

Emergency Watershed Protection Program:

Lyon Gulch Erosion Protection Project



More than 500 acres in the Lyon Gulch area, west of Missoula, burned during the Black Mountain Fire in August 2003.

The Black Mountain Fire burned approximately 75 percent of the Lyon Gulch drainage area, an area with slopes from 45 to 70 percent. Much of the burn severity in the area ranged from moderate to high, leaving the area void of vegetation that would normally slow water and debris.

According to damage assessments conducted by the USDA Natural Resources Conservation Service (NRCS), several homes, culverts, and access roads in the lower Lyon Gulch were at significant risk from flooding and debris flows. This situation made private land in the area eligible for assistance through the Emergency Watershed Protection (EWP) program.



Construction of conservation practices to protect homes in the Lyon Gulch area began the week of May 3, 2004, and was finished on June 22, 2004. Several roads were protected to prevent them from washing out during debris flow events, ensuring that homeowners are able to reach emergency services if necessary. Concrete barriers were also installed around homes.

Prior to construction, 150 acres of private land were seeded to slender wheatgrass, a native grass seed.

NRCS provided technical assistance to assess the area and develop a plan for needed conservation practices. NRCS provided 75 percent of the funding through EWP; 25 percent was covered by local sponsors, including the Missoula Conservation District and Cedar Ridge – Lyon Gulch landowners.



EWP was created by Congress to respond to emergencies caused by natural disasters. It is designed to help people reduce imminent hazards to life and property caused by fire or other natural disasters.



Area burned in the Black Mountain Fire.



The same area has been seeded with slender wheatgrass, dead trees have been harvested, and logs have been placed in the draw to slow water movement.



An NRCS employee surveys an area burned in the Black Mountain Fire.



The private roads and culverts were protected and armored to allow more water and debris to pass through and over the road during high flow events.



Concrete barriers have been placed on the hill above this home to divert potential water and debris flows.



The outlet areas of the culverts were armored so that the roads would not erode. The areas disturbed have been seeded with slender wheatgrass.