## **EWP Repair Work**

## Calabasas Fire

The Calabasas Fire, started by an arcing power line on October 21, 1996, severely burned nearly 13,000 acres in the Santa Monica Mountains near the City of Calabasas. Within hours the fire had spread to the Pacific Coast Highway and the City of Malibu.

## A Second Wave of Disaster Averted

As bad as the fire was, the after effects set the scene for mudslides and debris flows that could choke channels during heavy winter rains, causing flooding and endangering residents and private property. Limbs and brush from dead and dying vegetation threatened to find their way into drainageways, and the loss of canopy and ground cover greatly increased the hazard of erosion. According to some estimates, four or five times the usual water flow and two or three times the amount of debris and sediment would fill the channels during winter storms.

Responding to local community concerns, USDA initiated the Emergency Watershed Protection Program (EWP). The request came from the Resource Conservation District (RCD) of the Santa Monica Mountains, and the Natural Resources Conservation Service (NRCS), immediately went to work, coordinating with local agencies, identifying areas of concern, and developing treatment measures to mitigate expected damage from flooding and debris flows.

Crews developed damage survey reports (DSRs) for the City of Malibu to protect 38 homes along Malibu road. Over \$20,000 was provided through EWP for work along seven drainageways. The work included clearing vegetation in drainageways upstream from the houses, and placing temporary sandbags and concrete K-rails to direct debris and sediment away from the homes. Crews from the California Conservation Corps and participating public works departments assisted with this emergency operation.



The Calabasas fire, near Malibu, destroyed the soilholding vegetation on slopes, creating severe hazards of erosion and debris flow. With winter approaching, residents in burned areas were concerned about the increased potential for mudslides and flooding.

Working with the City of Calabasas, NRCS and the RCD developed one DSR to protect several businesses along Virgenes Road. Over \$8,000 was provided through EWP to clear vegetation from channels to keep road culverts free of debris and sediment flows. Los Angeles County Youth Authority crews provided the labor for the channel clearing.

Shown below, crews in Malibu placed more than 2,000 sand bags and 500 feet of K-rails to deflect water away from roads and homes. The protective barriers channeled the water to culverts that empty into the nearby ocean.





Local residents were concerned about this culvert in the Malibu Creek watershed in Calabasas (shown left). Debris washed down the channel during heavy rains would pile against the grating and quickly clog the opening. To prevent this, EWP crews cleared brush and debris from about 1,500 feet along the channel (top right). The debris was then chopped up (bottom right) and deposited on the channel banks.

## **Sponsors and Project Eligibility**

The City of Malibu, the City of Calabasas, and the RCD of the Santa Monica Mountains served as the sponsors for the work.

EWP was instituted by Congress to remove imminent threats to life and property in the wake of natural disasters. The program is administered through the Natural Resources Conservation Service, an agency of the U.S. Department of Agriculture. Local sponsors are responsible for providing 25 percent cost share and obtaining all necessary land rights and permits.

Eligible projects must meet economic, engineering, and environmental criteria. The program does not replace roads and bridges, nor does it repair watershed damage threatening a single individual.

The RCD of the Santa Monica Mountains can provide additional information. If you have questions about possible projects, contact Kathleen Bullard, RCD Executive Officer, at (310) 455-1030 or call Stephen Jewett, NRCS district conservationist, at (805) 386-4489.





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