

Executive Summary: RAVAR (Rapid Assessment of Values At Risk)

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 Forest Economics Research Unit located at the Missoula Forestry Sciences Lab. RAVAR identifies the primary resource values threatened by ongoing large fire events. RAVAR can be directly integrated with the new FSPro model to identify the likelihood of different resources being affected by an ongoing fire event.

The most important layer generated by the RAVAR model is the structure layer. The structure layer is generated by reaching out to local county offices including assessors, planners, natural resources, and GIS staffs, to acquire the county's spatial (GIS) parcel records. A building clusters map is developed representing the general location of structures identified within the parcel records. In counties where spatial data is limited, an arrangement has been made with the USGS Rocky Mountain Geographic Science Center to conduct aerial photo interpretation to rapidly identify structure location. However, RAVAR is not limited to the assessment of threatened structures. Any resource value that has been spatially mapped may be included within a RAVAR assessment. 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. Further the Rapid Response team can coordinate with field personnel to include spatial data for locally important threatened resources such as cultural heritage sites.

RAVAR can help agency administrators, incident managers, and fire planners develop 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 can help support development of the Wildland Fire Situation Analysis (WFSA) and could be used to help prioritize large fire needs during periods when area command is convened.

