

MAD RIVER WATERSHED SEDIMENT CONTROL TASKS

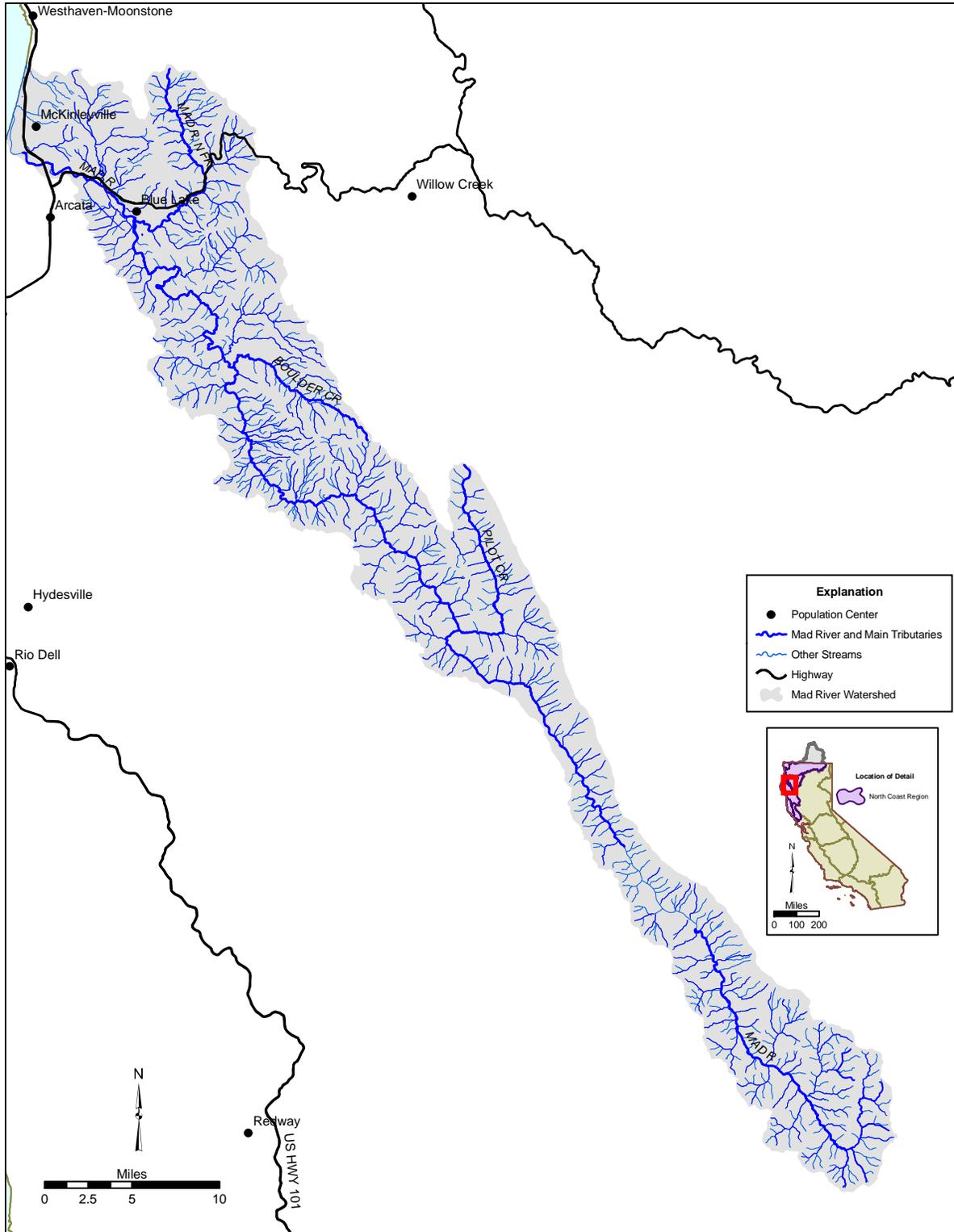


Figure 31. Mad River Watershed Map.

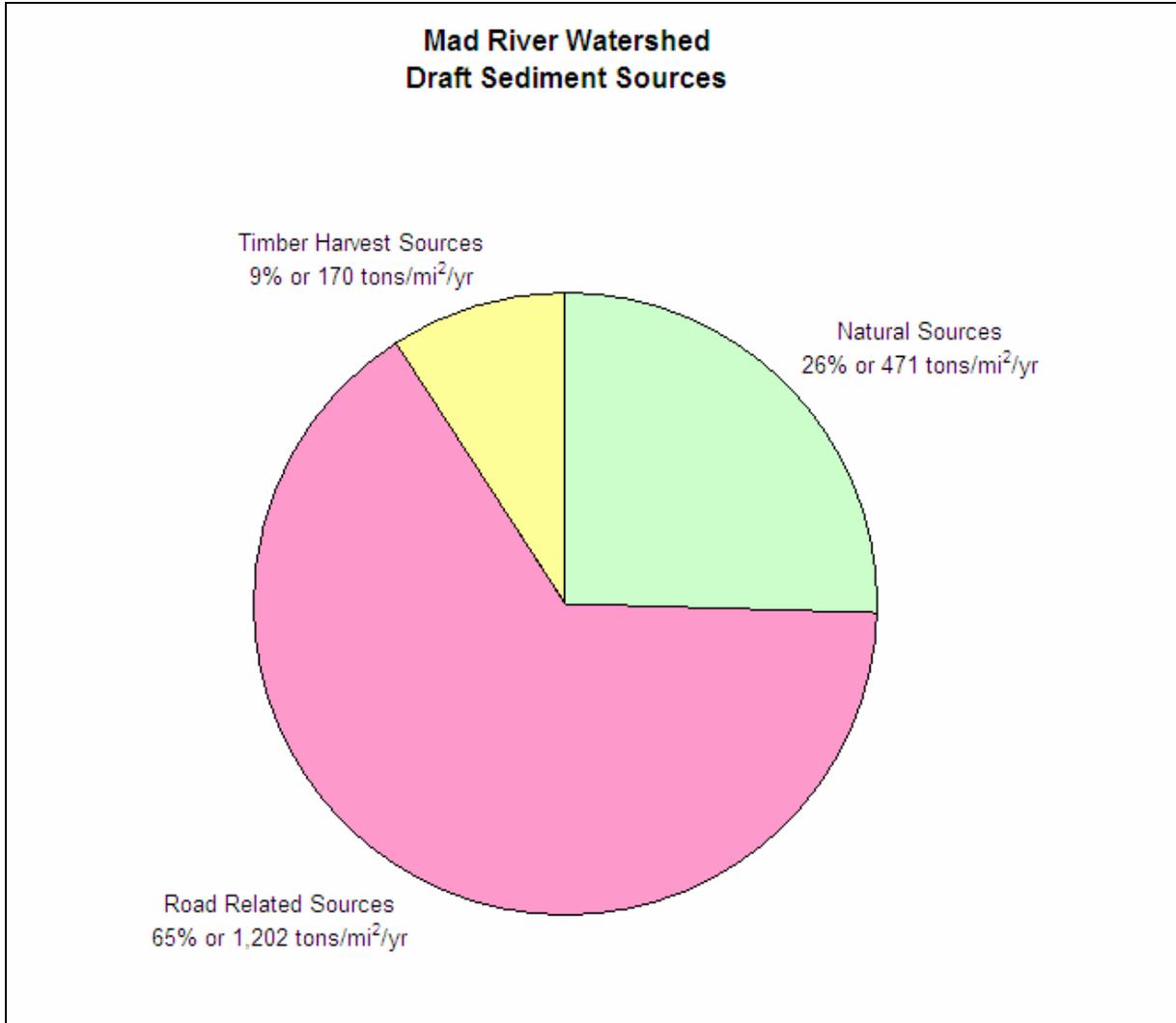


Figure 32: Mad River Watershed Draft Sediment Sources. From: Draft TMDL (U.S. EPA 2007b)

Table 27 Mad River Watershed Draft Sediment Sources			
	Sediment Source	tons/mi ² /yr *	
Natural	Landslides	349	471
	Bank Erosion	122	
Anthropogenic	Roads – Landslides	667	1,372
	Roads – Surface Erosion and Small Sources	535	
	Timber Harvest – Landslides	168	
	Timber Harvest – Surface Erosion and Small Sources	2	
	Total of All Sources	1,843	

* Sediment load estimate from 1975 to 2006. Data from: U.S. EPA 2007b.

The sediment TMDL for the Mad River is being developed by the U.S. EPA, and is currently available as a draft.

The following tasks should be undertaken in order to control human-caused excess sediment in the Mad River watershed. These tasks are estimates of the work that needs to be done, and are based on current information and staff's best professional judgement. However, until the sediment source analysis and the TMDL are completed and finalized, it is unknown if additional tasks might be needed or if the task priorities need to be rearranged.

1	Conduct stakeholder outreach and education assisted by the Redwood Community Action Agency
2	Coordinate sediment control efforts with Blue Lake Rancheria.
3	Fund sediment waste discharge control projects.
4	Continue to regulate instream gravel mining operations.
5	Identify most egregious excess sediment sources.
6	Use progressive enforcement or develop WDRs or conditional waivers.
7	Work with Humboldt County and City of McKinleyville to reduce storm water pollution.
8	Work with Pacific Lumber Company to ensure compliance with the Regional Excess Sediment Prohibition.
9	Implement WDRs or a conditional waiver for the USFS for non-timber harvest activities.
10	Develop and implement ownership-wide WDRs for Green Diamond.
11	Develop and implement WDRs for county roads for Humboldt and Trinity counties.
12	Work with Caltrans on Hwys 299, 36, and 101.

Mad River Task 1

Conduct Stakeholder Outreach and Education Assisted by the Redwood Community Action Agency

Background Natural Resources Services (NRS), a division of Redwood Community Action Agency, is a non-profit organization dedicated to sustainable development, protection, and restoration of natural resources in northern California. Since 1982, NRS has designed and implemented several hundred fisheries, riparian, and wetland restoration projects in the north coast region, in addition to providing a variety of resource analyses and management services to private landowners, businesses, and public agencies.

NRS is currently funded to first conduct a Watershed Assessment for the Mad River and then to develop a Mad River Watershed Management Plan. The watershed assessment will further build on the sediment source analyses conducted by U.S. EPA along with their consultants Tetra Tech, Graham Mathews Associates, and others. The Watershed Assessment will assess the impact on excessive sediment on the aquatic and riparian habitats and associated species, as well as to identify and evaluate past and existing programs and measures being employed to reduce sediment delivery to watercourses. The results will be conveyed to the Stakeholder Advisory Group (SAG, comprised of the large to medium scale landowners) and the Public Advisory Group (PAG, comprised of additional small landowners and other interested stakeholders).

The Mad River Watershed Management Plan will be created with participation from the SAG and PAG to inventory current measures and develop economically and ecologically feasible programs, measures, and practices to reduce excessive sediment in the watershed that are integrated with, and reduce duplication of, existing programs. The Mad River Watershed Management Plan will describe specific sediment reduction measures and identify the responsible parties to implement them. The Watershed Management Plan will also include a schedule for implementation and monitoring of the plan's implementation. The final funded components of the NRS-coordinated Mad River watershed project will include (a) the creation of a database to compile and disseminate the information gathered from multiple sources, and (b) public/ stakeholder outreach efforts to present the findings of the Watershed Assessment, (c) coordinate public/stakeholder working groups to develop the Watershed Management Plan (see task 1.1), and the coordination of the Mad River symposium in which the results of the assessment and management plan will be presented.

The Mad River Watershed Assessment and Management Plans are intended to inform TMDL Implementation Plan that the Water Board will be developing from the Federal TMDL effort. The Mad River Watershed Management Plan will provide a set of stakeholder-developed programs, measures, and practices to control excess sediment that the Water Board can fold into their Implementation Plan.

Task 1.1 NRS will conduct community outreach and education primarily through the stakeholder advisory groups and public meetings, culminating in the development of the Mad River Watershed Assessment and Mad River Management Plans. The SAG and PAG advisory groups will be formed based upon the relative impact stakeholder holdings exert upon the Mad River watershed. This tiered approach is intended to inform the assessment and plan formulation from a practical and economically just standpoint. Finally, NRS will implement the Mad River Symposium to present the findings of the Watershed Assessment and the long-term goals of the Mad River Watershed Management Plan and to kick-off plan implementation.

Task 1.2 Work with the Natural Resources Services to coordinate excess sediment control efforts identified in the State's Work Plan, the Mad River Watershed Management Plan, and the State's anticipated Mad River TMDL Implementation Plan . Meet with the Natural Resources Services to discuss the Regional Water Board's excess sediment control efforts and solicit information on their activities (Regional Task 2).

Task 1.3 Coordinate future workshop and outreach efforts (Regional Task 2) with Natural Resources Services. Ask for their support, endorsement, and promotion of the workshops. Ask the Natural Resources Services to present material at the workshops.

Mad River Task 2 Coordinate Sediment Control Efforts with Blue Lake Rancheria

Background Blue Lake Rancheria owns 42 acres of land in Blue Lake.

Task Coordinate excess sediment control efforts with the Blue Lake Rancheria. Offer to share resources, data, and techniques.

Mad River Task 3 Fund Excess Sediment Control Projects

Background The Regional Water Board is providing approximately \$355,000 to Natural Resources Services, a division of the Redwood Community Action Agency, to conduct an initial Watershed Assessment and develop the Mad River Watershed Management Plan as previously described.

Task Continue to fund and seek additional funding for excess sediment control projects in the Mad River watershed through available nonpoint source and watershed protection grants and loans as appropriate (Regional Task 21).

Mad River Task 4 Continue to Regulate Instream Gravel Mining Operations

Background Gravel mining operations are located at least ten sites along the lower mainstem Mad River. In 2000, approximately 150,000 yd³ of instream sand and gravel were extracted.

Task Continue to permit gravel mining operations through 401 Certifications. Ensure mining activities are conducted in a manner that (1) prevents and reduces excess sediment discharges; (2) protects and restores the shapes, slopes, and planforms of stream channels that are necessary to balance sediment loads and water discharges in streams and to prevent excessive erosion or deposition of sediment; (3) protects and restores the connectivity between streams and their floodplains; and (4) protects and restores riparian vegetation.

Mad River Task 5 Identify Most Egregious Excess Sediment Sources

Task Perform additional field reconnaissance, in compliment sediment sources analyses conducted by the EPA and its consultants (Tetra Tech and Graham Mathews Associates) to establish the sediment TMDL, in order to refine the Water Boards understanding of the most egregious sources of excess sediment and highest

priority sites using aerial and road-based reconnaissance, complaints, staff observations, general knowledge, and other information. Augment the EPA's sediment identification efforts in order to further refine the Water Boards understanding of the most turbid streams following storms using additional aerial and road-based reconnaissance (see Regional Task 23 for more information).

Mad River Task 6

Use Progressive Enforcement or Develop and Implement WDRs or Conditional Waivers

Task The Natural Resources Services (NRS) division of Redwood Community Action Agency intends to assist landowners with sediment reduction and water quality improvement efforts. The Advisory Groups formed in the initial stages of the Watershed Management Plan are collaborating to improve conditions multilaterally throughout the watershed. The assessment and monitoring tools created as a result of this Plan will provide a measurable record of landowner efforts to meet water quality improvement goals. NRS expects this approach to increase feasibility and cooperation for stakeholders of many economic and ownership levels and to avoid or minimize the need for the types of regulatory enforcement actions described below.

For excess sediment sites identified through reconnaissance, complaints, or from other information, do one or more of the following:

- Deploy the storm and sediment response team to investigate and take appropriate corrective actions.
- Use progressive enforcement for violations of the Regional Excess Sediment Prohibition (Regional Task 3).
- Use progressive enforcement for violations of the Stream and Wetlands System Protection Policy (Regional Task 6).
- Require ROWDs and develop individual WDRs or conditional waivers (Regional Task 11).

In the Mad River watershed, this task, in tandem with Mad River Task 5 above, is expected to be especially useful for controlling excess sediment from the private ranches, rural residences, and smaller timber operations in the watershed. These private holdings are primarily located in the lower and middle reaches of the watershed. Private in-holdings are also found along the upper mainstem Mad River, where they are surrounded by the Six Rivers National Forest.

Mad River Task 7

Work with Humboldt County and City of McKinleyville to Reduce Storm Water Pollution

Task Work with Humboldt County and the City of McKinleyville on improving the storm water requirements for rural residential developments.

Task Continue to use the municipal storm water program to control excess sediment from the City of McKinleyville (Regional Task 19).

Mad River Task 8

Work with Pacific Lumber Company to Ensure Compliance with the Regional Excess Sediment Prohibition

Task Work with Pacific Lumber Company to ensure they are on the path toward compliance with the Regional Excess Sediment Prohibition once it is adopted and in effect. This task will likely include making contact with the landowner or the landowner's representative, educating them on their responsibilities to control excess sediment, coming to agreements on time schedules and excess sediment control strategies, providing technical guidance, regularly checking on progress, and other cooperative efforts. Should Pacific Lumber Company choose not to comply with the Regional Excess Sediment Prohibition, consider taking progressive enforcement actions as described in Regional Task 3.

Mad River Task 9

Implement WDRs or a Conditional Waiver for the USFS for Non-Timber Harvest Activities

Background Approximately 30% of the entire Mad River watershed falls within the boundaries of the Six Rivers National Forest. Most of the USFS land is located in the upper and middle portions of the watershed.

Task Following their development and adoption (as described in Regional Task 17), implement the WDRs or the conditional waiver for the USFS to control excess sediment and other water quality concerns in the Mad River watershed.

Mad River Task 10

Develop and Implement Ownership-wide WDRs for Green Diamond

Background Green Diamond Resources Company is the largest private landowner in the Mad River watershed, with approximately 42% of the private land.

Task Require a ROWD and develop, adopt, and implement ownership-wide WDRs for Green Diamond Resources Company to address excess sediment and other water quality concerns on their ownership in the Mad River watershed (see Regional Task 11 for more information). The WDRs may be applicable to all of Green Diamond's property or just to their property within Mad River watershed.

Mad River Task 11

Develop and Implement WDRs for County Roads in Humboldt and Trinity Counties

Task Develop, adopt, and implement WDRs for Humboldt and Trinity counties to control excess sediment from county roads (Regional Task 13).

Mad River Task 12

Work with Caltrans on Highways 299, 36, and 101.

Task Work with Caltrans to identify, prioritize, control, and monitor existing excess sediment discharges from Highway 299, Highway 36, Highway 101, and other state highways in the Mad River watershed. Work with Caltrans to ensure their management practices prevent future discharges. Do this by reviewing the Caltrans Storm Water Program and improving it as needed (Regional Task 14).