

## ORAL PRESENTATION PROPOSAL

### **LANDFIRE data and ecological departure:**

#### **An analysis of ecosystem loss and structural change**

*Sarah Hagen, Randy Swaty, Kori Blankenship, Jim Smith and Jeannie Patton*

LANDFIRE data was developed to depict vegetation, fuels and fire characteristics across the United States. Due to its cross ownership and comprehensive nature, it is valuable for large scale ecological assessments among other land management planning needs. Here we present an analysis of the level of ecosystem loss and structural conditions change for the remaining non-agricultural or urban vegetation of the mid-western region of the US. We acknowledge the many valuable similar assessments done at local and statewide scales and hope that this regional view will contribute to prioritization and communication efforts underway.

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## WORKSHOP PROPOSAL

### **Modeling for the rest of us: Using LANDFIRE models and Landscape Conservation Forecasting to develop cost-effective management plans and partnerships.**

*Randy Swaty, Sarah Hagen, Kori Blankenship, Jim Smith and Jeannie Patton*

Conservation and land planning efforts are increasingly working at landscape scale, which often necessitates consideration of multiple objectives, many stakeholders and many landowners. While this approach is ecologically beneficial, it presents data and planning challenges. In this workshop, we will explore Landscape Conservation Forecasting TM, a collaborative learning approach used to develop and test multiple management scenarios. The tangible goal of the process is to prepare a land-management approach that will result in the best combination of management actions for the money.

We will work in teams to build relatively simple ecological models, test management assumptions and consider how modeling and teamwork can help managers with difficult

management decisions. Through the process we will develop the best management plan to restore an ecosystem based on cost effectiveness. This modeling effort will not require runways, high heels or a Master's Degree in Business Administration.

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[Sarah Hagen](#) has been with TNC in varying capacities since starting as an intern with the Wisconsin chapter in 2005. Sarah's undergraduate studies at the University of Wisconsin earned her a bachelor's degree in Wildlife Ecology, as well as a certificate in Environmental Studies from the Gaylord Nelson Institute for Environmental Studies. Her graduate certificate in Geographic Information Systems was awarded from the University of Wisconsin. Sarah worked for the stewardship and land protection departments of the Wisconsin Chapter of TNC until September of 2007 when she took a position as the GIS Analyst for the Central Region of TNC. Sarah divides her time between the Illinois Chapter science team and the LANDFIRE team. Her primary focus with LANDFIRE is analyzing National Datasets within various geographies across the Continental United States.

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[Randy Swaty](#) joined The Nature Conservancy in 2002 He earned his Bachelor and Master's degrees in Science from Northern Arizona University in Flagstaff. His scientific specialty is spatial scales, ranging from mycorrhizal ecology to landscape-scale planning. As an ecologist with TNC's LANDFIRE team, Randy works to insure appropriate use of LANDFIRE data, tools and concepts through workshops, data review, data analysis and collaboration. Currently he is working on cost benefit analyses with National Forests, modeling climate change and conservation scenarios with University of Wisconsin researchers and assisting Nature Conservancy field offices with landscapes-scale assessments.

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