

## Project Update

### The interplay of AMR, suppression costs, community interaction, and organizational performance - a multi-disciplinary approach



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#### Background and Intent

This project seeks to provide scientifically grounded insight into the interaction of fire management strategies, tactics, wildland fire management costs, community interaction, and organizational performance. The project was developed and is being implemented in close partnership with the Northern Rockies Coordination Group (NRCG). The project has also enjoyed significant support from NFS Fire and Aviation Management. Data collection is proceeding along three lines: assessing costs, public communication and outreach, and capturing a more robust snapshot of outcomes.

#### 2008 Activities

##### Incident Costs

Strategies used to manage a wildfire should affect its cost; yet, there is little systematic documentation of how these two elements interact. We seek to assess the effect of AMR on federal suppression expenditures and the effect of cost containment considerations and new oversight and decision-support processes on the strategies and tactics chosen. In FY08, we developed usable models for the Stratified Cost Index models (Gebert et al. 2007) with data collected over the last two years (2006 and 2007), a necessary first step. We began in-depth interviews to supplement our information on the effect of AMR on cost and on the use of the new WFDSS system will begin in November.

##### Community Interaction

Since management flexibility rests on acceptance and expectations, the purpose of this work is to understand how agency-community interactions shape both public acceptance and manager's perceptions of what is acceptable. In FY08, we collected data concerning community outreach, team-host-community interaction and community response on-site for three fires representing the spectrum of strategies: the Gap (R-5), Cascade (R-1), and the Gunbarrel (R-2). For each, we interviewed members of the Incident Management Teams (IC, PIO, LOFR), host agencies (Supervisor, FMO, District Ranger, PAO) and community (local fire chiefs, sheriffs, emergency operations communicators, "general" public, mayors, county commissioners, etc.). Preliminary reports should be ready in January/February 2009 and will be used to develop a more extensive data collection effort in 2009.

##### Organizational Performance

To date, performance in wildland fire operations has been measured in acres burned and dollars spent. A robust assessment includes additional measures - of impact/change in ecosystems and key social relationships, and of organizational learning. In FY08, we developed and field-tested three versions of an incident activity log. These 'Key Decision Log's are founded on concepts of high reliability, organizational learning, and high performance. Incident management teams and agency hosts were asked to note decisions, decision rationale, communications, factors influencing decisions, estimate short and long-term cost consequences, and outcomes.

The KDL was available on both an internal FS website and the Wildland Fire Lessons

Learned Center site. This new process was viewed with both enthusiasm and skepticism. KDLs were submitted for 28 incidents including: Type 1, 2, 3 events, WFU, Area Command, Theater of Operations, NIMO, and NMAC on NFS (Regions 1, 2, 3, 4, 5, 6), USFWS, BIA, and unified command fires. For most of these, only one team completed a KDL, so that there are relatively few instances of a complete incident log.

## **Expected 2009 Activities**

### Costs

When the 2008 fire season has slowed down, spreadsheets will be sent to fire managers (most likely forest or area FMO's) asking them classify the fires in our database according to the type of strategy and protection strategy used on the fire. This minimizes burden to the field while identifying datasets for both types of analysis in FY09.

### Community Interaction

Our university colleague will use 2008 data to craft and implement a survey for a broader segment of the public in three fire affected communities. This will allow us to more systematically and comprehensively assess public attitudes about fire management strategies and tactics.

### Organizational Performance

A steering committee comprised of representatives from RMRS, NIMO, Forest Service Line Officer Team, NRCG, and inter-agency partners is working to incorporate feedback and lessons learned from 2008 into a revised version. This next version will be stream-lined, simplified and hosted on an interagency website (FAMWEB). Although it is not possible to integrate with WFDSS immediately, the plan is to build the KDL to

### Implementation Priorities

- Obtain clear national guidance.
- Provide hard copy, PC-based, and web entry and submission alternatives.
- Provide user's guide and pre-season training.
- Build as a stand-alone implementation extension to WFDSS's strategic documentation.
- Develop full suite of reports to provide results immediately to the field.

### Planning Priorities

- Work towards full integration with WFDSS.
- Build insights gained from KDLs into pre-season training.

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