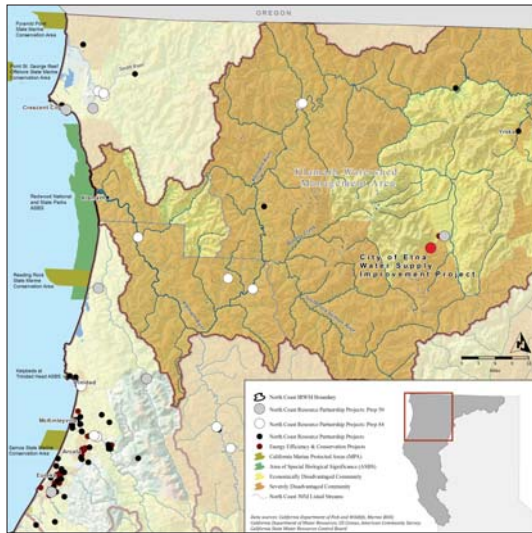


City of Etna Water Supply Improvement Project

CITY OF ETNA



STATEMENT OF THE PROBLEM

The City of Etna's water infrastructure had not been upgraded in over 30 years and was in need of improvement. Additionally, the existing structure blocked passageway for adult and juvenile salmonids.

PROJECT GOALS

Short-term goals

- Complete repairs and improvements to the City's water supply system
- Restore fish passage to 4.8 miles of habitat
- Install and use instream gauge

Long-term goals

- Ensure water supply reliability for the City of Etna
- Increasing anadromous fish population above dam site

THE SOLUTION

This project is located on Etna Creek in the Scott River watershed, a main tributary to the Klamath River. The 27,500-acre watershed supplies domestic water for the City of Etna, irrigation water for agriculture, and habitat for resident and anadromous fish. A water system feasibility study in 2004-5 showed need for extensive improvements to the diversion dam and related structures. Project completion ensures continued domestic water supply reliability for the City, fish access to habitat above the dam, and accurate stream flow data.

PROJECT IMPLEMENTATION AND ACCOMPLISHMENTS

The water supply diversion consists of a reinforced concrete dam across Etna Creek. The dam crest was rehabilitated to improve fish passage over the spill way. The fish ladder was replaced with a reinforced concrete step and pool that has already provided fish passage. The sediment basin was reconstructed, a stream flow gage was placed on the supply line, and a fish screen was installed on the intake. City funding was used to replace 60-year old deteriorating steel pipeline with new waterworks standard PVC pipeline.

- August 18, 2010: Instream excavation began
- August 25, 2010: Diversion dam rehabilitation began
- September 1, 2010: Fishway construction began
- October 15, 2010: Sediment basin rebuilt
- November 29, 2010: Basic fencing completed
- December 10, 2010: Construction substantially completed

COMPLETION DATE

December 2010

PROJECT BUDGET

IRWM funds: \$ 593,936
Leveraged funds: \$ 69,334
Total cost: \$ 663,270

BENEFITS

Economic benefits

- Increased recreational benefit estimated at \$31,277
- Avoided project costs are estimated to be \$842,707

- A reliable water supply makes the City more attractive to potential new low-impact businesses and industries
- The City may now move ahead with economic development plans knowing the water supply is in excellent condition and capable of supplying water for predicted growth

Water Supply

- Avoided water supply costs associated with maintenance, water shortages, and water purchases are estimated to be \$74,107
- Funding for the project has allowed the City to keep water rates low in this Economically Disadvantaged Community
- 60% decrease in summer water emergencies caused by insufficient flow

Habitat and Ecosystem Function benefits

- 4.8 miles of salmonid habitat newly available on Etna Creek above the dam

Cultural benefits

- Community cohesiveness. This project garnered community affirmation and was seen as a necessary and expedient use of funds for the benefit of Etna citizens while also fulfilling environmental conservation and fish habitat goals.
- Conflict reduction. This project is likely to ease water-related conflicts and demonstrates the City of Etna's commitment to collaborating with local and regional groups working towards solutions to water-related problems.

Jobs and Local Economic Benefits

- Project implementation cost \$663,270, which was spent locally using local labor and supplies when possible, thus contributing to State goals for environmental justice and social equity.
- Jobs maintained: 2 city employees.
- Secure and reliable source of pure mountain water kept high water-use businesses operating supporting 10-15 employees, depending on the season.
- In spite of an extreme dry year, the City of Etna supplied potable water for three large wildfire "Incident Camps" for over three weeks (over 2000 firefighters) for which the City was paid at the regular water rate.

NEXT STEPS

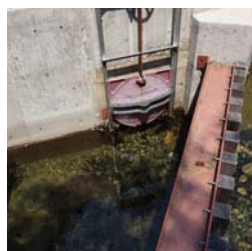
The installation of the stream flow gauge will provide baseline data for changing future conditions.

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NORTH COAST RESOURCE PARTNERSHIP