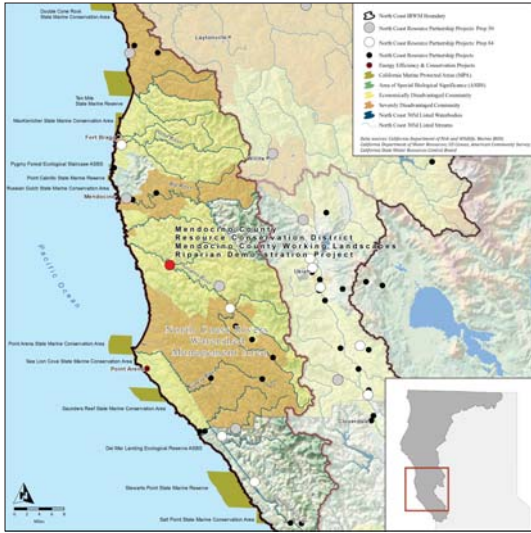


# Mendocino County Working Landscapes Riparian Demonstration Project

## MENDOCINO COUNTY RESOURCE CONSERVATION DISTRICT (MCRCD)



### STATEMENT OF THE PROBLEM

Spanning approximately 30 miles on the upper main stem Russian River, more than 60 stands of *Arundo donax* have been identified. The *Arundo* invasion threatens to biodiversity and connectivity of riparian habitat in the Russian River, and directly impacts habitat for threatened salmonids. In addition, *Arundo* increases fuel loads, contributing to wildfire risk. It also has the potential to exacerbate flooding and contribute to downstream flood damage.

In Denmark Creek, a failing culvert upstream of a recently completed riparian and instream restoration project, is cutting off access to upstream spawning and rearing habitat for steelhead. The culvert, located on an abandoned segment of Highway 128, is not functioning and diverted flows are further eroding the stream channel. Within the next 20 years, the culvert is expected to fail in an episodic event and deliver fill to the channel, damaging downstream structures and restored habitat.

restore the streambank back to a 2:1 slope and revegetate bare soils with native California trees and shrubs, seed with native erosion control seed mix, and mulch with weed-free rice straw, creating approximately 0.3 acres of riparian habitat.

### PROJECT BUDGET

<i>IRWM funds:</i>	\$184,800
<i>Leveraged funds:</i>	\$ 23,244
<b>TOTAL</b>	<b>\$208,044</b>

### BENEFITS

#### Economic

- Approximately \$3,750 per year in avoided emergency repair costs associated with culvert failure
- Approximately \$500 in avoided costs associated with road maintenance
- Approximately \$3,686 per year in avoided costs associated with sediment deposition
- Approximately \$856 over 50 years for passive use value associated with enhanced and increased riparian habitat

#### Water Quality

- Reduction of 7,172 tons of sediment delivered to Navarro River system
- Watershed Rehabilitation
- Improved fish and wildlife habitat
- Improved instream conditions create conditions for increased salmonid populations

#### Cultural and Social

- The project will demonstrate best practices for riparian restoration which will likely improve land management

#### Jobs and Local Economy

- All funds will be spent using local labor and supplies when possible, thus contributing to State goals for environmental justice and social equity
- 8–10 jobs created/maintained
- Other local economic benefits:
  - » Improvements to aesthetic amenities at Denmark Creek are likely to contribute to improvement in recreation quality and quantity
  - » Decreased wildfire risk
  - » Decreased flooding risk

### NEXT STEPS & RECOMMENDATIONS

Both parts of this project are components in larger programs that improve fisheries, water quality, and associated beneficial uses in their respective watersheds. MCRCD will continue to seek funding and implement projects that advance these programs.

#### CONTACT

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### PROJECT GOALS

1. Demonstrate cost-effective methods of restoring riparian habitat
2. Demonstrate cost-effective methods of erosion control
3. Outreach and education to promote voluntary riparian enhancement

### THE SOLUTION

MCRCD is proposing two riparian demonstration projects on working landscapes in the Upper Russian and Navarro watersheds. These include: Upper Russian River *Arundo* removal and riparian enhancement and Phase 2 of Denmark Creek Riparian Restoration.

### PROJECT IMPLEMENTATION AND ACCOMPLISHMENTS

1. **Upper Russian River:** MCRCD and agricultural operators will remove large infestations of *Arundo* from the banks of the river channel. MCRCD will follow-up with native revegetation over a three-year period, particularly in areas where bank erosion is a concern. MCRCD will use native willow sprigging or willow mattresses on bank slopes and other native species on uplands. Monitoring and maintenance—which includes checking for reinvasion, controlling new infestations, and ensuring that revegetation maintains a sustainable survival rate—will occur for three years.
2. **Denmark Creek:** MCRCD will remove the failing culvert upstream of newly restored habitat, opening approximately 0.4 miles of available spawning and rearing habitat. MCRCD will also

