

2004 Post-fire Activities

by Dan Seifert, Resource Planner

Helena National Forest personnel have accomplished a great deal of work in areas burned in the 2003 Snow Talon and Moose-Wasson fires. Since the fires, approximately \$600,000 has been spent on emergency fire rehabilitation and \$500,000 on other post-fire restoration. Work has focused on providing for visitor safety within the fire areas, addressing post-fire natural resource needs, preparing plans for commercial salvage of burned timber, and monitoring post-fire recovery.

The removal of vegetation by a large fire generally results in increased stream flows. Vegetation is no longer present in such fire areas to soak up precipitation and runoff. Snowbank Lake campground and much of the Copper Creek drainage within the Snow Talon fire perimeter were closed to camping in 2004 to provide for visitor safety in the event of post-fire floods and debris flows. The intent of this closure was to prevent campers and recreational users from being caught in floods or trapped behind debris flows or road wash-outs. The Helena National Forest worked with numerous State and local agencies to devise flood warning and evacuation plans.

Several warnings and one evacuation were issued in summer 2004. Luckily, no extreme flood events occurred. Summer thunderstorms in 2004 resulted in small erosional events that deposited rock, sediment, and debris on the Copper Creek Road. Runoff from these thunderstorms created some new channels on hillslopes above Copper Creek Road and created some morphological changes in Snowbank Creek. Ditches and roads were cleared using heavy equipment and culverts were installed to allow one newly formed channel to cross under the road surface. Flood potential will remain elevated until adequate vegetation is reestablished in the fire area. Based on snowpack accumulations this winter, the Helena Forest will assess 2005 flood potential and re-evaluate needs for any closures and/or camping restrictions. The Forest and State and local agencies will also work to devise a flood warning and evacuation plan for 2005.

Within the fire areas, trail crews cleared downed logs from 4 miles of trails and replaced several burned trail puncheons and waterbars. It is anticipated that burned timber will continue to fall across trails each year due to wind and decay in the root structures of these dead trees. Keeping trails cleared of downfall will be an ongoing task in the fire areas.

In anticipation of increased runoff in the fire area and to prevent damage to roads and streams, a variety of road-related construction work has been completed, with more planned for the Snow Talon fire area. Work completed to date: 13 new culverts installed; 50 culverts replaced and upgraded with inlet and outlet protection; 9 culverts replaced with larger culverts and overflow structures; 700 feet of conveyor diversion dike installed in five locations to divert potential sediment away from Copper Creek; 2 temporary bridges installed; spot aggregate resurfacing of the road at a number of culvert locations; 16 culverts and associated road fill removed along a closed road; 1 culvert replaced with an arch pipe; numerous waterbars installed; and removal of the bridge crossing Copper Creek that burned in the Snow Talon fire, pulling back the abutments. A number of additional road improvements are proposed for implementation and should be completed in 2005 and 2006.

Some trees were only partially burned in the 2003 fires and are still alive. These trees are often stressed and are highly susceptible to insect infestations by a variety of bark beetles. To prevent insects from killing these few remaining trees, pheromone capsules that repel bark beetles were placed in live trees near Indian Meadows Guard Station and Copper Creek Campground in early spring of 2004. No bark beetles were observed in these trees in 2004 and capsules will again be placed in 2005. Bark beetles were observed in dead trees elsewhere within the fire perimeters and may begin infesting live trees in 2005. Future beetle infestations will be very dependent on weather-related stress to trees, such as drought.

Forest personnel monitored fireline that was reclaimed in 2003 and noted that waterbars were functioning and revegetation was occurring. Additional fireline efforts included seeding with native plants and planting of willow slips. Monitoring of the firelines will be ongoing to ensure that disturbed areas fully recover.

An interdisciplinary team of Helena Forest personnel have been working on an environmental analysis to develop plans for salvaging burned timber in the Snow Talon fire area. A Draft Environmental

Impact Statement (EIS) was released in spring 2004. Public comment on the Draft EIS and additional data collection needs identified by the interdisciplinary team resulted in monitoring and data collection throughout 2004. Archaeological surveys, sensitive plant surveys, old growth surveys, wildlife use monitoring, bark beetle surveys, fisheries habitat surveys, stream monitoring, soils surveys, and general reconnaissance of areas where salvage-related activities are planned occurred throughout 2004. Information collected is being used to further develop and refine plans in support of a Final EIS. The Final EIS will provide information that will be used to decide the location and type of any salvage activities that occur.

Other resource elements monitored in the fire areas in 2004 include noxious weed spread and control, grizzly bear population monitoring through the Northern Divide Grizzly Bear Project, monitoring mountain goat populations on Red Mountain, black-backed woodpecker habitat use and nesting, winter wildlife track surveys, trailhead use, off-highway vehicle use, snowmobile use, bull trout redd counts, and core sampling of stream bed sediments in Copper Creek, and monitoring of stream flows in Copper Creek. Similar monitoring efforts are planned for 2005.

