

Forest Service Report

August 2012

Pete Lahm

Forest Service

Fire and Aviation Management

Washington, D.C.

Agricultural Air Quality Task Force

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Cohesive Wildland Fire Management Strategy
National Goals; Collective Solutions

Response to Wildfire
Fire Adapted Communities
Resilient Landscapes
Supported by Science

National Wildland Fire Cohesive Management Strategy

Vision: “Safely and effectively extinguish fire, when needed; use fire where allowable; manage our natural resources; and as a nation, live with wildland fire.”



National Cohesive Strategy Goals

- **Restore and Maintain Landscapes:** Landscapes across all jurisdictions are resilient to fire-related disturbances in accordance with management objectives.
- **Fire-adapted Communities:** Human populations and infrastructure can withstand a wildfire without loss of life and property.
- **Wildfire Response:** All jurisdictions participate in making and implementing safe, effective, efficient risk-based wildfire management decisions.



Next Steps

- Tradeoff Analysis by the Science Team is happening now.
- Regional Assessments will be completed in October 2012.
- National and Regional Implementation Plans will be completed in February 2013.
- Final Strategy will be completed in early 2013.



- National Cohesive Strategy Site
- www.forestsandrangelands.gov
- Southeastern Regional Strategy Committee
- <http://sites.nemac.org/southeastcohesivefire/>
- Northeastern Regional Strategy Committee
- <http://sites.nemac.org/northeastcohesivefire/>
- Western Regional Strategy Committee
- <http://sites.nemac.org/westcohesivefire/>

Wildfire Air Quality Response 2012

- **Cohesive interagency effort to respond to smoke impacts from wildfire**
 - **Public Health Impacts**
 - **Transportation Safety Impacts**
 - **Firefighters/Incident Management and Base Camp Personnel Health and Safety Impacts**
- **Deployment of Air Resource Advisors**
 - **Incidents**
 - **Decision Support Centers**
 - **State Smoke Programs**
 - **Geographic Area Coordination Centers**

Air Resource Advisors - Role

Highly variable assignments dependent on incident needs

1) Monitoring

1) Deployment

2) Data Collection

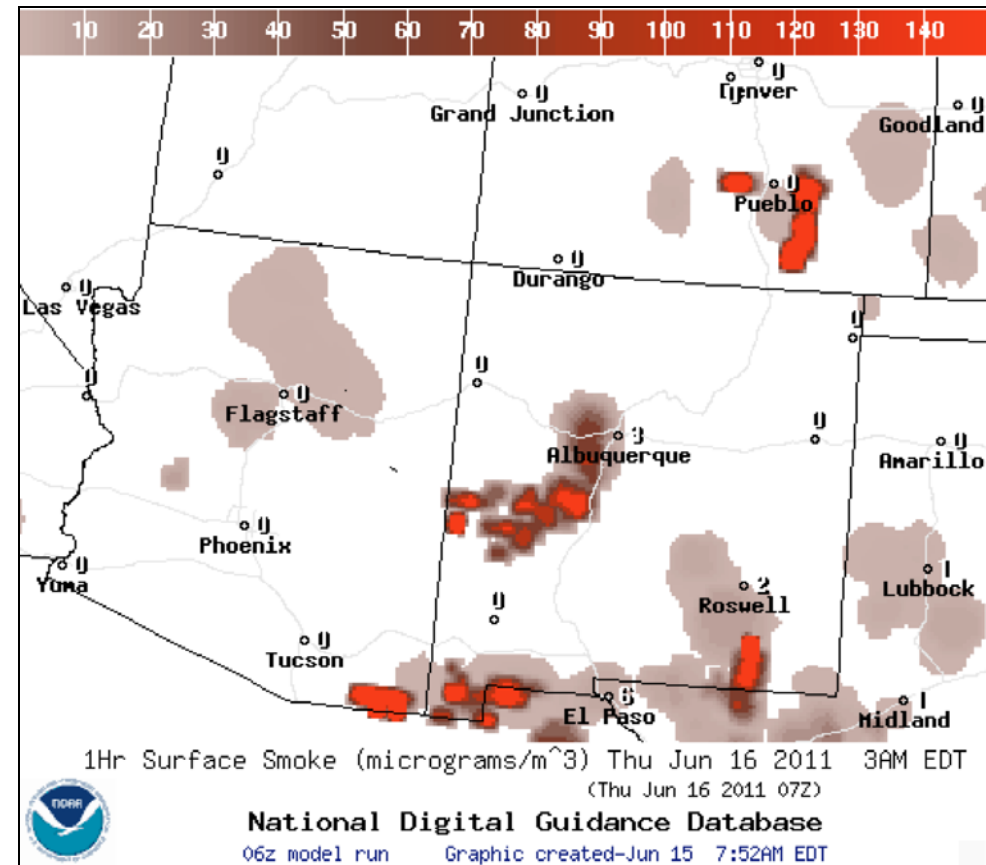
2) Modeling

1) Fire growth intelligence

2) Impact prediction

3) Messaging

1) Interagency coordinated message for public, incident...



Wildfire Response Resource and Tools

- Fire Behavior Forecasts
 - Basic fire growth and spread
 - Potential severity and duration of smoke impacts
 - Large burn-out operations planned?
- Other large incidents in the area?

Wildfire Response Resource and Tools

- **Agency Air Resource/Smoke Management Specialists.**
 - Each Forest Service Region has air quality experts available for consultation.
- **Incident Meteorologists.**
 - Meteorological forecasts of wind speed, direction, mixing height provide information on where smoke may go and how long it will last
- **State Air Quality Regulators and State/Local Health Department Representatives.**
 - Coordination of messaging about public health impacts

Wildfire Response Resource and Tools

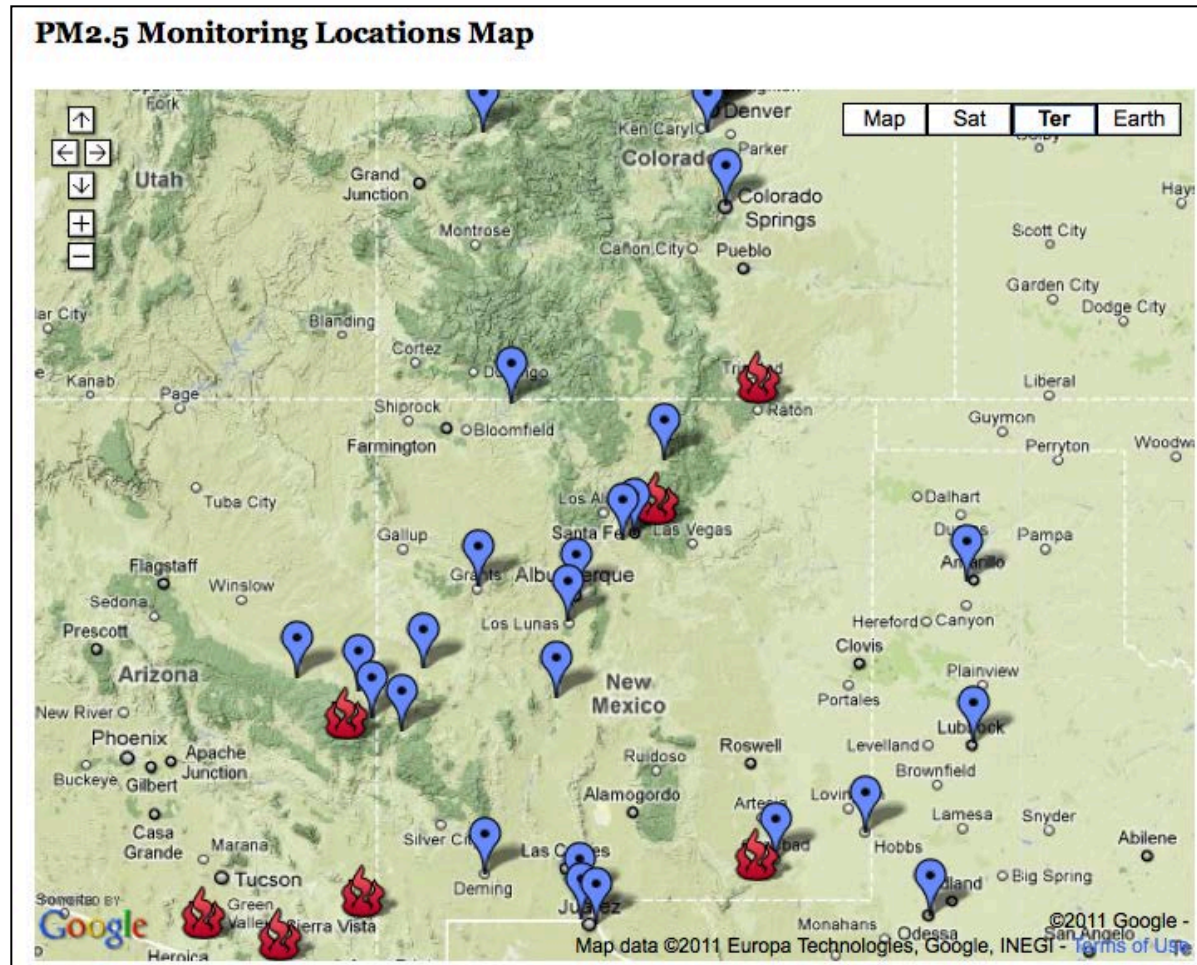
- National Interagency Fire Center (NIFC) Smoke Monitoring Kit.
 - Easy-to-use smoke monitors for dispatch
 - Add to a state network
 - Fire camp
 - Along roads
 - Data web accessible



http://www.myfirecommunity.net/NeighborhoodPublic/Neighborhood279/FY12_ordering_instructions_ESAMPLERS.pdf

Monitoring Challenges

- Aggregating and displaying smoke monitoring information
- All sources: USFS, EPA, states, tribes, local, other
- Where to display and how



WFDSS Air Quality Tools

- Multiple tools in one place; all on the web
- Multi-criterion assessments
- <http://firesmoke.us>

WILDLAND FIRE AIR QUALITY TOOLS PORTAL TOOL ACCESS | ABOUT THIS SITE | HELP | CONTACT

Wildland Fire Air Quality Tools

WFDSS Integrated Tools v1.0 (Beta Test)

STATUS: Updated 10/25: 8 of 8 tools linked and running. Help pages online. Products now open in separate tabs. VCIS table fixed. Some additional development work occurring. See notes below each tool's link for additional information.

STEP 1

Set your fire location:



location used for tailored products.

Latitude °N

Longitude °E

Click on map or type location.

STEP 2

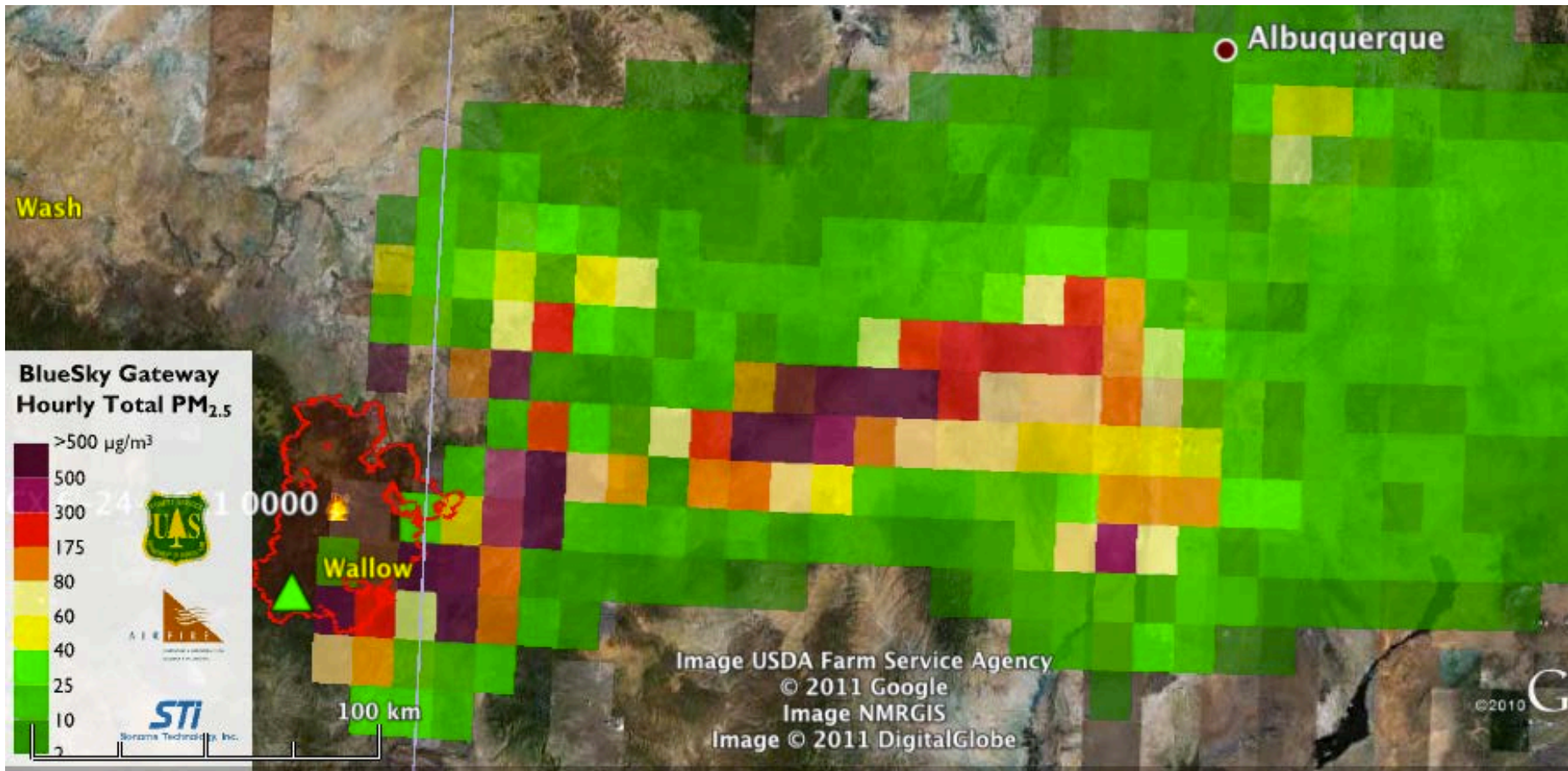
Select Your Tool:

- ▶ Smoke Guidance Point Forecast
- ▶ Smoke Guidance Regional Maps
- ▶ Diurnal Surface Wind Pattern Analysis
- ▶ Climatological Ventilation Index Point Statistics
- ▶ Current Air Quality Conditions Map
- ▶ Fire Information & Smoke Trajectories
- ▶ Customized Fuels, Consumption, & Smoke Modeling
- ▶ Probabilistic Smoke Impacts based on Past Weather

See below for tool description, attributes, and other details.

Wildfire Response Resource and Tools

- Specialized modeling runs to predict smoke impacts using fire growth models



Wildfire Response Resource and Tools

- Training

- A one-hour online course “Smoke Management and Air Quality for Land Managers” is available at:
<http://www.frames.gov/partner-sites/emissions-and-smoke/educational-resources/tutorial/>
- New 4-hr online modular training funded: Wildfire and Air Quality Decision-making

Communication Challenges

- 1) Communicate consistent and clear messages to the public about smoke impacts and how to protect themselves
 - 1) State/Local Air Regulatory Agencies
 - 2) State/Local Public Health Agencies
 - 3) Public Safety (transportation, Super-Fog)
 - 4) Agency and incident public information and media outlets (inciweb.org)
 - 5) NWS Air Quality Advisories
 - 6) EPA AirNow postings and social media outlets
 - 7) Off-grid communication/Tribes
 - 8) Air Quality Risk in opening of evacuated communities

2) The challenge of what to say AQI?

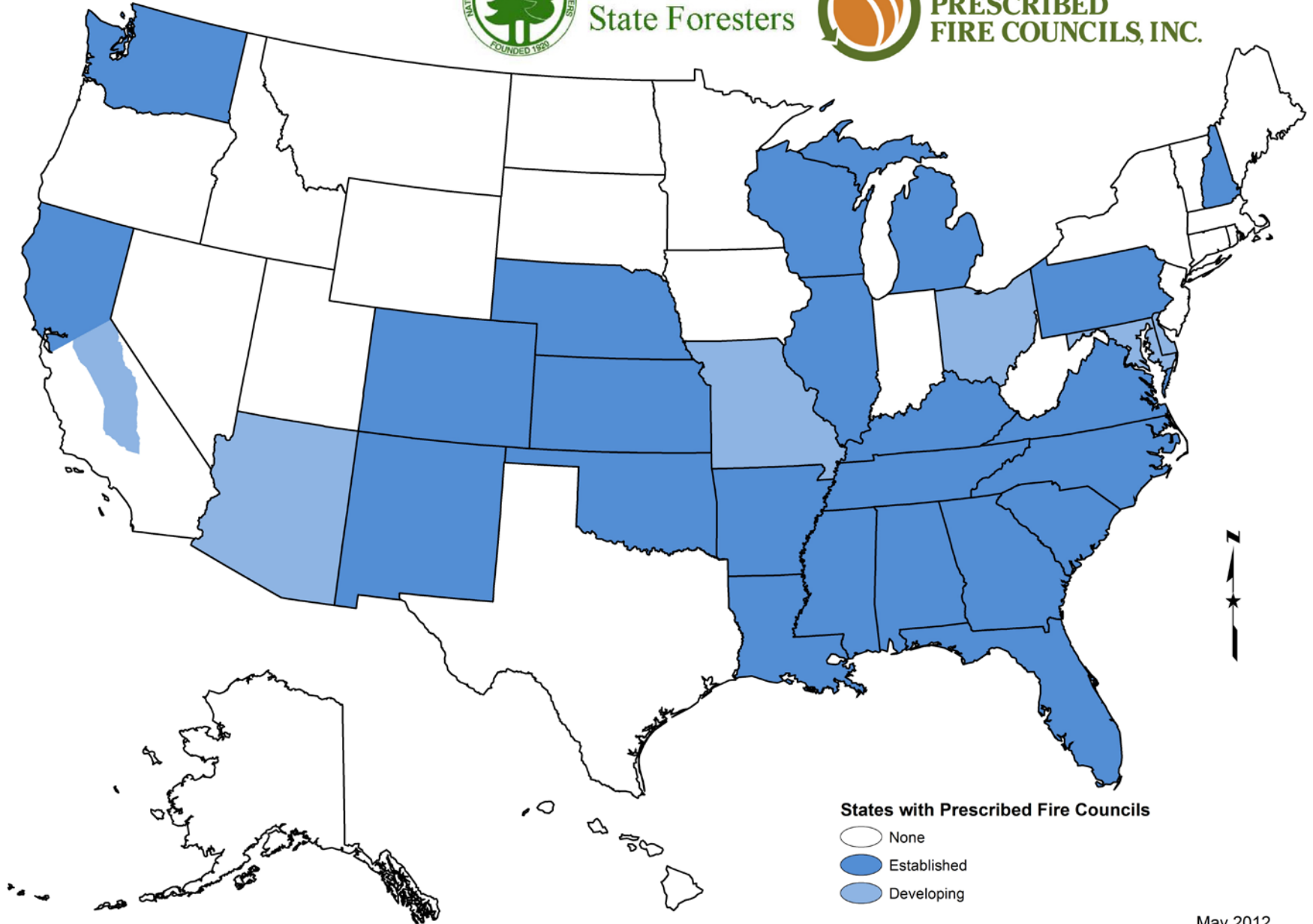
- Shorter duration than 24 hr impacts
- Consolidation of multiple sources of monitoring data
 - AIRNow Emergency Display System????
- CDC vs EPA vs locally derived messages
- Personnel Exposure
- OSHA PM4.0 vs 2.5 EPA NAAQS



NATIONAL ASSOCIATION OF
State Foresters



COALITION OF
PRESCRIBED
FIRE COUNCILS, INC.



Prescribed Fire Statutes

Intention of the Statutes is to:

- Regulate the safe use of prescribed fire
- Establish burn manager requirements or certification standards

The Consequence of New or Improved Prescribed Fire Statutes:

- Limit or reduce potential liability for the burner
- Establish standards of care
- Increase the usage of Prescribed fire by better definition and regulation



States with Preferred Rx Fire Laws

18 states have enacted statutory change to limit the liability of the land owner and the burner.

Most favorable States:



Texas



Georgia



Florida

(Texas exempts the land owner from all prescribed fire liability if a Texas Certified Prescribed Burn Manager is hired.)

In the most favorable states liability actions follow either a “negligence” or “gross negligence” theory.



More information:

Pete Lahm

plahm@fs.fed.us

202-205-0184

