



# Flood Repair Work

United States  
Department of  
Agriculture

Placer County

Natural  
Resources  
Conservation  
Service

Warm temperatures and rain doubled up during New Year's week to usher in a dubious beginning to 1997 across much of the northwest. The combination caused intense flooding. In California alone, damage has run to the billions of dollars and the floods have taken at least six lives.

## A Second Wave of Disaster

As bad as it was, the flooding rearranged the landscape in a way that sets the scene for even more flooding and damage. In the Sierra, saturated, failing streambanks tumbled into waterways with trees and soil in tow. Where water ran freely, the logs and debris pounded bridges, homes, and anything in its path. Where constrictions snagged the debris, massive channel clogging tangles were created.



Numerous bridges along the Truckee River trapped floating debris, leading to massive log jams and severe flooding. Placer County served as a sponsor so that the EWP program could provide necessary resources to remove the hazardous log jams.

## Two Placer County Problems

Log jams in the Truckee River threatened the numerous private bridges that connected landowners with their homes, ultimately destroying many of them. At Olympic Village, the raging south fork of Squaw Creek hit a jam and deposited 3500 cubic yards (about 300 dump trucks full) of gravel, boulders, logs and debris into just 500 feet of stream channel, piling the material up to six feet deep into homes and condominiums. Over \$1.5 million of direct damages resulted from these two situations alone.



Many of the foot bridges along the Truckee River did not survive the raging flood waters.

## Assistance for Damaged Watersheds

In Placer County, engineering and design expertise and over \$100,000 were provided through the Emergency Watershed Protection (EWP) program to clear the log jams on the Truckee River and to remove sediment and debris from the South Fork of Squaw Creek.

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.



Flood waters piled debris and sediment into houses and condominiums near South Fork Squaw Creek. Debris buried the entire first floor of some buildings.

## Sponsors and Project Eligibility

Placer County served as a sponsor for removing the log jams from the Truckee River, while the Squaw Valley County Water District played this role for aiding the overwhelmed Squaw Creek area. All EWP projects require local sponsors to provide a 25 percent cost share, obtain needed permits and land rights, and undertake future maintenance, if applicable.

Eligible projects must meet economic, engineering and environmental criteria. In floods, EWP applies to smaller drainage areas (less than 400 square miles) while the Army Corps of Engineers is primarily responsible for larger systems. The program does not replace roads and bridges, nor does it repair watershed damage threatening a single individual.



*South Fork Squaw Creek jumped its banks and redirected itself through these condominiums, leaving behind massive piles of sediment and debris when it departed. The Squaw Valley County Water District served as sponsor for EWP cleanup and repairs.*



*Shown above, sediment removal and rechannelization work along the South Fork Squaw Creek. Note the original elevation of debris on the right side of the creek. Shown below, the creek after emergency work to divert water flow back to the existing channel. The debris piled up to the top of the deck rail on the left, about 8 feet above the top bank of the creek.*



Communities with questions about possible projects should call their local NRCS office, in the telephone directory under federal government, or can contact Cliff Heitz in Auburn at 916-823-6830 or the NRCS state office in Davis at 916-757-8200.