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## *Land, Water and People - Hoping the green stabilizes the black*

*Mike Blakeman, Public Affairs Specialist, Rio Grande National Forest*

"We had a report of a large debris flow in the burn area along Lake Fork Creek," Dan told me. "If you are out and about this weekend, maybe you can hike up the trail and put some eyes on it."

I was planning on doing a hike one day of the weekend anyway, so I figured why not the lower Lake Fork Trail – I hadn't been up that trail in 20 years. There were supposed to be thunderstorms on Saturday and it was going to be nice on Sunday, so I figured I would do chores Saturday and hike Sunday.

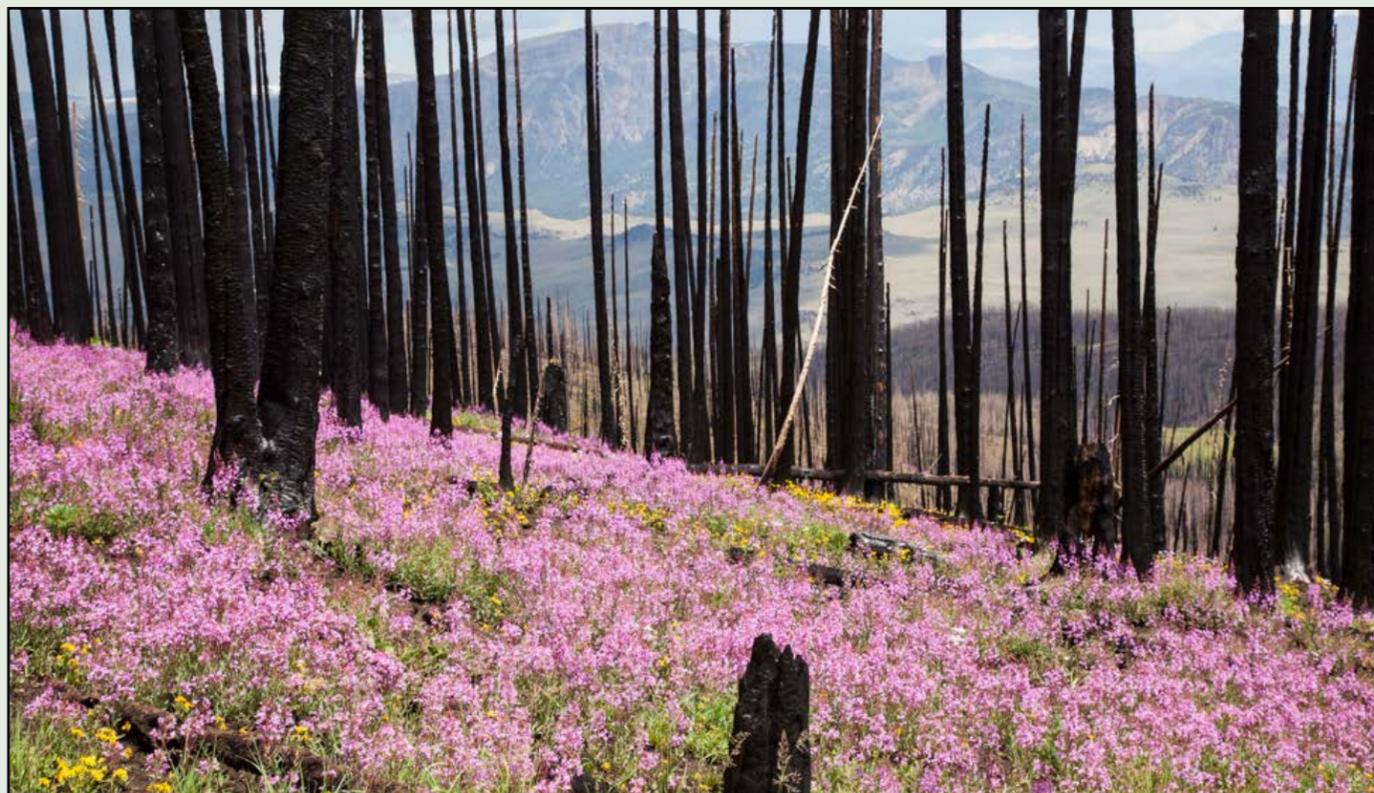
Halfway through Saturday, it was obvious the thunderstorms weren't going to materialize as predicted and the forecast now called for gusty winds on Sunday, so I made the decision to change plans and headed to the trail after lunch. The last thing I wanted to do is hike among black trees on a windy day.

The lower trailhead along Lake Fork Creek is located at the pullout along Highway 160 about 1 ½ miles before the turn-off to Big Meadows Campground. The creek was flowing near peak levels and had a brown tinge to it. I hiked for about ½ mile before seeing the first black spots along the trail from the West Fork Fire.

About one mile in, the trail dropped down next to the creek. A large, rock field spread out on the other side with 60-70 year old green trees growing up among the rocks. It appeared to be the result of an old landslide. Certainly, this wasn't the debris flow being reported.

The trail soon entered a stand of charred trees. I stopped and looked over the area making sure the trees looked stable and there were no "widow-makers" in the tops. I proceeded cautiously, scanning the bases and the tops of the burned trees happy that the wind was almost non-existent.

*More....*



The ground was covered with new life popping up everywhere. Grasses, sedges, fireweed, cow parsnip, geraniums, and a yellow legume-like looking flower for which I didn't know the name. The brilliant spring, green color of the plants contrasted sharply and beautifully with the bare soil and black trees.

The trail soon ascended into a clump of burned aspen. All the trees had blackened bases and were dead, but they were surrounded by yellow flowers and one-foot tall aspen sprouts. As I looked up and across the creek, I spotted a large debris flow that poured down a deep v-shaped drainage. Large cobbles and rocks spilled out of the base of the drainage and onto an alluvial fan next to the creek. A few rocks and a small boulder poked up from the creek.

Debris flows are common and expected after hot wildland fires torch off the ground vegetation that helps hold the soil in place. The material in this debris flow appeared to be coming mostly from downcutting and widening of the drainage and not necessarily from the side slopes. The downcutting occurs during intense rainstorms as rainwater rushes into the drainages across the bare hillsides. This quick runoff is slowed and downcutting stops as more plants colonize the slopes of the burned area.

There didn't appear to be any immediate danger of the debris flow blocking the creek, but another high intensity rainstorm could send enough cobbles and rocks down to create a small dam. I wouldn't expect any big problems at this location, but nature has a way of making people who make predictions look foolish.

The hillside around the v-shaped drainage appeared to have burned hot. The trees looked like black toothpicks. According to our burn severity maps, much of the area burned at a high severity, which meant even plant roots were cooked. But, less than one year later, about 50 percent of the hillside was covered with green. It looked a lot better than most of the slopes in the Million Fire burned area after the first year. Keep your fingers crossed for the natural restoration process to stay on its current fast track.

*Mike Blakeman is the public affairs officer for the San Luis Valley Public Lands Center. He spends much of his free time scrambling around the mountains with a camera in his hand.  
Photos courtesy of Mike Blakeman*

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