

Mattole Integrated Water Management Program

MATTOLE RESTORATION COUNCIL (MRC)



STATEMENT OF THE PROBLEM

Excessive sedimentation and increased summertime water temperatures, predominantly caused by land-use impacts and road construction, have led to the listing of the Mattole River on the 303(d) list and development of a basin-wide TMDL.

PROJECT GOALS

Short-term: Implement sediment reduction projects, enhance riparian canopy, and install large-scale water storage
 Long-term: Reduce water temperatures, improve streamflow and enhance spawning and rearing habitat for salmonids

THE SOLUTION

Because of its land-use history, complex geology, intense rainfall and mixed ownership, the Mattole basin presents unique challenges for TMDL implementation. MRC's Good Roads, Clear Creeks Program, of which this project is a component, offers a means for voluntary treatment of sediment and temperature problems through inventory, treatment and monitoring within a hydrological context (MRC, 2005).

PROJECT IMPLEMENTATION AND ACCOMPLISHMENTS

Within the project area, the Mattole Integrated Water Management Program accomplished the following tasks:

- Treatment of 284 sediment sources: 236 road upgrades sites, 17 road decommissioning sites, 4 agricultural ponds, and 27 stream bank sites. These projects resulted in the removal of approximately 19,220 yds³ of sediment and the stabilization of an estimated 96,920 yds³ of sediment over the expected life of the projects (15 years).
- Installed large-scale water storage and completed forbearance agreements for 12 properties
- Installed 735,000 gallons of storage (8x 50,000 gallon systems; 3 x 100,000 gallon systems; 1 x 35,000 gallon system)
- Planted 38,282 trees along 13.25 miles of project area riparian zones.
- Installed 850 ft. of willow fence
- Distributed riparian tree, shrub, and grass seed on 10.5 acres
- Conducted riparian assessments along the mainstem of the Mattole River
- Removal of Noxious Weeds across approximately 200 acres
- Collected data on stream channel condition at 60 sites
- Collection of turbidity and discharge data at 11 tributary streams

COMPLETION DATE

March 2013

PROJECT BUDGET

IRWM funds: \$1,543,743
 Leveraged funds: \$1,413,061
Total cost: \$2,956,804

BENEFITS

Economic benefits

- Sediment removal from chronic sources has an estimated economic benefit of \$157,008 /yr and from episodic sources, such as landslides, and a one-time benefit of \$31,136¹
- Planting 38,282 trees (60% survival rate) yielded an estimated economic benefit of \$48,235 over a 50 year period
- Invasive species removal on approximately 200 acres yielded an estimated economic benefit of \$24,000 per year³

Water Quality

- 5,189 tons of sediment removed from potential landslide sites
- 26,168 tons of sediment stabilized from roads, agricultural ponds, and stream banks

Water Supply

- Installed 12 large-scale water storage at 12 properties
- Habitat and Ecosystem function benefits
- Planted 38,282 trees along 13.25 miles of riparian zones
- Installed 850 feet of willow fence
- Distributed riparian tree, shrub, and grass seed on 10.5 acres of sediment reduction sites

Jobs and Local Economic Benefits

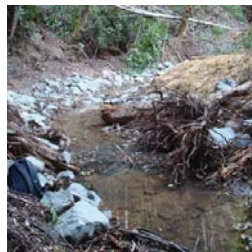
- The project cost \$2,956,804, which was spent using local labor and supplies when possible, contributing to State goals for environmental justice and social equity

NEXT STEPS & RECOMMENDATIONS

The Mattole Integrated Water Management Program was complemented by other efforts throughout the watershed. Numerous ongoing activities in the watershed fall outside of this grant's scope and funding, but contribute to comprehensive restoration and conservation efforts. Extensive sediment reduction projects continue as well as forestry projects including fuels reduction projects and community outreach and education.

CONTACT

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NORTH COAST RESOURCE PARTNERSHIP