United States Department of Agriculture **Forest Service** **Caribou-Targhee National Forest** **1405 Hollipark Drive Idaho Falls, ID 83401**

File Code: 2520-3 **Date:** August 28, 2001
Route To:

Subject: Alpine II Fire BAER Assessment

To: Regional Forester
ATTN: Jeff Bruggink

Enclosed is the assessment of the Apline II Fire for Burned Area Emergency Rehabilitation (BAER) funding. No emergency watershed situation was found on this fire. The Forest will not pursue emergency watershed rehabilitation funding.

Questions on our report should be directed to John Hamann, Forest BAER Coordinator, at (208) 557-5781 or John Lott, Forest Soil Scientist, at (208) 557-5782.

/s/ Sheryl Bainbridge for
JERRY B. REESE
Forest Supervisor

Enclosure

Alpine II Fire

Burned Area Emergency Rehabilitation Assessment Report
August 2001

Introduction

This report summarizes the findings of an initial assessment of the Alpine II Fire for Burned Area Emergency Rehabilitation (BAER) efforts. Assessment work was conducted on August 24, 2001.

The objective of the BAER process is to provide funding to initiate immediate rehabilitation of areas damaged by wildfire to minimize unacceptable damage. BAER teams have the responsibility to:

1) Assess on-the-ground conditions and describe the adverse effects of the fire on the watershed.
2) Identify and define the emergency created by the effects of the fire on the watersheds.
3) Locate any emergency flood source within the burned area.
4) Locate the potential emergency treatment measures in relation to the adverse effects of the fire on the watersheds.

In order to qualify for emergency funds, several conditions must be met:

1) A watershed emergency exists which, if not treated, poses a high probability of unacceptable watershed damage such as excessive surface erosion, debris flows and sedimentation/water quality changes.
2) Rehabilitation measures can be applied which pose a reasonable potential to mitigate the watershed emergency before anticipated damage producing storms.
3) The rehabilitation measures are environmentally and socially acceptable and are compatible with long-term restoration needs.
4) A benefit/cost ration clearly demonstrates the treatment measures are economically favorable.

Burned Area Description

The Alpine II Fire burned approximately 475 acres in the Burns Canyon 5th Code Watershed (1704010500). The fire burned in two states:

Land Status Summary (Acres)

Surface Status	Idaho	Wyoming
US Forest Service	108	25
Private	263	54
State	12	0
Bureau of Reclamation	4	9

The fire started in the NE ¼ Section 21, T3S, R46E and was first detected on August 18, 2001 in the afternoon. It burned south and east primarily on private lands until it was contained late on August 22, 2001. The majority of the fire is found in Section 22, T3S, R46E.

The fire burned on Ecological Unit 1112 (Targhee National Forest Ecological Unit Inventory, 1999) on the uplands of Forest Service land in Section 21. A small area of Forest Service land adjacent to Palisades Reservoir in Section 22 and Section 4, T36N, R118W that also burned was not mapped in the Ecological Unit Inventory. The parent material of Ecological Unit 1112—ABLA/VAGL, PAMY Huckridge-PSME/OSCH Paleborolls complex, 4 to 35 percent slopes, is local alluvium derived from sedimentary rock with loess and volcanic ash on the surface. Ecological Unit 1112 has high potential for mass movement and is highly erodible when cover is removed. No evidence of recent mass movement was noted in the field visit. Several observations of the soil at cuts in the dozer line and in recent windthrow faces did show high clay content below 20 inches. No live water was noted on the burned portion of Forest Service lands.

Fire Intensity

Fire intensity was measured and mapped according to the criteria in FSH 2509.13 Amendment 95-7, Burned Area Emergency Rehabilitation Handbook. Vantage points within the fire coupled with ground truthing were used to determine the following on USFS lands:

Unburned or low burn intensity	60-70%
Moderate burn intensity	20-30%
High burn intensity	5-10%

Observations for the remainder of the fire from the McCoy Creek Road and from hiking through the north half of Section 22 yielded similar percentages on private lands with slightly lower percentages of unburned and low intensity burn and slightly higher percentages of moderate and high burn intensity.

On Forest Service lands some of the moderate intensity burn does exhibit characteristics of high intensity burn. Much of the litter and duff layer in the moderate intensity burn was consumed. Only small areas of white ash were found and the only red ash and red soil noted were in a few small areas where the large fuels were slowly consumed. Considerable fresh Douglas fir needle casting was noted. Live roots to the surface were located in most area. Little of the canopy of Douglas fir, lodgepole pine and subalpine fir had been consumed although considerable canopy scorching occurred. No soil crusting was seen. Water repellency was observed in both burned and unburned areas. The degree of water repellency in unburned areas is mostly moderate while in burned areas it is moderate to strong. The class of repellency in unburned areas is low to medium, while in burned areas it is mostly medium.

Threats to Life and Property, Water Quality and Long-Term Soil Productivity

There were no structures or homes in the Forest Service portion of the fire. No impacts to the McCoy Creek Road from the fire on Forest Service lands (below the road on the Palisades Reservoir side) are anticipated. Only the river channel in Palisades Reservoir currently has live water. The burn on Forest Service lands below the McCoy Creek Road is not expected to contribute to flood flows to Palisades Reservoir.

Little sediment movement is expected beyond the limits of the fire on Forest Service lands. The Forest Service lands below the McCoy Creek Road are unburned or burned with low intensity. Vegetation recovery on these slopes is expected to be rapid with little sediment loss. The burn on Forest Service lands in Section 21 is a mosaic of the burn intensities listed above. No cleanly

burned, long, steep slopes were seen. Limited wind erosion and water erosion, primarily sheet and rill erosion, will occur before revegetation is effective but little sediment is expected to leave Forest Service lands here.

The amount of wind and water erosion on Forest Service lands is not expected to be enough to impact long-term soil productivity. Considerable fresh needle casting from scorched Douglas fir was noted which effectively acts as ground cover. Live roots to the surface were found in most areas. This observation coupled with low intensity burns in root sprouting mountain brush understories at all aspects and slope positions support expectations of rapid revegetation. Even in the moderate intensity burn areas where shrub recovery will be slower, considerable amounts of charred down woody materials remain to slow erosion and provide long-term nutrient release. Additional tree-fall is expected to contribute to down woody debris amounts as well. No noxious weeds were noted immediately adjacent to or within the fire perimeter.

Suppression Rehabilitation Needs

Although not part of Burned Area Emergency Rehabilitation efforts, the dozer lines and fire safety zones surrounding the Forest Service portion of the fire were also reviewed. Recommendations for rehabilitation include using a track hoe with a thumb-bucket to pull soil back on the lines and also place rock and other debris to limit erosion and unauthorized vehicle travel. Rolling dips and water bars should also be constructed at intervals based on slope steepness to effectively move water off the lines. The timing of the work should be before snowfall. The resource advisor, dozer boss and dozer operator should be commended for minimal soil displacement while removing vegetation cover.

The fire camp at the Alpine 4H Club camp was reviewed as well in coordination with the Type 1 Team Resource Leader, Roger Showman. Surfacing on the access road to the camp has been improved and bladed. Following final camp removal, additional blading was to be done around the supply area, staging area and on approximately the first 150 yards of the new road to the Alpine Timber Sale that had been broken down by fire traffic. A pasture seed mix was to be broadcast seeded on a harrowed surface following blading. Repairs and/or materials were provided for a rail fence and bent water hydrant. A lawn area at the food catering location would be evaluated after vehicle removal. The buildings that were used would be cleaned, storage items replaced and closed up. A final trash clean-up was also planned. Overall, impacts to the 4H camp were minor with good recovery of impacts expected.

Summary

No emergency watershed situation was found on the Forest Service portion of the Alpine II fire. There are no major threats to life and property, water quality or soil productivity. Therefore, the Forest does not need to pursue emergency watershed rehabilitation funding. Implementing suppression related rehabilitation before snowfall is encouraged.

/s/JOHN S. HAMANN
Soil Scientist