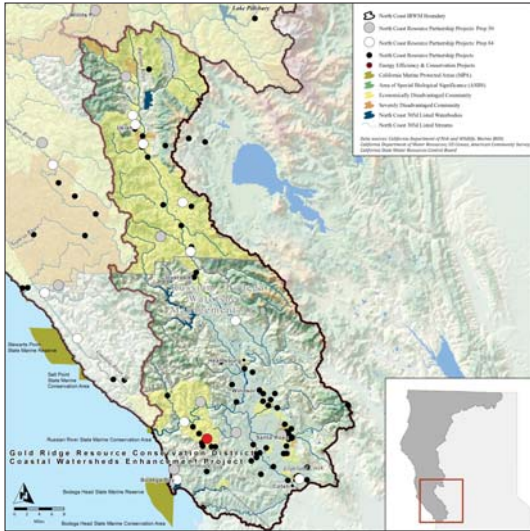


Coastal Watersheds Enhancement Project, Phase 2

GOLD RIDGE RESOURCE CONSERVATION DISTRICT



STATEMENT OF THE PROBLEM

The Gold Ridge district's coastal watersheds, including Salmon Creek and the Russian River tributary of Dutch Bill, once provided high quality habitat for coho salmon and steelhead. The Estero Americano, while not a coho-bearing stream, sits at the heart of the Pacific Flyway and serves as an important coastal wetland for numerous species of concern, including the winter-run steelhead trout. In recent decades, increased water diversions, sedimentation, and loss of habitat complexity have led to a decline in riparian health and alarming crash in salmonid populations. Dutch Bill Creek saw a complete extirpation of its once thriving coho population, with the last remaining wild juvenile Coho observed during the summer of 2006. Since 2006 Dutch Bill Creek has been a priority site of juvenile Coho releases through the Russian River Coho Salmon Captive Broodstock Program. The creek suffers from two main limiting factors to salmon recovery: a lack of habitat complexity due to the absence of large wood, and large-scale summer water diversions. One of these diversions decreases streamflow by up to 0.3 cfs (which can amount to 100 percent of streamflow) over a period of several hours, on a frequency that varies between two and seven times per week.

The Salmon Creek and Estero Americano watersheds suffers from considerable sedimentation, water shortages, and riparian health impacts. Dairy farms within these watersheds are their most significant water users.

PROJECT GOALS

1. Streamflow augmentation in key reaches
2. Enhanced instream habitat
3. Fine sediment reduction
4. Public outreach and education

THE SOLUTION

The project will integrate a variety of strategies to improve water resources:

- Implement an off-channel water storage system in the Dutch Bill Creek watershed that will combine with irrigation improvements and other water conservation efforts to completely eliminate the creek's most significant diversion;
- Address key limiting factors to salmonids through Instream habitat improvements;
- Construct a large-scale roof rainwater catchment system on a dairy operation along Salmon Creek to reduce summer diversions from an alluvial well;
- Implement upland and streambank sediment source reduction projects throughout the coastal watersheds.

PROJECT IMPLEMENTATION

The project work plan includes four main components to achieve these goals:

1. Eliminating the largest diversion from Dutch Bill Creek through irrigation improvements and the construction of an approximately 250,000 gallon water storage tank and conveyance system;
2. Construction of 27 large wood structures along the Dutch Bill Creek to improve salmonid habitat;
3. Construct off-channel water storage for

the largest remaining diversion on Salmon Creek;

4. Implement small-scale, landowner-initiated sediment reduction projects.

PROJECT BUDGET

IRWM funds:	\$ 307,750
Leveraged funds:	\$ 144,500
TOTAL	\$1,337,750

BENEFITS

Economic

- Estimated \$1.45 million annually for passive use value associated with increases in salmonid populations
- Estimated \$7,427 per year for increased flows for environmental purposes
- Estimated \$4,150 per year for avoided costs due to sedimentation

Watershed Rehabilitation

- Improved fish and wildlife habitat
 - » Increased instream flows, decreased sedimentation, and enhanced instream habitat will create conditions favorable to increased salmonid populations

Cultural and Social

- Outreach for this project is likely to increase public understanding of and support for water conservation and watershed enhancement projects
- Increased salmon populations have an intrinsic value outside the cultural framework and economic terms often imposed by western society

Jobs and Local Economy

- Over \$ 1.3 million will be spent locally using local labor and supplies when possible, thus contributing to State goals for environmental justice and social equity
- Approximately 12 jobs created/maintained
- At least two local businesses will have a more secure water source
- By providing capacity to store water, the project reduces the likelihood that people will experience unmet demands when water is scarce

NEXT STEPS & RECOMMENDATIONS

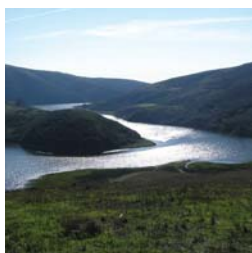
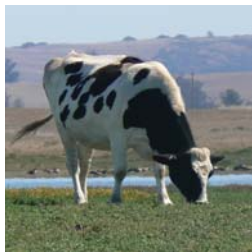
These projects further advance GRRCD's expanding water conservation program, working to provide immediate benefits to riparian systems while advancing technologies to prepare its communities for less predictable rainfall patterns in the long run. In addition to streamflow augmentation, these key reaches will benefit from instream habitat improvements and sediment source management. These components all contribute to the GRRCD's integrated approach to water management, balancing watershed health with community water resource needs.

CONTACT

Noelle Johnson
Gold Ridge Resource Conservation District
2776 Sullivan Rd, Sebastopol, CA 95472
707.823.5244

ACKNOWLEDGEMENTS

The project team would like to thank the USDA Natural Resources Conservation Service, the Department of Fish and Wildlife, Dragonfly Stream Enhancement, Streamline Engineering, FishAmerica Foundation, and participating landowners.



NORTH COAST RESOURCE PARTNERSHIP