



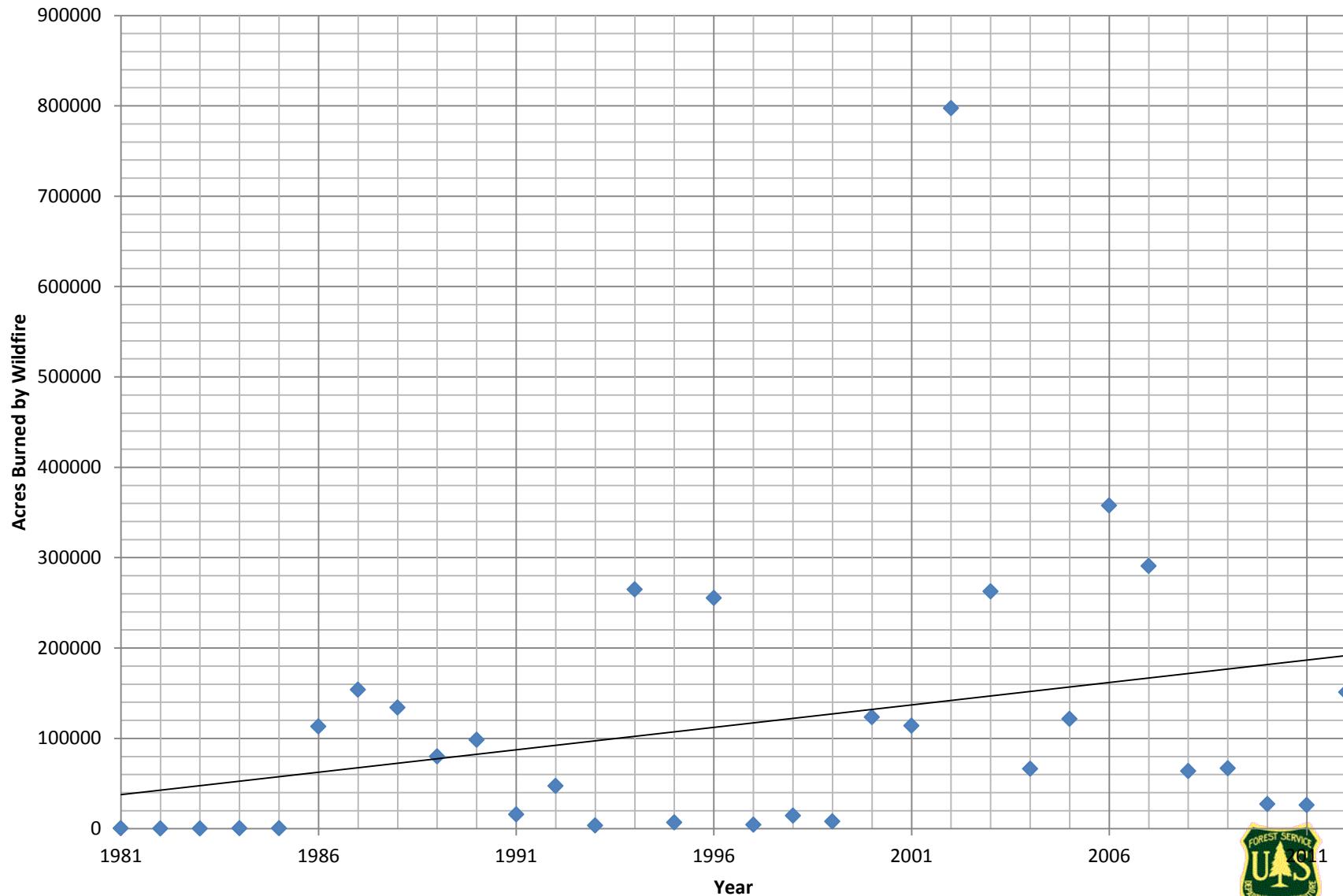
Wildfire Trends and Forest Restoration Strategies

National Forests in the Pacific Northwest



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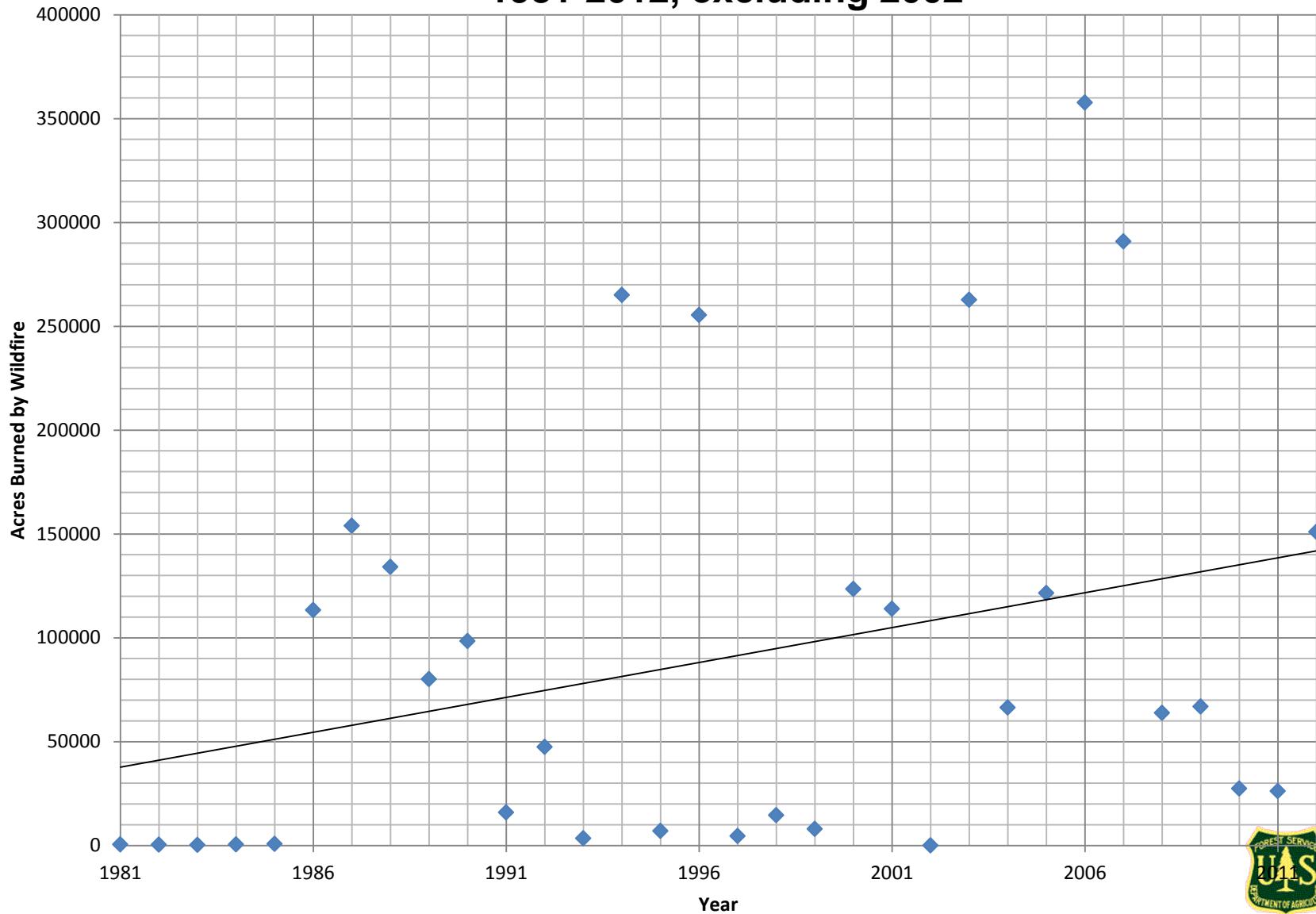
Acres Burned by Wildfire on National Forests in Oregon and Washington, 1981-2012



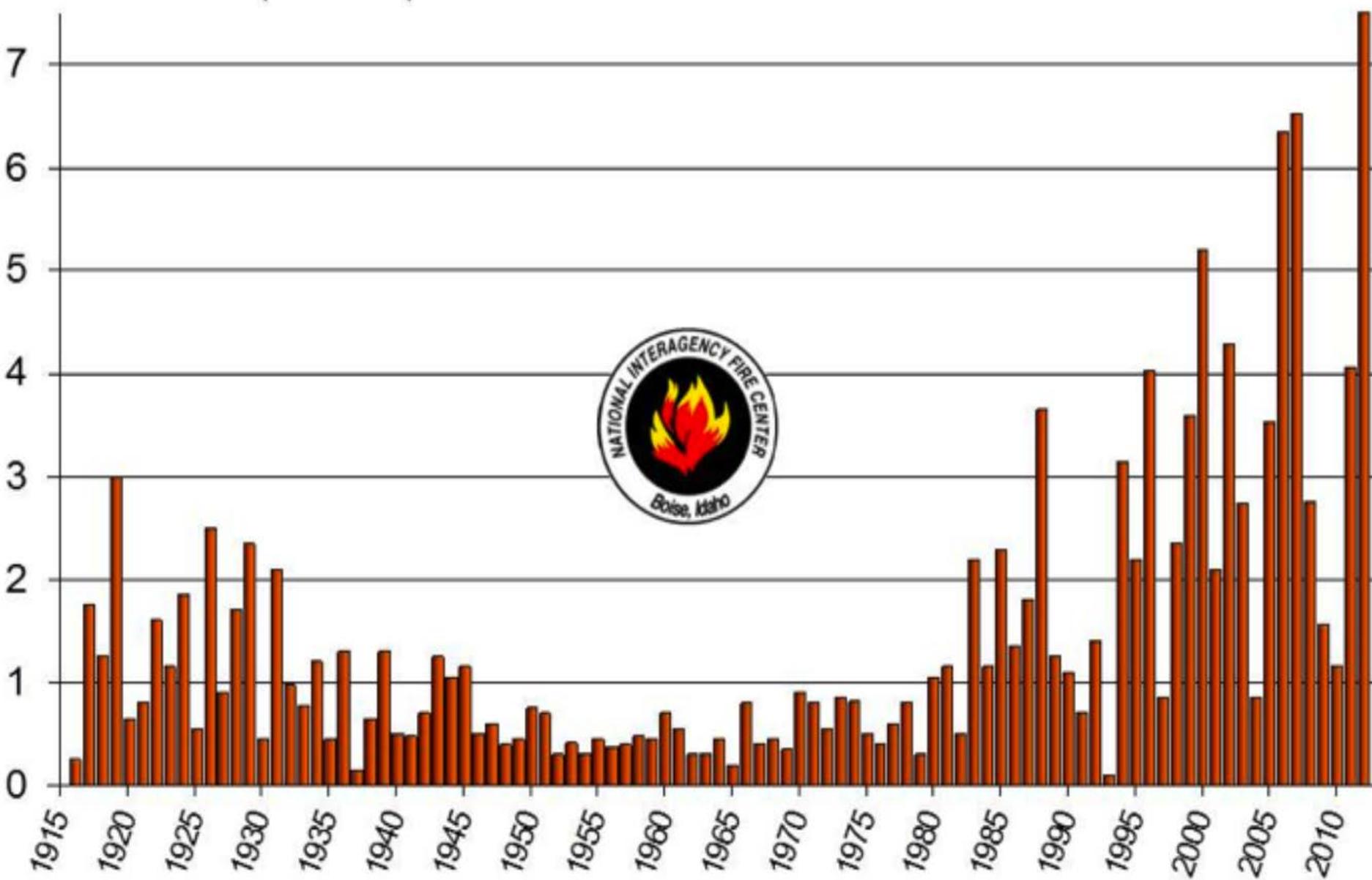


Acres Burned by Wildfire on National Forests in Oregon

1981-2012, excluding 2002



Acres burned (millions)



*Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming

†2012 data through October 9. Prepared by Jay O'Laughlin, University of Idaho.





3000000

2500000

2000000

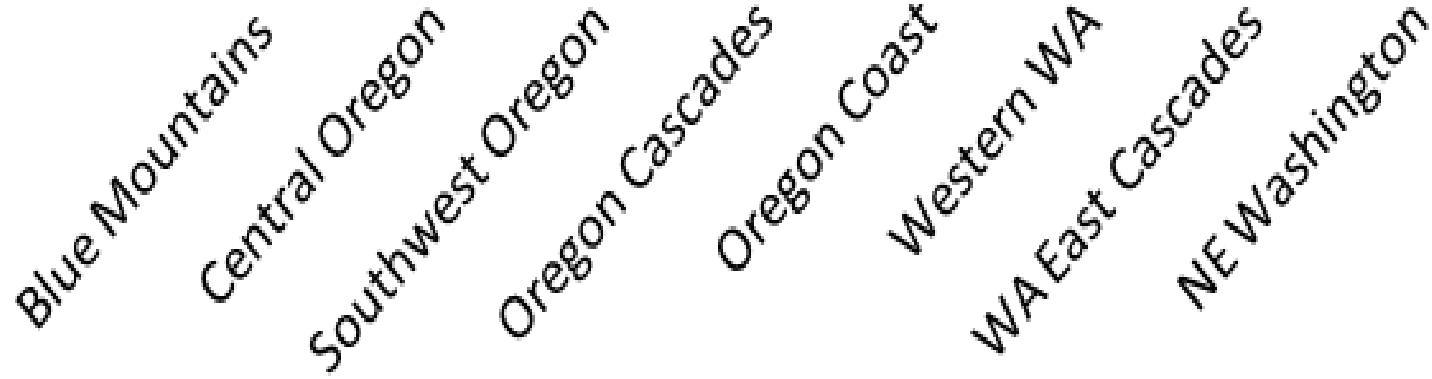
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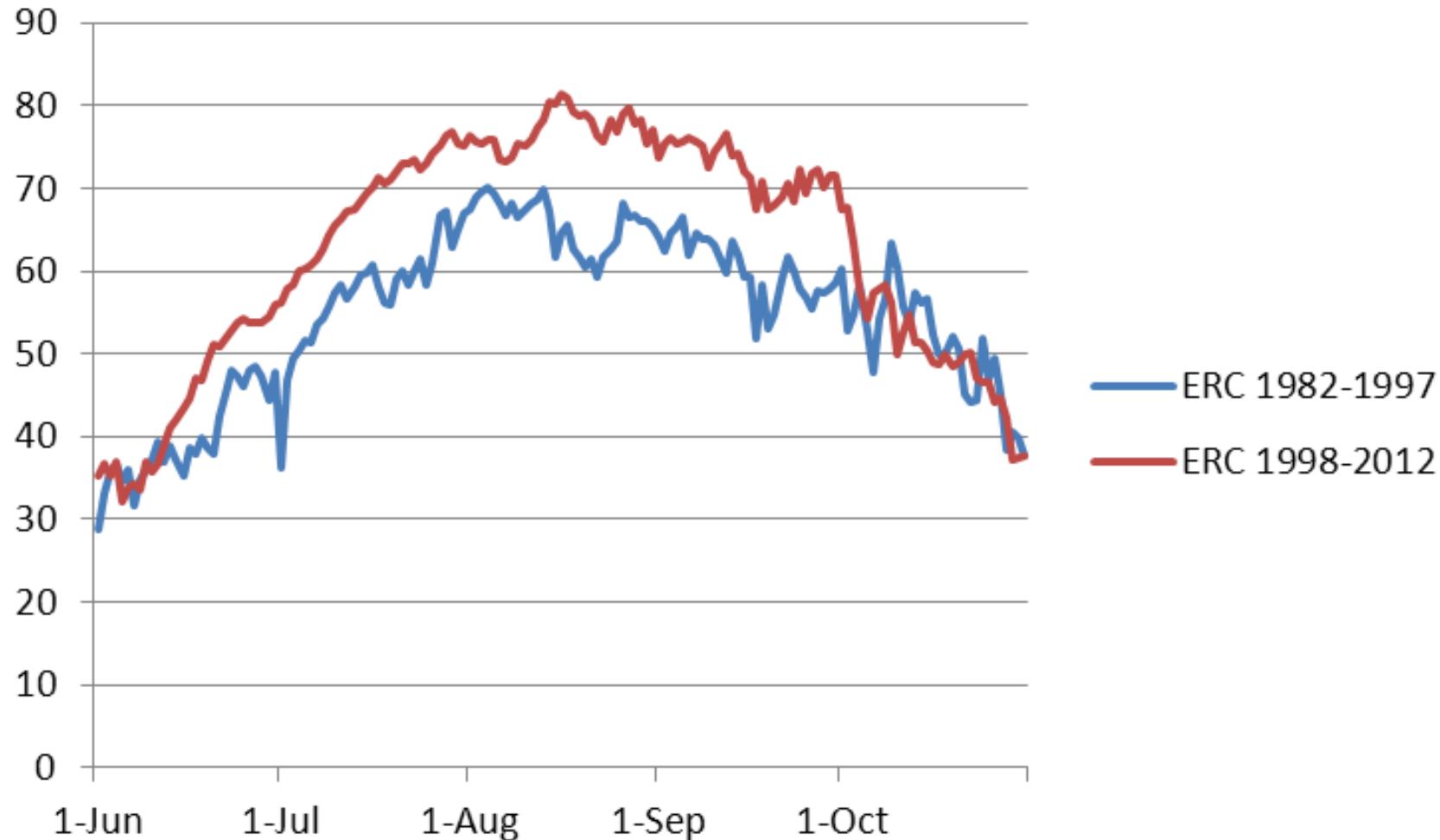
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500000

0

Current Condition

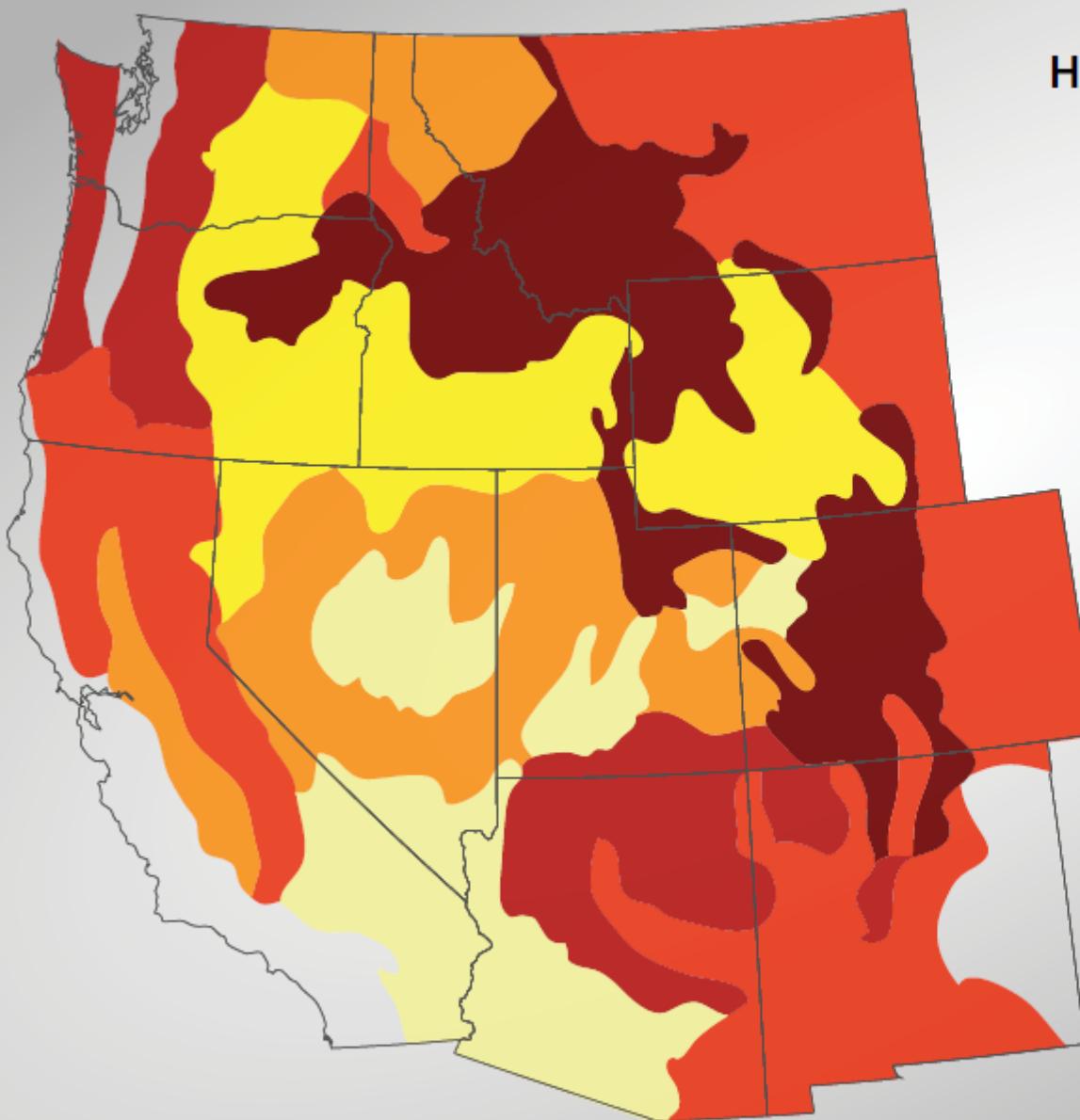




Time period	90 th	97 th	peak
1982-1997	80	85	100
1998-2012	85	89	95



Higher Temperatures Will Increase Burn Areas In the West



How much more area will burn each year if temperatures rise 1.8 °F:

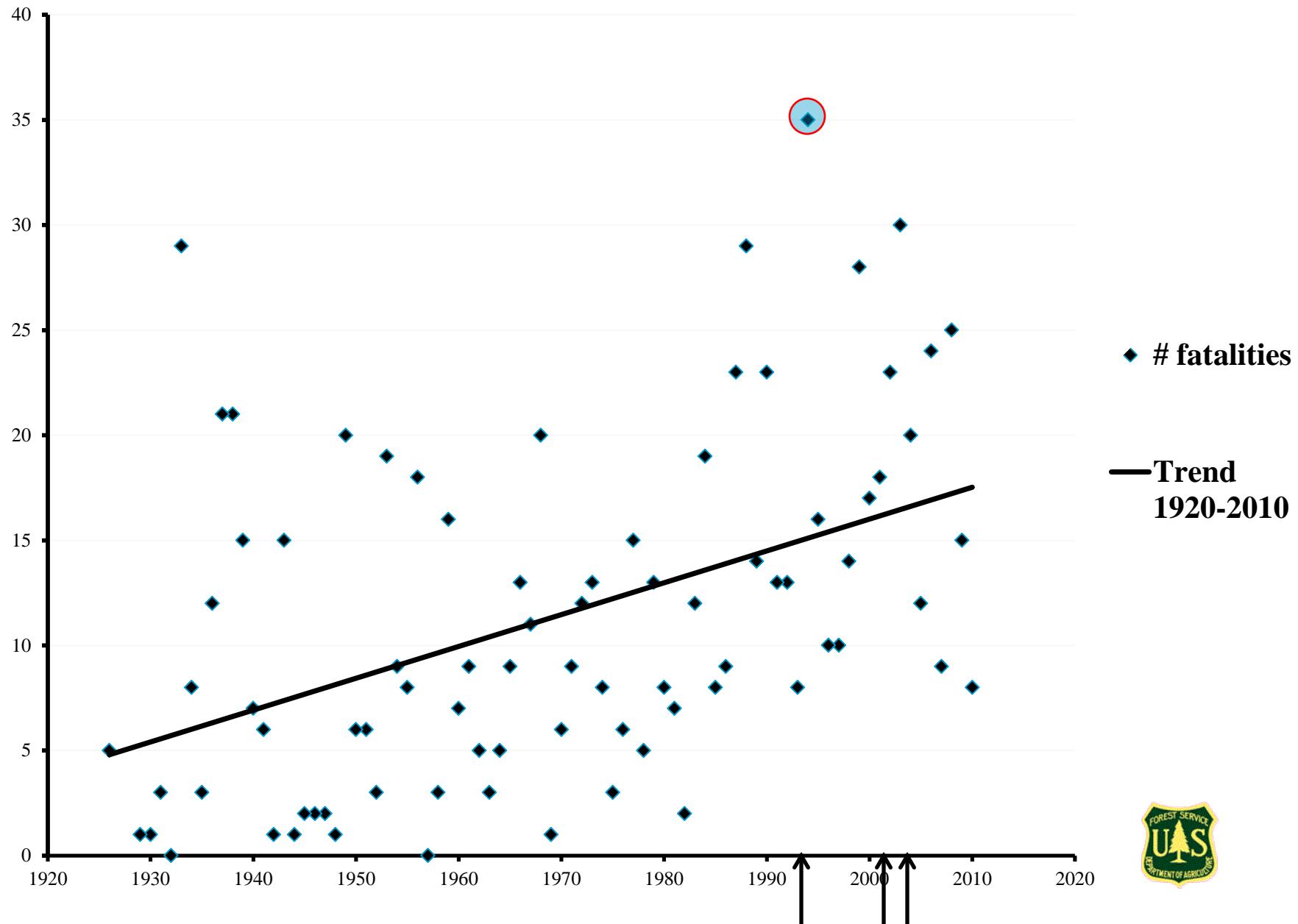
- at least 6 times more
- 5-6 times more
- 4-5 times more
- 3-4 times more
- 2 - 3 times more
- up to 2 times more







US Wildland Firefighter Fatalities – 1925-2010



Risk Management: The New Currency in Fire Management Decisions

- What is at risk?
 - Firefighters
 - Public safety, health
 - Property, improvements, infrastructure, natural resources



Federal Wildfire Policy

- Protection of life and property always an objective
- A wildfire may be concurrently managed for more than one objective
- Manage unplanned natural ignitions to achieve desired Land and Resource Management Plan objectives when risk is within acceptable limits



Fire Suppression Costs

- Upward trend – 2013 FS estimate \$1.5-3.0 Billion
- Large, long duration fires are expensive in the short term
- Small fires are cheap in the short term





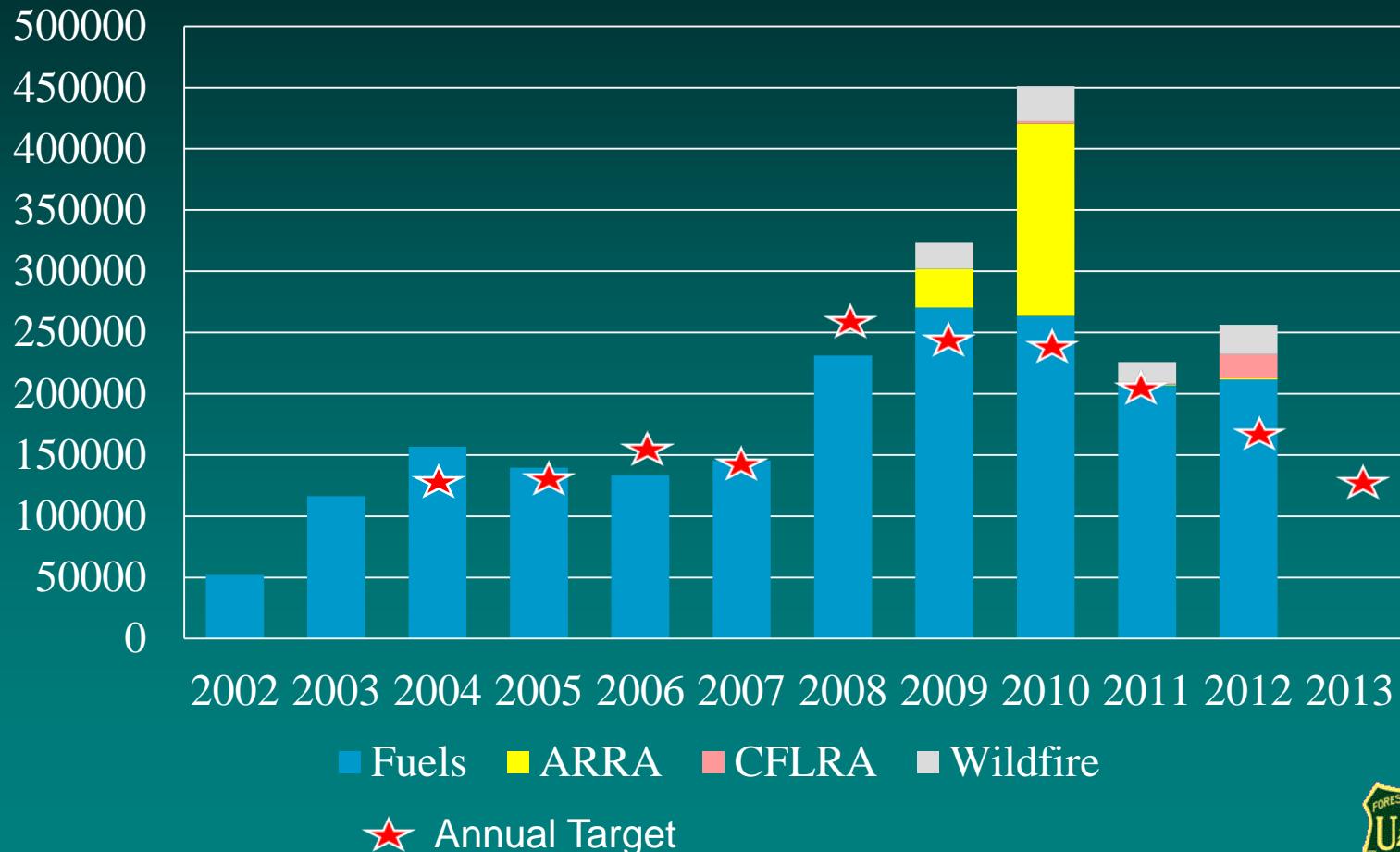
- Active Management – thinning, prescribed burning
- Use of wildfires







Fuels Treatment on National Forests in the PNW 2002-2012



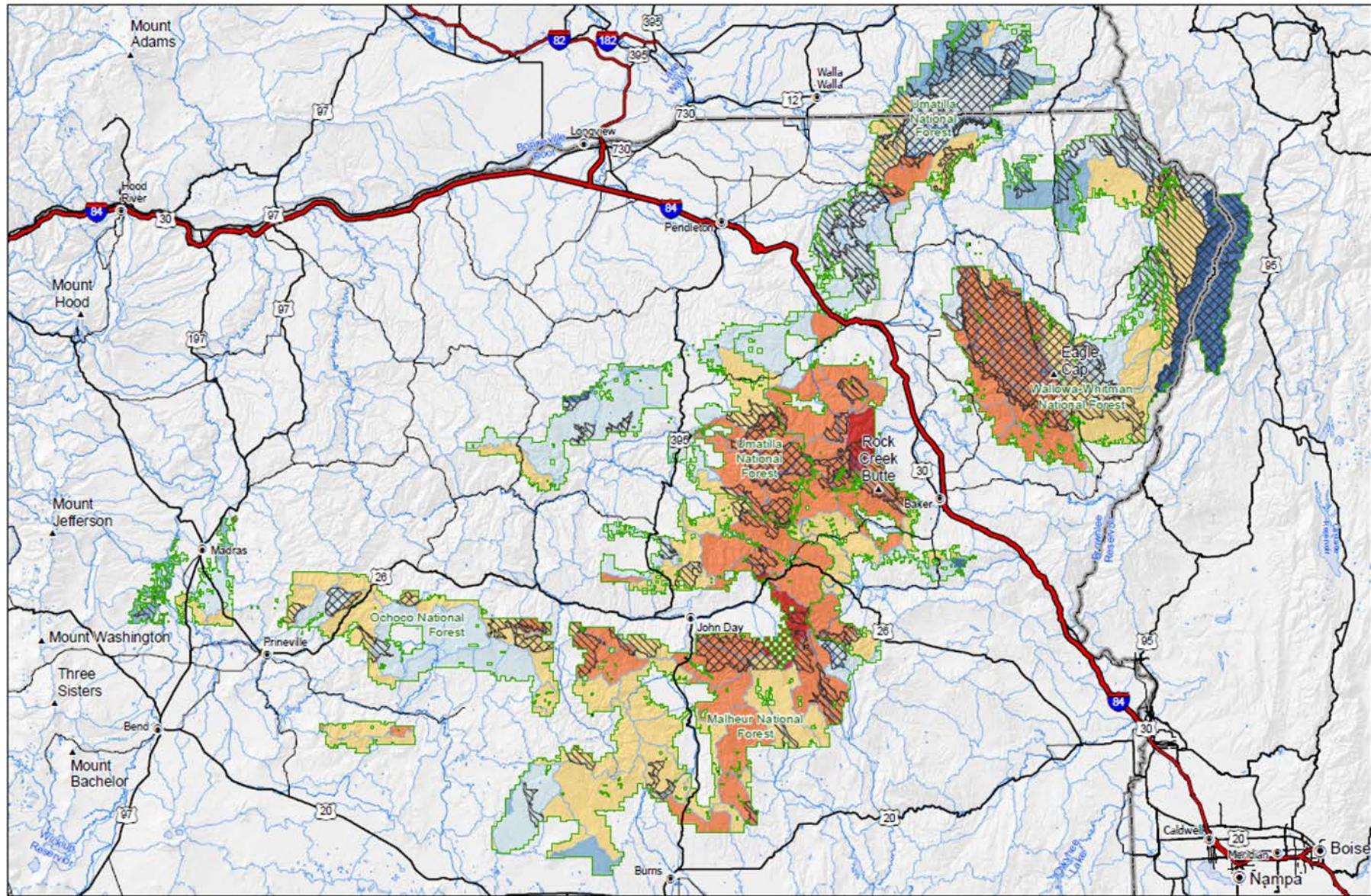


Accelerated Pace and Scale of Restoration

- Planning and Implementing Projects at larger scale
- Dedicated Interdisciplinary Team
- Early, frequent, significant engagement of collaboratives
- Support of science community



Active Forested Restoration Need by Watershed on Forest Service Lands, Blue Mountains



Percent of Forest Service land within 5th-field
watersheds in need of active restoration

0 - 9	20 - 29	40 - 49
10 - 19	30 - 39	50 - 61

Transportation

- ~~~~ Interstate Highway
- ~~~ US Highway
- ~~ State Highway

Hydrography

- ~~~~ Lakes
- ~~~ Rivers and Streams
- ~~~~ Watersheds

Management

- ~~~~ National Forest Ownership
- ~~~~ Wilderness Area
- ~~~~ RARE II Roadless Area

Other Layers

- Cities and Towns
- ▲ Peaks

For this analysis, lands moderately and severely departed from reference conditions as defined by stand FRCC classes 2 & 3 were defined as being in need of restoration. Percentages were calculated only on forested Forest Service lands within each watershed, using Landfire Refresh 2008 Bp5 and S-class layers. "Active" restoration defined as any vegetation-altering treatment designed to meet restoration objectives (can include commercial logging, thinning, prescribed fire, wildfire for resource objectives). GIS analysis and cartography by Chris Ringo, 2013-02-25



- Active Management – thinning, prescribed burning
- Use of wildfires





Fuels treatment prioritization

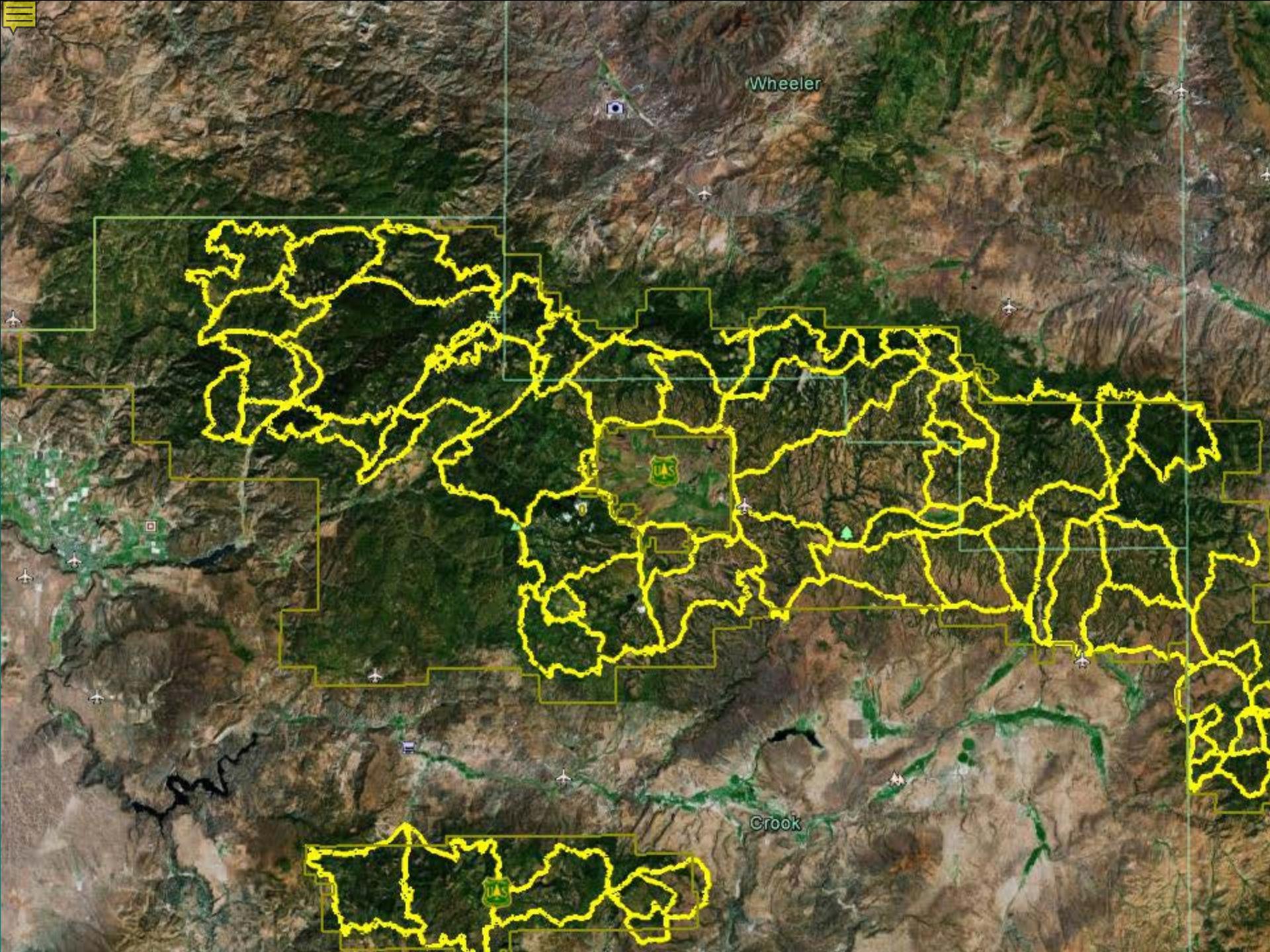
In anticipation of wildfire, focus on

1. Protection – of WUI, highly valued resources, infrastructure
2. Restoration – set up landscapes to *include* wildfire as a restoration agent





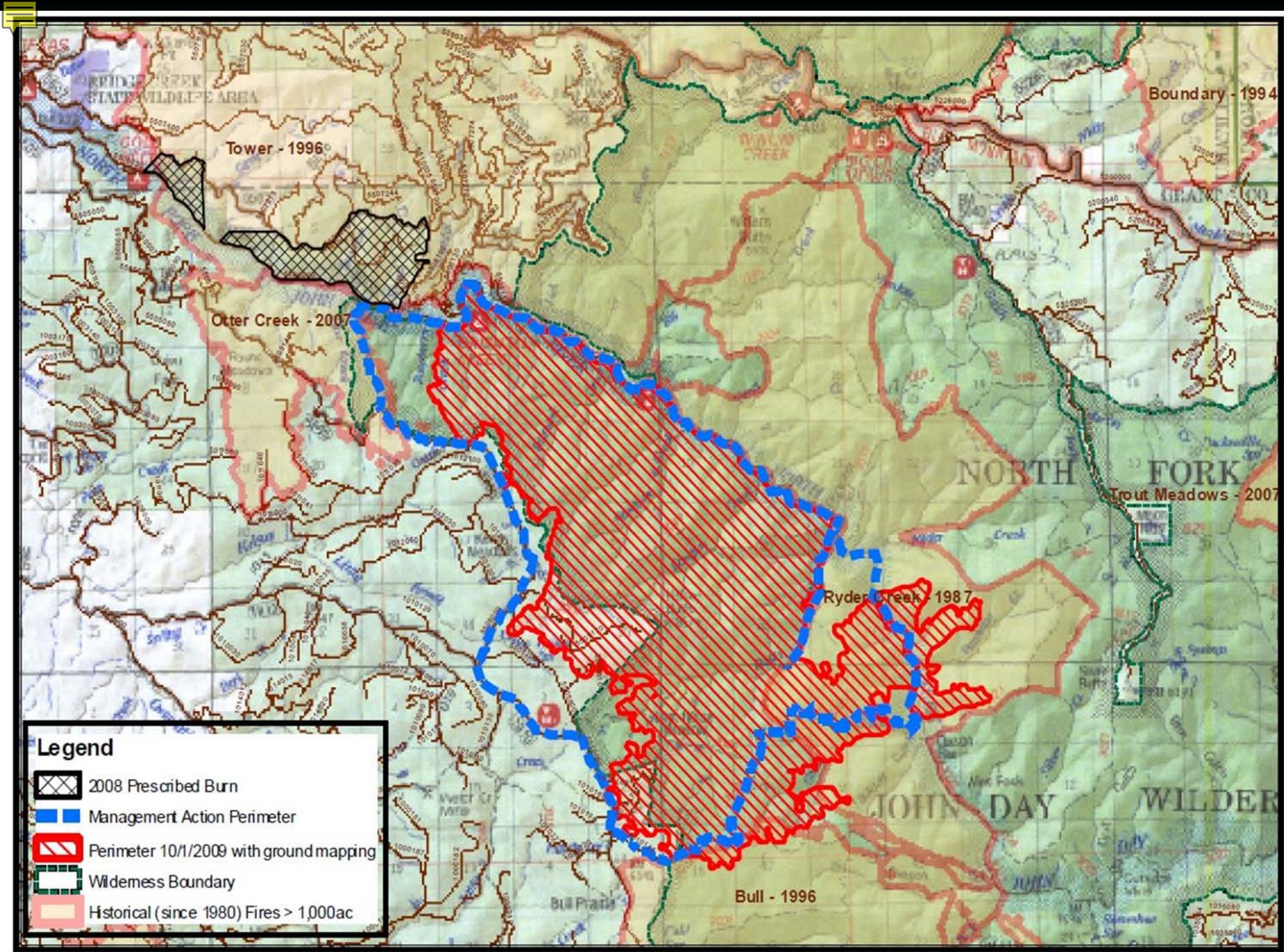














- Wildfires on Federal forests are larger and more expensive than in the past
- Our current programs and approaches can't catch up to backlog
- Wildfire is inevitable – can we use it?
- Strategic fuels treatments can set up landscapes for safer, cheaper, and larger wildfires