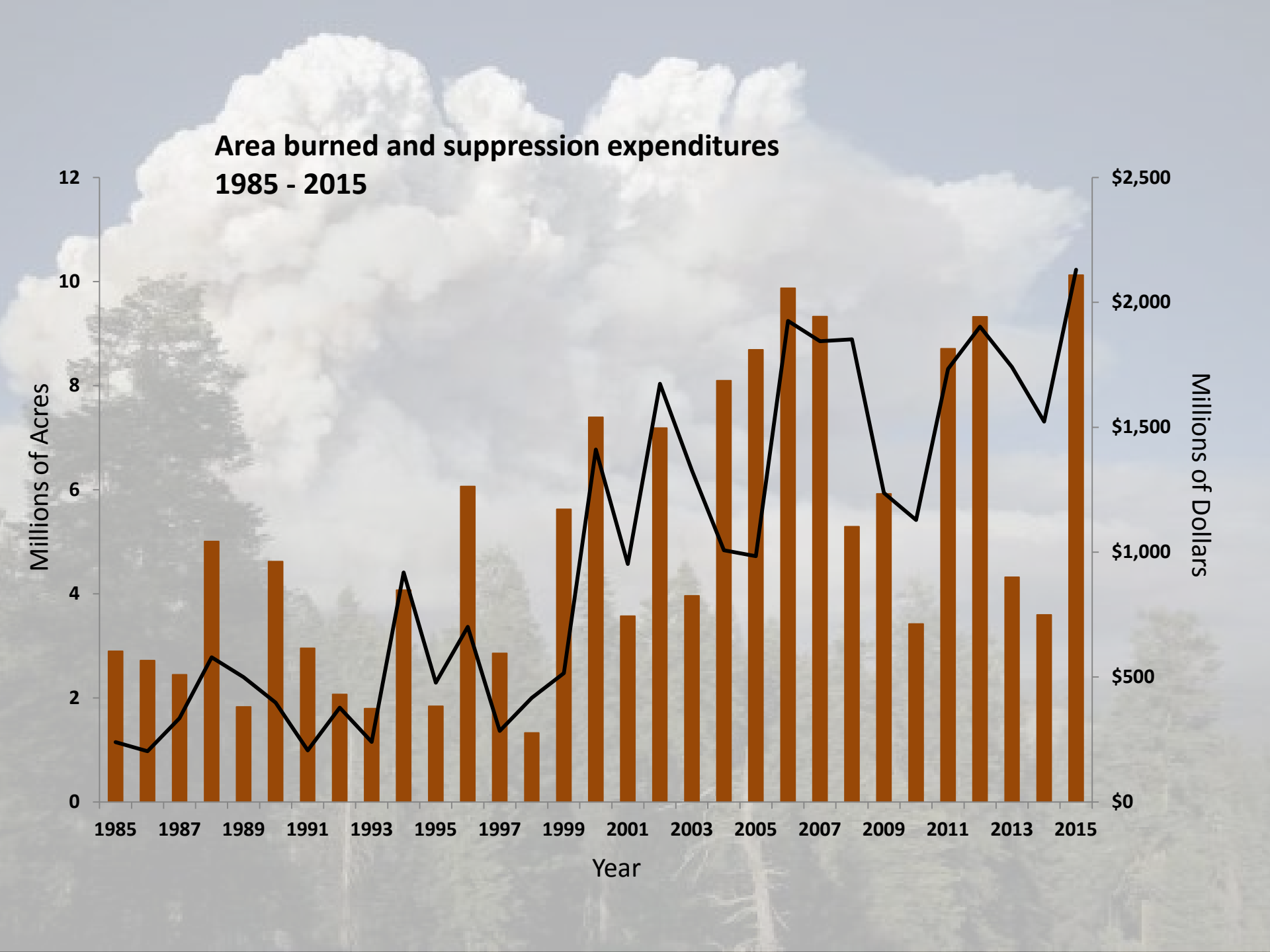
U.S. Forest Service 2016 Wildfire Season Outlook

Matthew G. Rollins
U.S. Forest Service
Research and Development

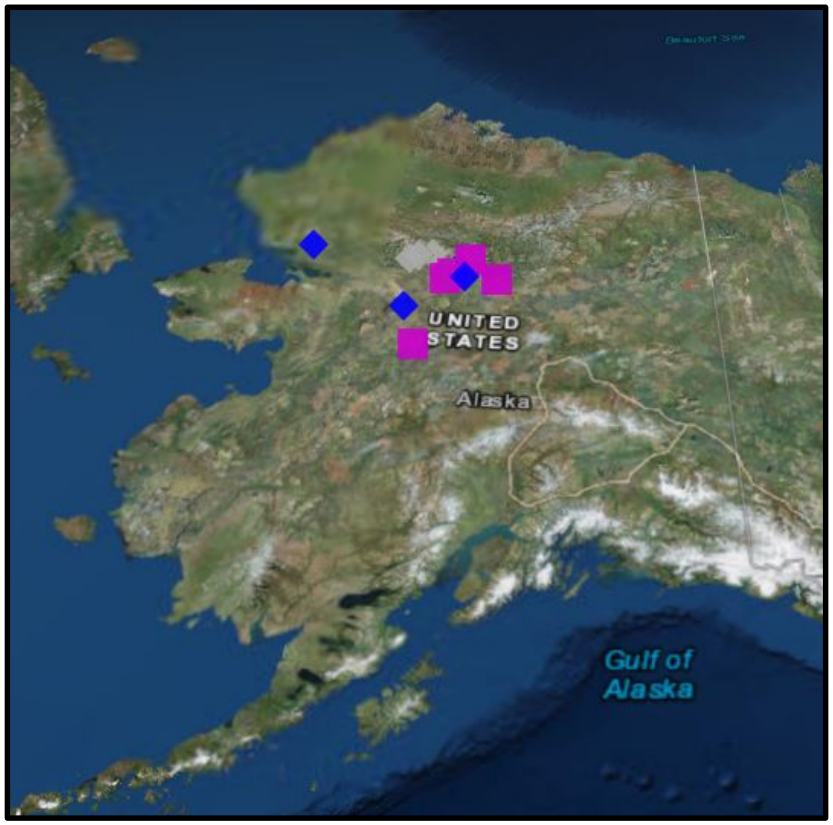
Overview

- Current situation
- Notable Events
- Drought and tree mortality
- Outlook for the summer
- Fire science and technology task force
- Some words on risk


Area burned and suppression expenditures
1985 - 2015
Millions of Acres
Millions of Dollars
Year
0
2
4
6
8
10
12
$0
$500
$1,000
$1,500
$2,000
$2,500
1985
1987
1989
1991
1993
1995
1997
1999
2001
2003
2005
2007
2009
2011
2013
2015

Active Wildfires, Alaska, July 6 2016

- Large Fire IMT 2 (Other)
- Wildfire
- Emerging < 24 Hr
- Emerging > 24 Hr



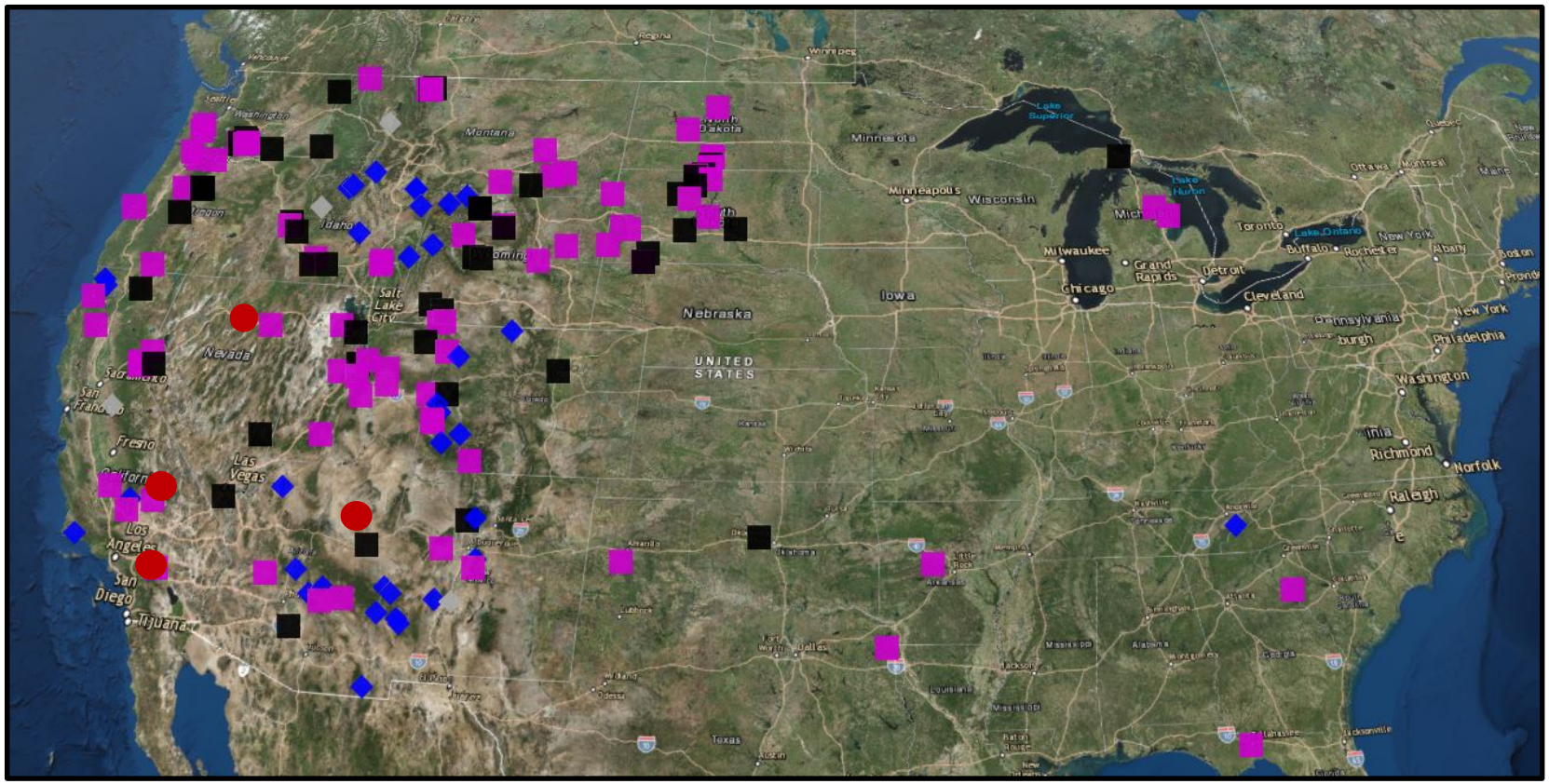
129,861 Acres to date

NATIONAL INTERAGENCY FIRE CENTER
Boise, Idaho

FIRE ENTERPRISE GEOSPATIAL PORTAL


Alaska, July 8 2015
2,305,316 Acres
Anchorage
Seward
Kodiak
Juneau
Sitka
Petersburg
Wrangell
Ketchikan
Valdez

Active Wildfires, CONUS, July 6 2016
2,179,306 Acres to date



- Large Fire IMT 2 (Other)
- Wildfire
- Emerging < 24 Hr
- Emerging > 24 Hr
- Notable Events

NATIONAL INTERAGENCY FIRE CENTER
Boise, Idaho

FIRE ENTERPRISE GEOSPATIAL PORTAL

Notable Events

Erskine Fire, CA (48,000 acres)

- June 23rd
- Burned 238 homes
- 2 fatalities

Cedar Fire, AZ (46,000 acres)

- June 15th
- On June 28th 6 firefighters deployed their fire shelters, no injuries

Pine Fire, CA

- June 15th
- Highest potential for growth

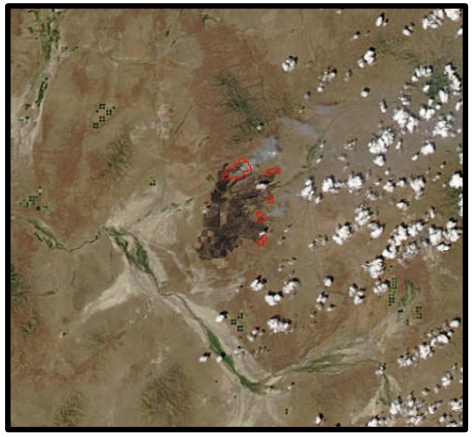
Erskine Fire, CA

Cedar Fire, AZ

Notable Events

Hot Pot Fire, NV (123,000 acres)

- July 2nd
- Burned 90,000 acres in first 24 hours

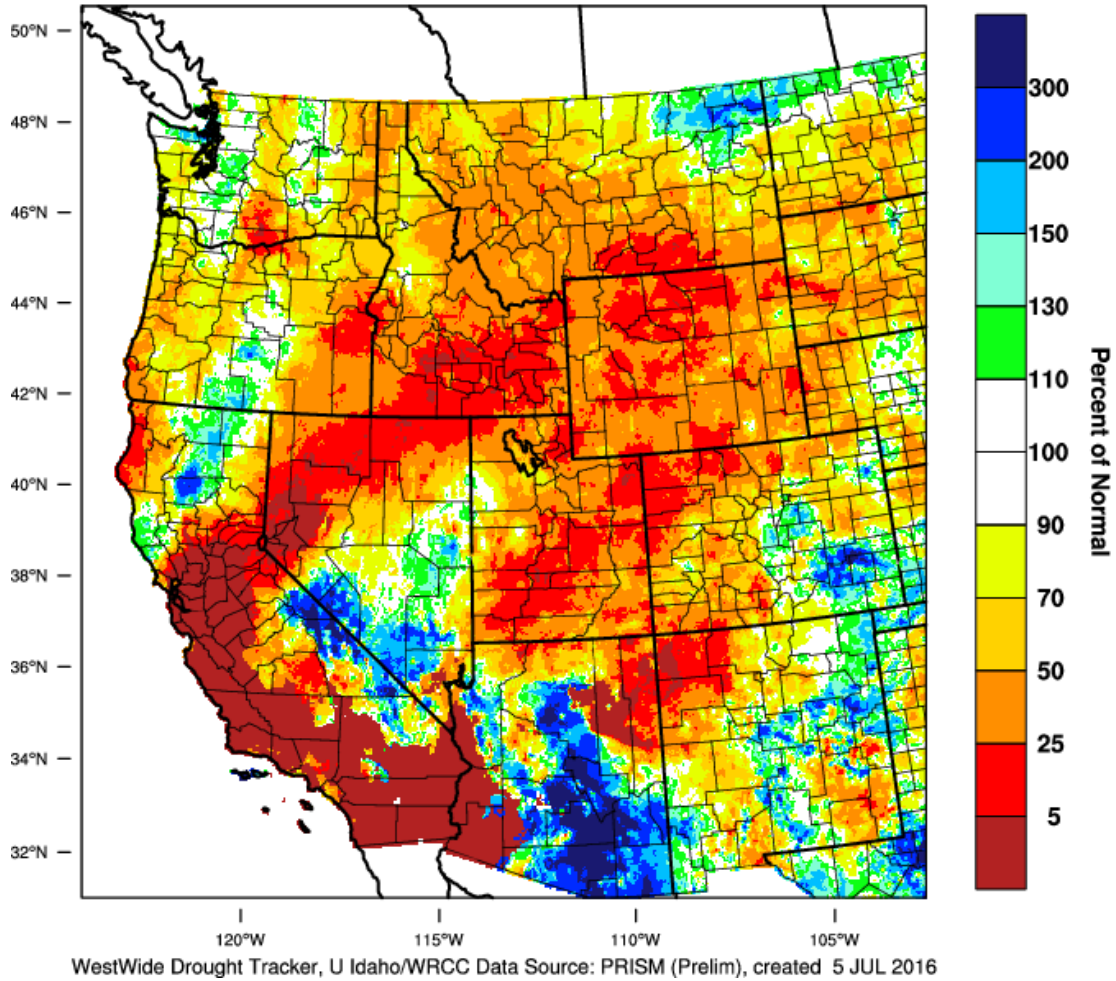


Time lapse of plume development during the first hour:

https://youtu.be/sQp0BXcsKk4

Western United States - Precipitation

June 2016 Percent of 1981-2010 Normal



WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 5 JUL 2016

Drought and Tree Mortality in California

- Drought persists through the fall, despite increases in precipitation from El Niño last winter
- Predicted La Niña could lead to dryer conditions
- Recent survey estimated 66m dead trees in the southern Sierra Nevada

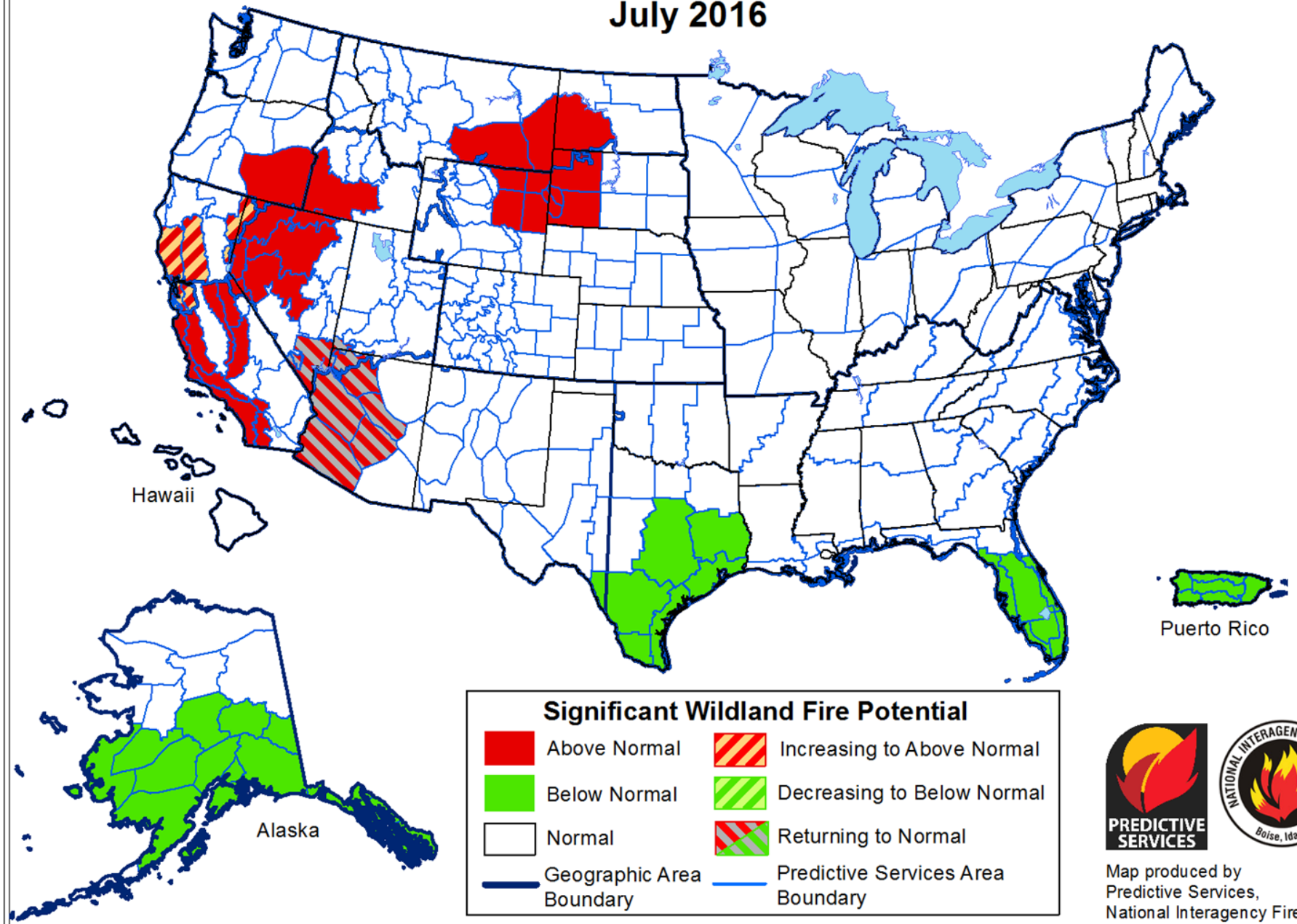
Tree Mortality and Fire in California

Dead trees with red needles, are more flammable than live trees.

After needle drop, the standing dead trees generally do not pose an increased risk of wildfire.

Once the trees fall, the potential to increase fire severity returns with the increased amount of large fuel on the forest floor.

Significant Wildland Fire Potential Outlook
July 2016



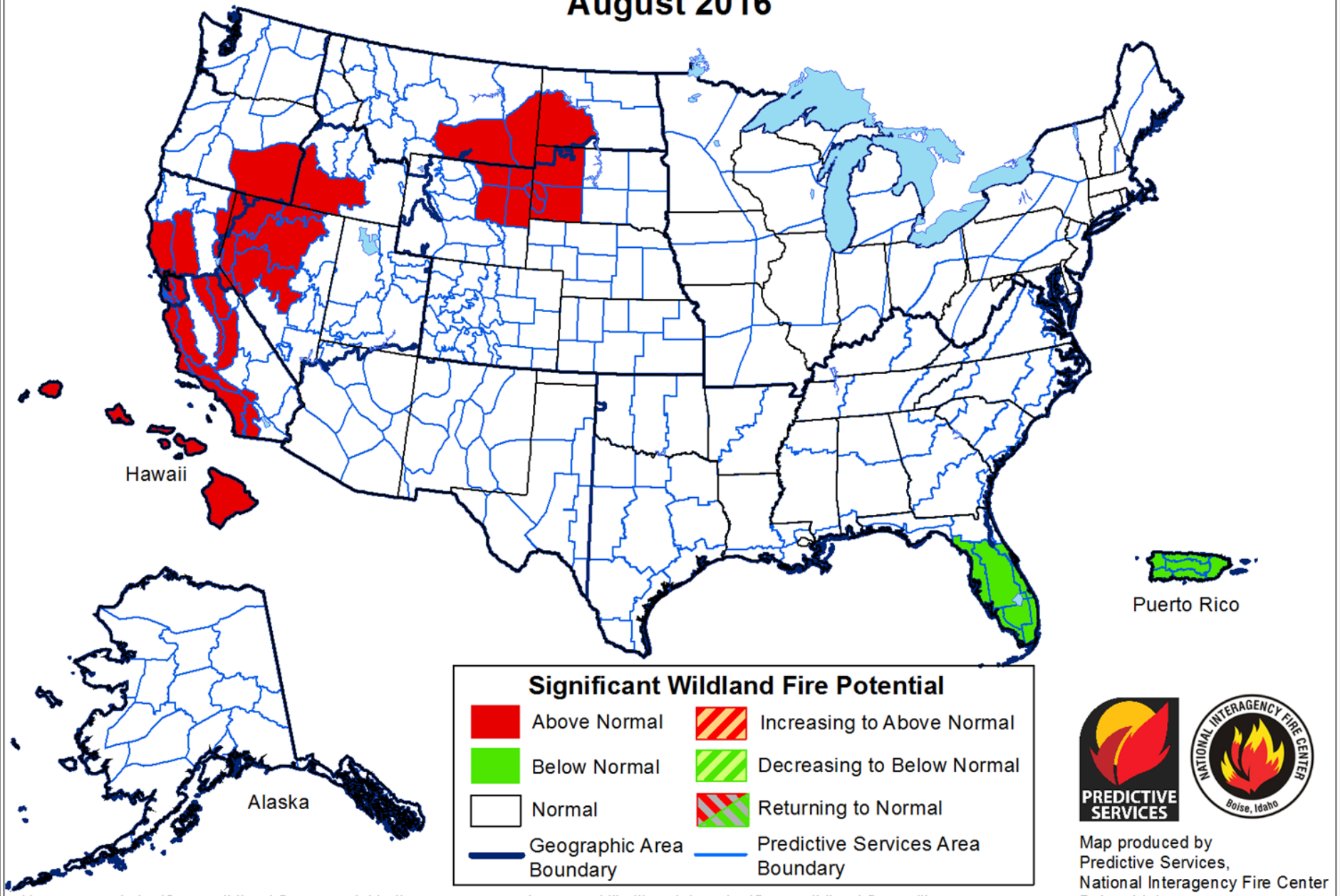
Significant Wildland Fire Potential

- Above Normal
- Below Normal
- Normal
- Geographic Area Boundary
- Increasing to Above Normal
- Decreasing to Below Normal
- Returning to Normal
- Predictive Services Area Boundary

Above normal significant wildland fire potential indicates a greater than usual likelihood that significant wildland fires will occur.
Significant wildland fires should be expected at typical times and intervals during normal significant wildland fire potential conditions.
Significant wildland fires are still possible but less likely than usual during forecasted below normal periods.

Map produced by
Predictive Services,
National Interagency Fire Center
Boise, Idaho
Issued July 1, 2016
Next issuance August 1, 2016

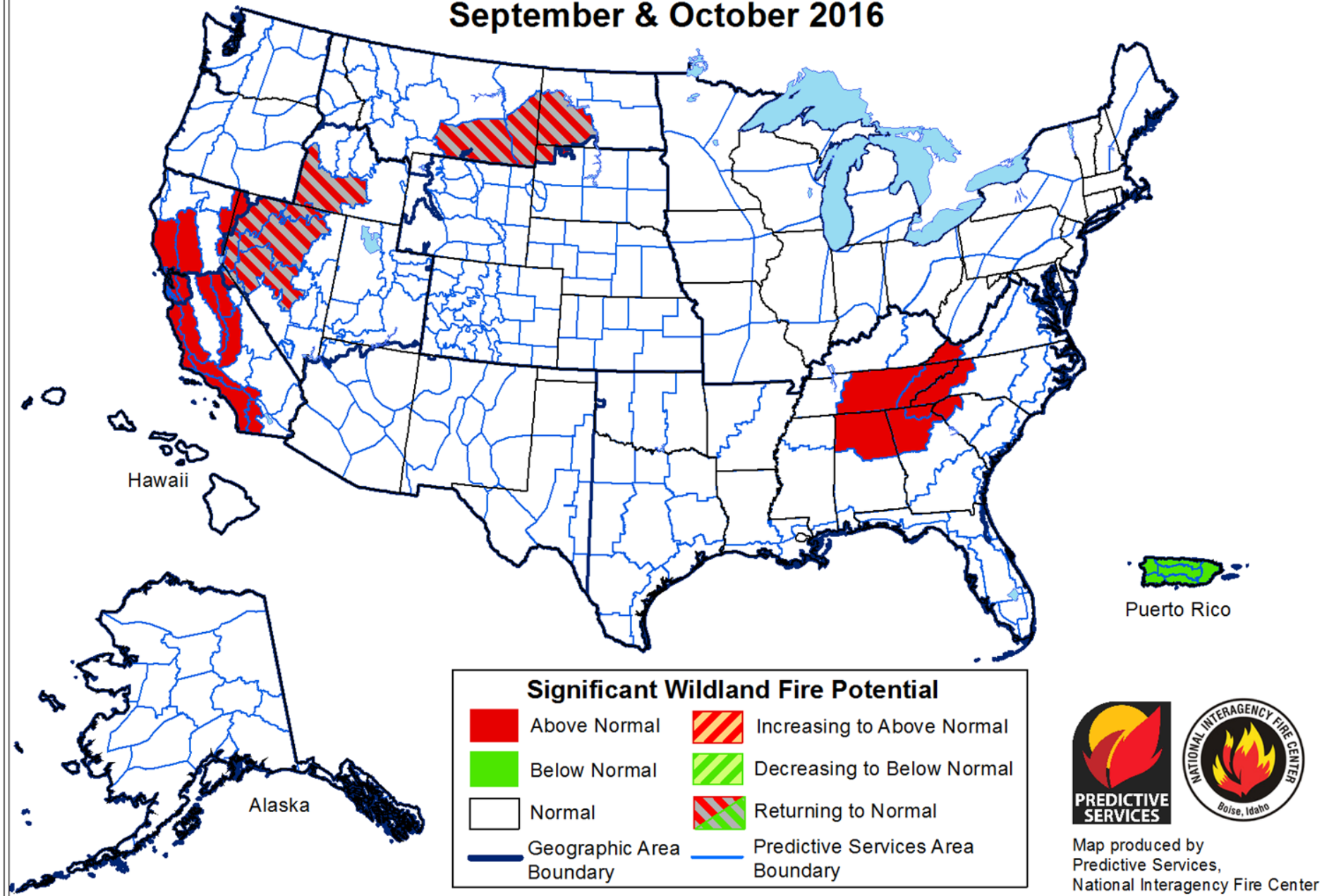
Significant Wildland Fire Potential Outlook
August 2016



Above normal significant wildland fire potential indicates a greater than usual likelihood that significant wildland fires will occur.
Significant wildland fires should be expected at typical times and intervals during normal significant wildland fire potential conditions.
Significant wildland fires are still possible but less likely than usual during forecasted below normal periods.

Map produced by
Predictive Services,
National Interagency Fire Center
Boise, Idaho
Issued July 1, 2016
Next issuance August 1, 2016

Significant Wildland Fire Potential Outlook
September & October 2016



Above normal significant wildland fire potential indicates a greater than usual likelihood that significant wildland fires will occur.
Significant wildland fires should be expected at typical times and intervals during normal significant wildland fire potential conditions.
Significant wildland fires are still possible but less likely than usual during forecasted below normal periods.

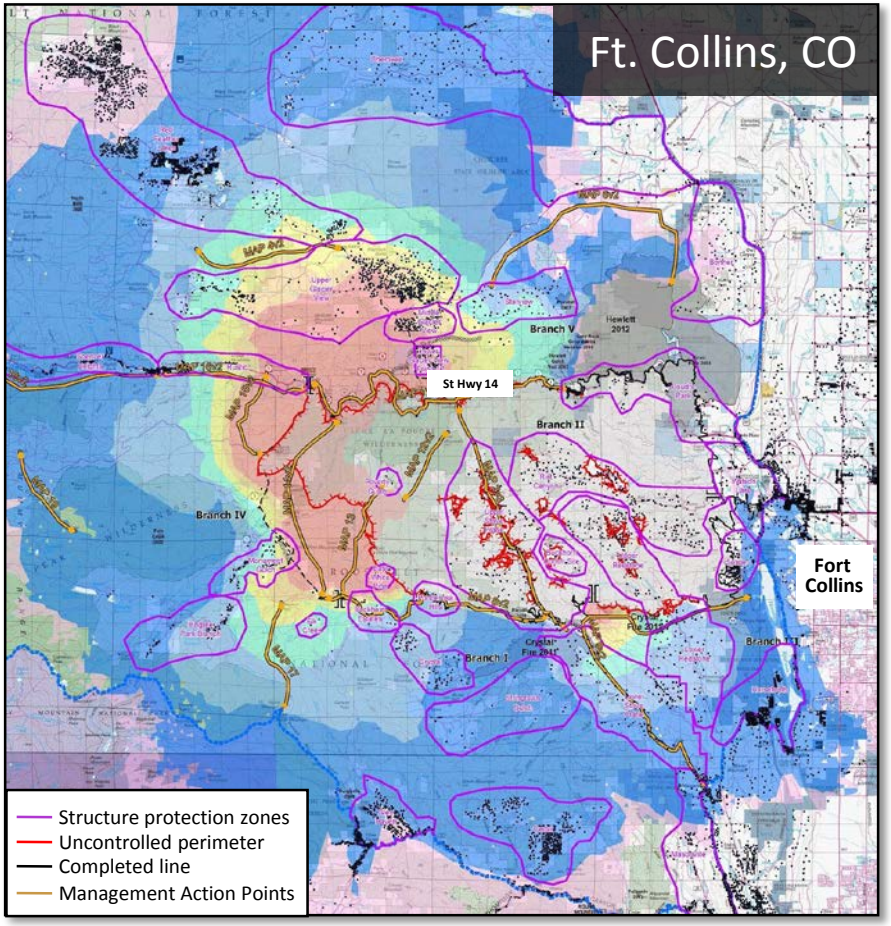
Map produced by
Predictive Services,
National Interagency Fire Center
Boise, Idaho
Issued July 1, 2016
Next issuance August 1, 2016

Federal Fire Science Coordination Council

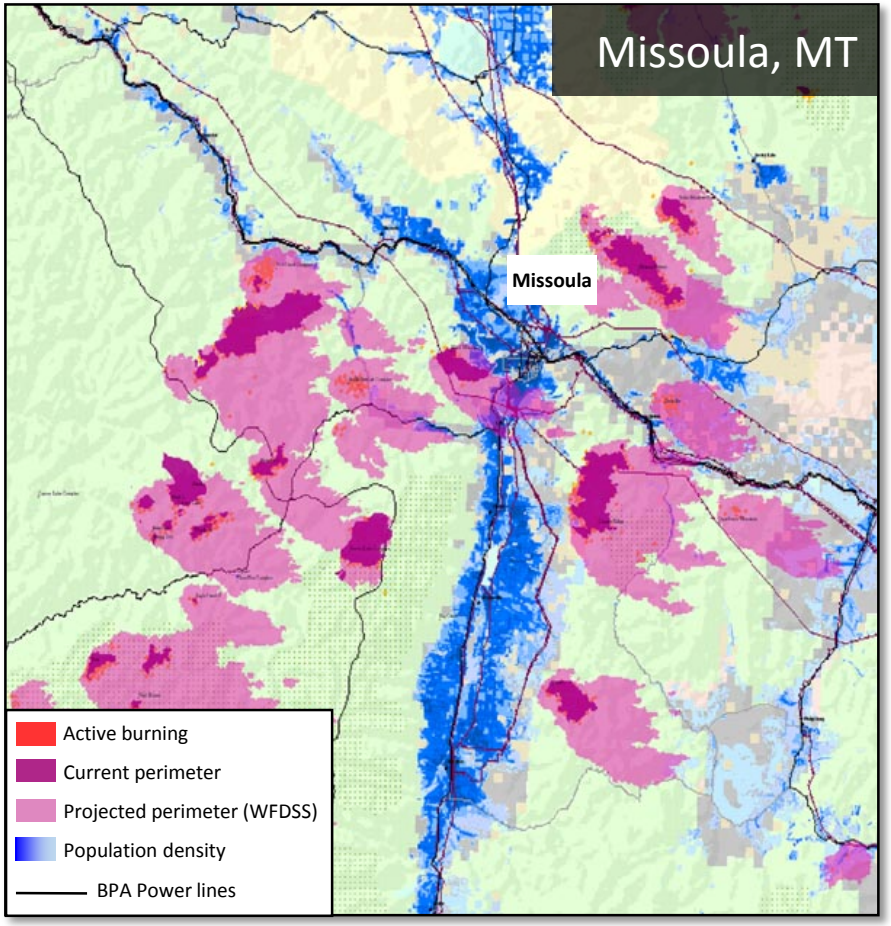
Initial meeting on June 8th

- Early scoping
- Membership
- Charter
- Products/Outcomes
- First 'Real' meeting October 12-13 in D.C.

Local Level



Regional Level



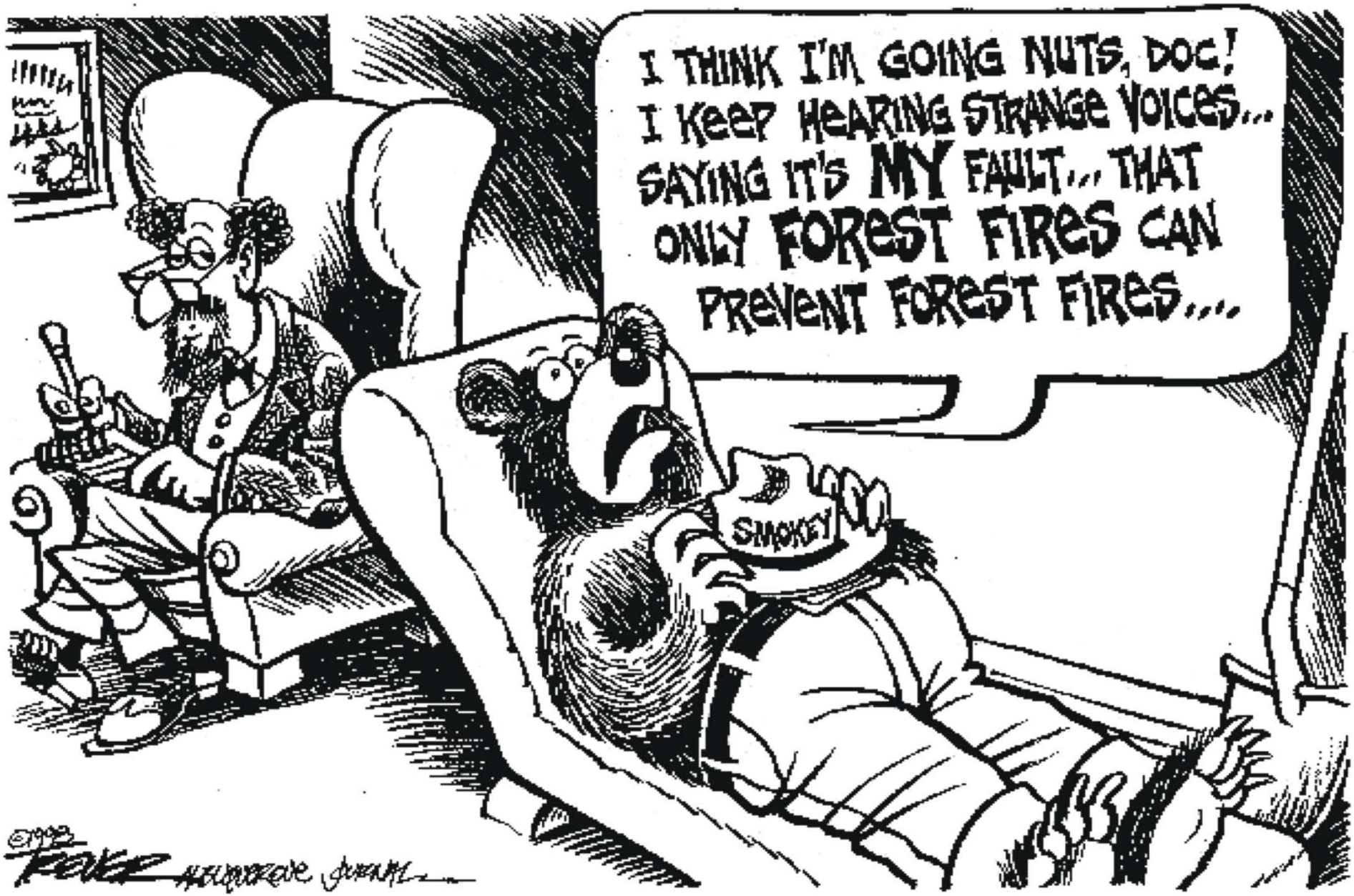
How do we successfully approach wildfire risk?

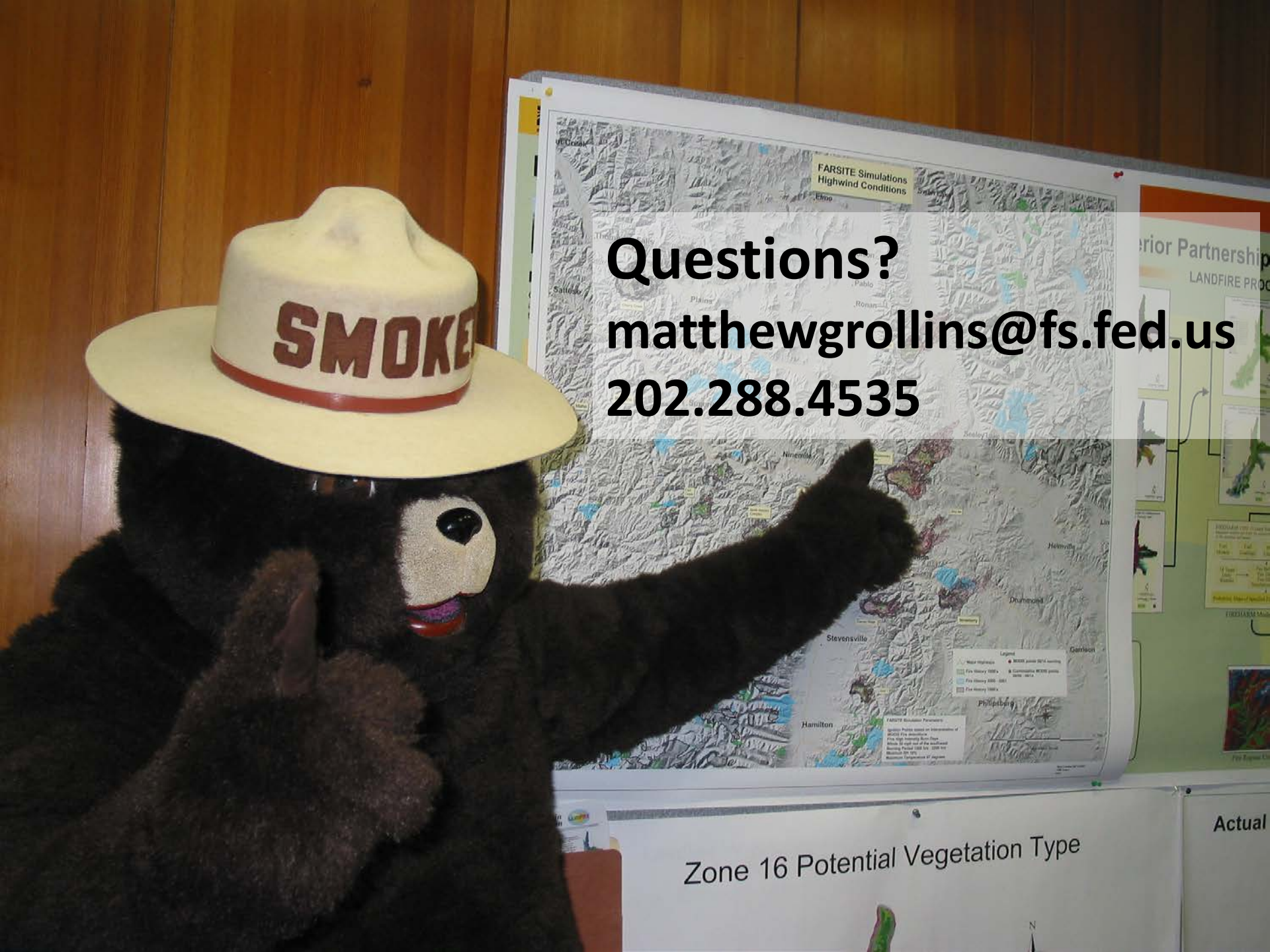
Tactical risk aversion

‘Smart money’ is on acquiring resources and practicing aggressive suppression.

Strategic risk management

Improved social environment for proactive mitigation, sharing risk across stakeholders, and reduction of uncertainty around ‘less aggressive’ suppression.


I THINK I'M GOING NUTS, DOC! I KEEP HEARING STRANGE VOICES... SAYING IT'S MY FAULT... THAT ONLY FOREST FIRES CAN PREVENT FOREST FIRES....
SMOKEY



Questions?

matthewgrollins@fs.fed.us

202.288.4535