

Project Title: Development of indicators and monitoring approaches to define the effects of stand replacing wildfire on stream ecosystems

Project Leader: Charlie Luce

Participating Research Contacts: Jack King, Bruce Rieman, Jason Dunham

Participating Forests/Grassland Contacts: Pat Green, Nick Gerhardt (Nezperce NF); Dave Burns (Payette NF), Kathy Geier-Hayes (Boise NF).

Funds

Total Project Cost: \$141,120

Timeframe (within 2001-2005): 2001-2004

2003: \$108,644

2004-2005: (remaining costs): \$0

Progress from 2002-2003:

A crew of 10 summer seasonals completed measurements on 30 streams on the Nez Perce, Payette, and Boise National Forests. Data were collected on stream width, depth, woody debris, and substrate and on bank vegetation. The specifics of the data collected are included in the attached field protocol. The data are now being analyzed to determine if there is a systematic difference in stream characteristics as a function of time since the watershed last experienced widespread fire. In addition a reach was measured to correlate measurement techniques used for studying riparian fire effects (PI Wollrab).

Plans for 2004: (Description of work.)

In 2004 we will complete analysis of the data to understand temporal changes in stream channels with time and decide which indicators might be most indicative of changes in streams following fire.

Products and/or tech transfer expected in 2004: (Incl. Web links if you have them)

We expect to develop two products in FY 2004. One will be an analysis of the sampling properties of stream characteristics based on the 2002 data along with the detailed protocol used in 2004. A comparison of this monitoring protocol with that used in by the riparian study may be included.

In addition we expect to present preliminary findings about how stream characteristics change over time since fire. Publication is likely in FY 2005.

Issues that need discussion with the R1/R4/RMRS Steering Group?: (list)