

Missionary Ridge Wildfire near Durango, Colorado



The Missionary Ridge Wildfire of 2002 burned over 70,000 acres near Durango, Colorado. The fire resulted in considerable risk to public health, safety and welfare due to increased runoff and sediment and debris flow potential just upstream of the Lemon Reservoir dam and spillway.

To protect against debris flows, heavy sediment loading, and potentially, failure, the Florida Water Conservancy District (FWCD) hired WWE to design rehabilitation measures. The rehabilitation was designed with an unprecedented quantity and complexity of measures and monitoring including log erosion barriers, check dams, detention basins, debris racks, revegetation, a bypass channel and FWCD staff training.

When 2.47 inches of rain fell over 13 hours on September 9, 2003, the runoff, sediment and debris from the Knight Canyon watershed were substantially less than from other comparably sized, nearby watersheds that had not received such extensive treatment. Five debris racks were installed along major drainage paths, and as of October 2003, had trapped nearly 200 cubic yards of debris. While typical sediment yield rates following wildfires range from 9 to 49 tons/acre/year, the soil loss rates for the Knight drainage was significantly lower, ranging from 7 to 14 tons/acre/year.

Denver Office

2490 W. 26th Ave., Suite 100A
Denver, CO 80211
303-480-1700
Fax: 303-480-1020
Email: wwe@wrightwater.com

Glenwood Office

818 Colorado Ave., Suite 307
P.O. Box 219
Glenwood Springs, CO 81602
970-945-7755
Fax: 970-945-9210
Email: gws@wrightwater.com

Durango Office

1666 N. Main Ave., Suite C
Durango, CO 81301
970-259-7411
Fax: 970-259-8758
Email: dgo@wrightwater.com