



## International Erosion Control Association

IECA Photo Gallery

# IECA Members Team Up To Tackle Colorado' Hayman Wildfire Erosion Control

The summer of 2002 will go down as Colorado's worst year ever for wildfires. The largest of these fires was the Hayman fire located in the mountains southwest of Denver, consumed 137,760 acres before it was contained and eventually extinguished. The environmental damage does not end when the flames are out. Steep, unprotected slopes have opened the door to significant erosion of granitic soils that threaten world-class trout fisheries, property and one of Denver's major water supplies, the South Platte River.

## IECA Member Contributions

Under direction of the Burned Area Reclamation Team, a team of IECA members were contracted to provide highly specialized erosion control services for 1,500 high priority acres. Using one of the world's most powerful heavy lifting helicopters, the Erickson Air-Crane helicopter, the project called for the aerial application of wood fiber hydromulch, a polyacrylamide binder and an annual cereal grain. Using a series of 5 Finn hydromulchers, a slurry was prepared and loaded into the helicopter which dropped a load of 2,000 gallons each time it took off. A GPS guidance system was used to help the pilots position each slurry drop.

### IECA members involved with the project

**Robert Arello, Jr.**, N. Oxford, Massachusetts, President of HydroGrass Technologies, supplier of the hydromulching equipment, labor and project administrator.

**William Mast**, Richland, Washington, President of Wildlands, Inc., overall ground operations and project administration.

**John Dawson**, Courtenay, British Columbia, Canada - Pacific Coast Erosion Control, past IECA Awards of Environmental Excellence - Technological Advancement Award winner (for heliseeding), ground crew chief.

**Bill Iwinski**, Roswell, Georgia - Owner, Applied Polymer Systems, supplier of the polyacrylamide.

**Earl Dahlin**, Renton, Washington and Doug Graham, Littleton, Colorado - Fiber Marketing International, distributor of Eco-Fibre hydromulch.

**Joe Hargitt**, New Westminster, British Columbia, Canada - Project Manager, Canadian Forest Products - manufacturer of EcoFibre hydromulch.

Other IECA member companies involved include **Revex/Bowman Construction Supply** (Finn distributor), **Finn Corporation** (Finn manufacturer), and **Rain for Rent** (pump supplier).

## Photos of the post fire erosion control efforts

Click on any of the photos to see a larger image.

*Photos by IECA Executive Director, Ben Northcutt*



Member **Bob Arello** (left), HydroGrass Technologies, and past IECA award winner, **John Dawson** (right), Pacific Coast Erosion Control, stand in front of 1,400 pound bales of EcoFibre hydromulch.



The Erickson Air-Crane helicopter lands at the staging area. Note 10,000 gallon white holding tank from which the 2,000 gallon slurry tank on the helicopter is filled from an 8 inch pump. Five hydromulchers feed the holding tank.



Ground crews load hydromulch into the machines where it is mixed with water, polyacrylamide binder and an annual cereal grain.



A series of five hydromulchers is required to keep a steady supply of slurry flowing into the white, 10,000 gallon holding tank.



The holding tank is fed by hoses from each of the five Finn hydromulchers. A small pump on the holding tank recirculates the slurry to prevent clogging and separation. The blue, 8-inch pump fills the 2,000 gallon helicopter slurry tank in about 60 seconds.



Two members of the ground crew fill the belly of the Erickson Air-Crane with slurry while the third member pumps just enough helicopter fuel for one load, which reduces fuel weight and maximizes slurry capacity.



A back up 8-inch pump stands by if needed to avoid any lost production time.



The helicopter heads to the drop zone, carrying a combined payload weight (slurry tank and 2,000 gallons of slurry) of approximately 20,000 pounds. The cycle time for the helicopter from this staging area is about 4 ½ minutes and more than 200,000 gallons (100 loads) can be dropped in one day.



Typical burned landscape from the Hayman fire.



Several miles north of the Hayman fire, the High Meadows fire burned 11,000 acres near the town of Pine in 2000. This photo shows the benefits of one commonly used post-fire erosion control practice, log barriers. When installed properly, soil is pushed up along the uphill side of the log to prevent undercutting by surface runoff. Revegetation results after nearly 3 growing seasons.



Another view of log barriers used at the High Meadows fire.

## Vegetation returns



After seven growing seasons, the ground is well covered by grasses and other herbaceous vegetation in areas burned by the 1996 Buffalo Creek fire, also located a few miles north of the Hayman fire and south of the High Meadows fire

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