

Identifying Spatially Explicit Reference Conditions for Forest Landscapes in the Lake Tahoe Basin, USA

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Annual Accomplishments Update (October 1, 2008-September 30, 2009)[†]:

The goal of this project is to develop a spatially explicit reconstruction of presettlement forest landscape conditions and associated fire regimes for use in ecosystem restoration planning and implementation in the Lake Tahoe Basin. Significant progress towards this goal was made this year. The project team met with Basin stakeholder agencies (USFS, CA State Parks) to discuss project objectives, initiate collaboration and information exchange, identify information needs for research permits, and the field data collection campaign. Key geospatial data layers were also acquired on vegetation cover, fuels, and historical forest cover. Old-growth forest location and plot-level data used in the Lake Tahoe watershed assessment and in other government funded studies were acquired and converted into digital geospatial data to identify specific locations for forest sampling. Dates of the last widespread fire in each sample areas were identified using fire dates from published studies and reports. A field team was assembled, field equipment was purchased and two months of field work was conducted on the west Shore of Lake Tahoe. Resampling was conducted in a series of 400 m² (67 of 100) plots established in 1999 and 2000 and in 20 of 30 old-growth forest patches sampled by Barbour for the watershed assessment. Stands were resampled for species composition, diameter and height structure, surface fuel characteristics and abundance, and canopy fuel characteristics. Detailed data on dead and downed wood on the forest floor was also collected to estimate decomposition rates to complete a reconstruction of forest conditions at the time of the last widespread fire. Nesting Goshawks in stands prevented sampling in some areas. Field data are now beginning to be converted to digital form to be integrated with the original data. A search for a post-doc to work on the project was initiated including electronic postings that reached an international audience.

Progress Report: October 1 to December 31, 2009

Progress was made on converting the record of field measurements to digital form. A search for a post-doc was conducted and an offer was made and accepted to an outstanding individual. However, the individual will not be able to work on the project full time until June 1, 2010 which is six months later than anticipated. I also expect to meet and provide an update to stakeholders in the basin in mid-March 2010.

[†] This document is an intermediate progress report, not a final report; consequently, any results should be considered preliminary and should not be cited. Please contact the principal investigators or the Tahoe SNPLMA Science Program Coordinator if you have questions.