



Climate and Energy Decision Making Sponsored Seminar

Dave Calkin

Research Forester, US Forest Service

Presenting on:

**“Risk Preferences and Probability Weighting in Wildfire Decision-Making:
A Choice Experiment of Federal Wildfire Managers”**

February 7, 2012

12 noon

(Lunch served at 11:50 am)

**129 Baker Conference Room
Department of Engineering and Public Policy**

Seminar Abstract: In the United States, wildfire events on public lands are managed for numerous competing objectives in an environment of considerable uncertainty and political pressure. Federal wildfire management policy dictates that the magnitude of suppression response should be commensurate with the values at risk, and has embraced risk management as the appropriate paradigm for wildfire management. Economic theory suggests that over repeated wildfire events, a policy of risk neutrality will generate optimal wildfire management outcomes. Nevertheless, it is well-established that human factors, including sociopolitical pressures, managerial incentives, and decision biases, have substantial influence over the ways in which individual fire events are managed. In particular, the existing incentive structure that allows substantial local socio-political influences on strategic decision making may lead fire managers to overweight protection of private property. Over time, such behavior is likely to lead to inefficient uses of fire management resources. This paper uses a choice experiment to measure attitudes among US wildfire managers toward several sources of risk and how the current decision environment may lead managers towards selection of strategies that may not align with long term objectives. It represents one of the first stated choice studies to incorporate probability weighting, which allows for nonlinear effects of probability on utility.

Speaker Bio: Dave Calkin is a Research Forester at the US Forest Service Rocky Mountain Research Station in Missoula, Montana and leader of the Wildfire Economics Team of the National Fire Decision Support Center. Dave received his PhD in economics at Oregon State University's College of Forestry. His research interests are wildfire economics, spatial risk assessment, and decision support development.

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