

FLOODSEPTEMBER2013

Unprecedented sustained heavy rains across Larimer, Boulder and Gilpin counties in September 2013 caused significant damage to NFS lands on the Arapaho and Roosevelt National Forests and Pawnee National Grassland (ARP).



Above: Access to Forest Road 128 from Larimer County Road 43 on the Canyon Lakes Ranger District

FLOOD DAMAGE 2013 FACTS

■ The flood damaged a total of:

- 232 roads (382 miles)
- 70 trails (236 miles)
- 4 bridges
- 42 facilities

■ The most heavily affected area is concentrated on 230,000 acres of National Forest System (NFS) lands which are interwoven with 144,000 acres of private lands.

■ Many private landowners use NFS roads to access their land.

■ Damage will take years to address.

► The ARP completed a rapid assessment of damage to infrastructure and facilities in October. Approximately 463,000 acres were surveyed by air due to damaged or destroyed roads. This assessment did not include damage to other resources (e.g. fisheries, range, etc.). We have gradually gained more access to NFS lands and found that the damage is far greater to roads, trails and resources than we originally thought and will likely be more costly to repair. For example, over 250 debris slides exist in the North Saint Vrain area alone. Piles of debris are deposited in streams, culverts and lands throughout the National Forest. These debris flows and piles may contain hazardous materials. Many roads, trail, and recreation areas are unrecognizable because the original ground cover has washed away to bedrock. As we continue to evaluate damage, we will determine what infrastructure and what facilities we will repair, rehabilitate or decommission. It is unlikely that all areas, roads and opportunities will be returned to pre-flood conditions.

► Because road access is still limited in some areas, fire suppression assets need to be reconfigured in order to respond to wildfires that could threaten values at risk located in inaccessible areas. The Forest is exploring the potential options for adding a helicopter to the make-up of our local assets which are now solely ground based.

► Emergency Relief for Federally Owned Roads (ERFO) is limited to some roads and the only post-flood funding mechanism available to address damage. There is no emergency funding similar to post-fire Burned Area Emergency Response (BAER) funding to assist in addressing damage to resources, facilities or roads not covered by ERFO. Costs for repair, rehabilitation, decommission work and reconfiguring fire response assets, not including ERFO funded work, are expected to exceed \$40 million over the next three to five years.

► Annual run-off and snow melt is expected to result in additional damage over the next one to three years.

► As major roads open we are getting more requests to fix roads and assist with private land access issues. Our ability to repair roads this winter is limited because of their location and their native surface (dirt) condition. Already this fall some of the road repair work has had to shift to lower elevations because the ground is frozen.

► Many damaged roads have been altered by private landowners and counties to provide emergency access to private land. This work may not have been done to the standard needed and in many cases has created more damage.



Above: The gate to Lefthand Off-Highway Vehicle area on the Boulder Ranger District

