

Fire Working Group

4/9/07

Rapid Assessment – David Calkin/Ann Black

Rapid Assessment of Values At Risk – RAVAR, is a new fire economics tool developed by Dr. Dave Calkin and Kevin Hyde (METI contractor) from the Rocky Mountain Research Station's Missoula Forestry Sciences Lab. RAVAR can identify the primary resource values threatened by ongoing large fire events. RAVAR can be directly integrated with the new FSPro model developed by Dr. Mark Finney to identify the likelihood of different resources being affected by an ongoing fire event. RAVAR and FSPro provide the foundational models for the new Wildland Fire Decision Support System (WFDSS) currently under development.

During recent fire seasons the RAVAR model has focused on identifying private resource values at risk such as residential structures and infrastructure. The structures layer is generated by reaching out to local county offices to acquire the county's spatial (GIS) parcel records. For upcoming fire seasons the RAVAR team will be reaching out to FS managers to identify priority public land resources that may be mapped and included within RAVAR analysis. To date national and regional data layers have been incorporated into the model including, but not limited to, critical infrastructure (e.g. power lines, road networks, and gas pipelines), municipal water intakes, developed public recreation facilities, sensitive wildlife habitat, and ecological data from the LANDFIRE project.

During the 2006 fire season RAVAR products were developed to support over 35 incidents. These analyses assisted agency administrators, incident managers, and fire planners in developing wildland fire suppression strategies by rapidly identifying and quantifying the significant resource values most likely to be threatened by an ongoing fire event. Additionally, RAVAR supported development of numerous Wildland Fire Situation Analyses (WFSA) and has been applied in area command settings to help prioritize large fire needs during periods of resource shortage during the 2006 fire season. The RAVAR and FSPro teams are looking to increase the level of support to large fires in the upcoming fire seasons through the WFDSS program with a fully operational system planned for the 2009 fire season.

Look at value of resources saved not cost of things lost.

Watershed Effects – Kevin Hyde

Fire Effects Planning Network – Ann Black

OIG audit noted that FS needs to look at both structure values and natural resource values.

Fire data and resource data are crosswalked to show how fire behavior affects resources (positive, neutral and negative). Always map fire opportunities and risks.

Dixie NF used the model to look at Aspen restoration.

For Region 1 – using Integrated Restoration Strategy.

Want to get to the point of knowing when the effects of suppression are worse than the effects of letting the fire burn.

Must implement this new modeling technology carefully. With short time frames for fire line decisions, don't want to overwhelm decision-maker.

Fire season 2007 – Chuck Stanich

Appropriate Management Response

How much do you do?

How to use the available tools to decide the best way to approach and fight a fire.

Can you do less and still get the results you want?

AMR using Gash Creek Case Study - Pat Garbett and Paul Chamberlin

Fire currently must be managed for either resource enhancement or protection. Can't be mixed.

Forests are currently working on protections and opportunities map. Will be the anchor point.

-- opportunities will minimize fire suppression costs

-- Should be an interdisciplinary effort

AMR Key Messages

- 1) Agencies and families of firefighters are not willing to commit to unmitigated risk.
- 2) This country will burn
- 3) Backing fires generally cause less damage than running crown fires.
- 4) Negative fire effects can be reduced by strategic introduced ignitions
- 5) Wildfire is or will solve the fuels problem
- 6) Management and large expenditures of funds are currently dictated by random lightning strikes and dysfunctional arsonists.
- 7) Natural barriers combined with limited mechanical and prescribed fire inputs offer strategic opportunities (and decision space) for management of future planned and unplanned fire events.

Currently working with other agencies to get acceptance/buy-in.

Gash Creek as an example

Arson started fire

-- In hindsight, what would have they done differently?

- 1) Develop protection focus rather than suppression focus.
- 2) Insist on good decision support tools (WFSAs, risk assessment, Fire spread models).
- 3) Work with public and local officials before fire starts to gain acceptance of different approach.
- 4) Develop strategy in concert with IMT and FMO around protection objectives.
- 5) Guard against inertia when updating WFSAs.
- 6) Employ peer review process to chart course of continued improvement.

How do we implement AMR?

Action Items

- 1) Fire effects Planning Network – contact Ann Black if you have interest in developing layer to look at resource benefits and harm.
- 2) Appropriate Management Response, Forest/Grassland maps for protection and opportunities should be developed in an interdisciplinary manner.
- 3) Network at Integrated Strategy Workshop

Attendees:

Name	Title	Location	Email@fs.fed.us
Cindy Swanson	Director WWFRP	RO	cswanson
Shane Hendrickson	Fish Bio	Lolo	shendrickson
Chuck Stanich	Acting Dep. Dir FAA	RO	cstanich
Dan Ritter	District Ranger	Stevensville	dritter
Steve Shelly	Reg. Botanist	RO	sshelly
Chuck Mark	District Ranger	ST. Joe	cmark
Skip Kowalski	Wildlife program leader	RO	skowalski
Margie Ewing	Community Forester	RO SPF	mewing
Jon Haber	Conservation Planner	RO	jhaber
Bruce Sims	Regional Hydrologist/BAER	RO	bsims
Kevin Hyde	Forestry Sciences	RMRS	kdhyde
Keith Stockman	Economist	RO	kstockman
Mike Niccolucci	Regional Economist	RO	mniccolucci
Paul Chamberlin	Fire Ops	AFD	pchamberlin
Anne Black	Int. Social/Natural Ecologist	ALW R1	aebblack
Pat Garbutt	Regional Fuels & WFU	R1	pgarbutt

Dave Calkin
Jim Wickel
Jeff Scussel

Research Forester
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