

# Nevada Division of Forestry Fire Protection

Statewide Wildland Fire  
Hazard Mitigation



# NDF Wildfire Hazard Mitigation Program

- Community Protection from Wildfire
- Nevada Community Wildfire Protection Plans
- Fuels Mitigation
- Wildfire Rehabilitation
- Landscape Restoration

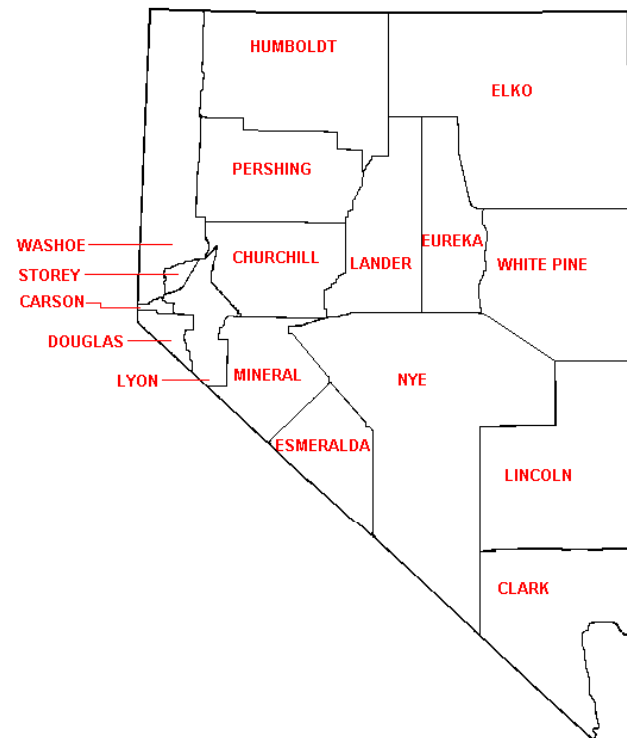
# Community Protection from Wildfire

- Fuel Reduction
- Develop / Improve Water Delivery Systems
- Building Suppression Capability
  - Equipment
  - Training
- Communication
  - Preparedness
  - Emergency
- Evacuation
- Shelter



# Nevada Community Wildfire Protection Plans (CWPP)

- 266 Communities at Risk from wildfire
- 218 CWPP's completed ranking communities at:
  - Extreme
  - High
  - Moderate
  - Low



# County CWPP's

|             | Extreme | High | Moderate | Low | Total |
|-------------|---------|------|----------|-----|-------|
| Carson City | 0       | 1    | 2        | 1   | 4     |
| Churchill   | 0       | 1    | 2        | 3   | 6     |
| Clark       | 4       | 3    | 5        | 18  | 30    |
| Douglas     | 1       | 16   | 7        | 4   | 28    |
| Elko        | 3       | 13   | 15       | 4   | 35    |
| Esmeralda   | 0       | 0    | 4        | 1   | 5     |
| Eureka      | 0       | 1    | 3        | 2   | 6     |
| Humboldt    | 0       | 1    | 6        | 3   | 10    |
| Lander      | 0       | 2    | 1        | 3   | 6     |
| Lincoln     | 2       | 1    | 4        | 0   | 7     |
| Lyon        | 0       | 1    | 8        | 4   | 13    |
| Mineral     | 0       | 1    | 4        | 1   | 6     |
| Nye         | 2       | 1    | 4        | 3   | 10    |
| Pershing    | 1       | 1    | 6        | 0   | 8     |
| Storey      | 1       | 2    | 2        | 0   | 5     |
| Washoe      | 2       | 4    | 20       | 5   | 31    |
| White Pine  | 0       | 1    | 7        | 0   | 8     |
|             | 16      | 50   | 100      | 52  | 218   |

# Rural Assessment

- Initial CWPP assessment covered communities within 3 of the 4 the Wildland Urban Interface (WUI) conditions:
  - Interface
  - Intermix
  - Occluded
- Second assessment will cover the Rural condition of the WUI

# 2007 Nevada Fuel Conditions



Near Caliente

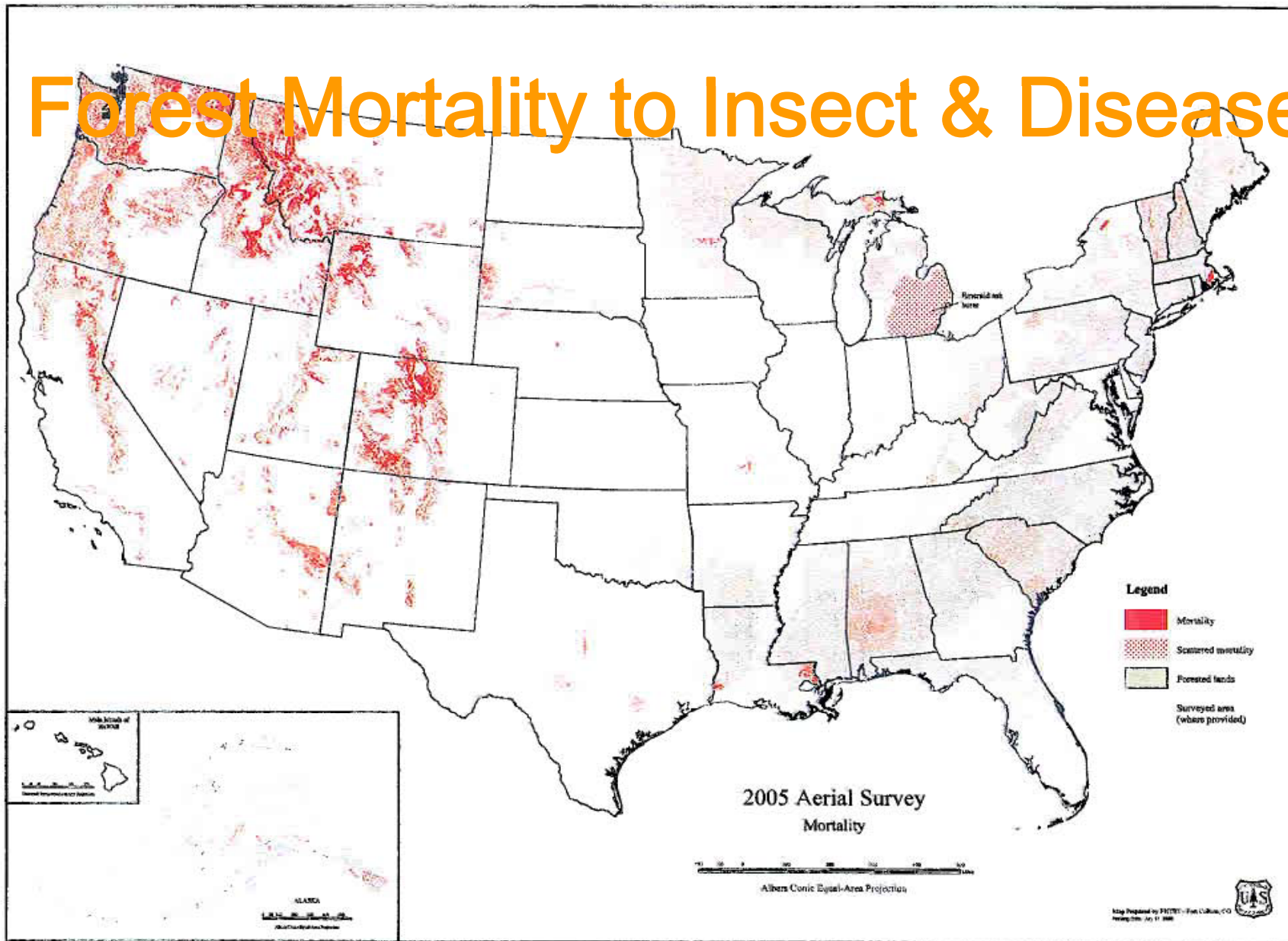
# Nevada's Forests & Woodlands

- Fuel loading ranging from 1000 to 1500+ lbs per acre in the grass and shrub component to 25 tons per acre in the forested areas.
- Pinyon/Juniper woodlands and sagebrush areas are showing stress due to drought and insect invasions.





# Forest Mortality to Insect & Disease

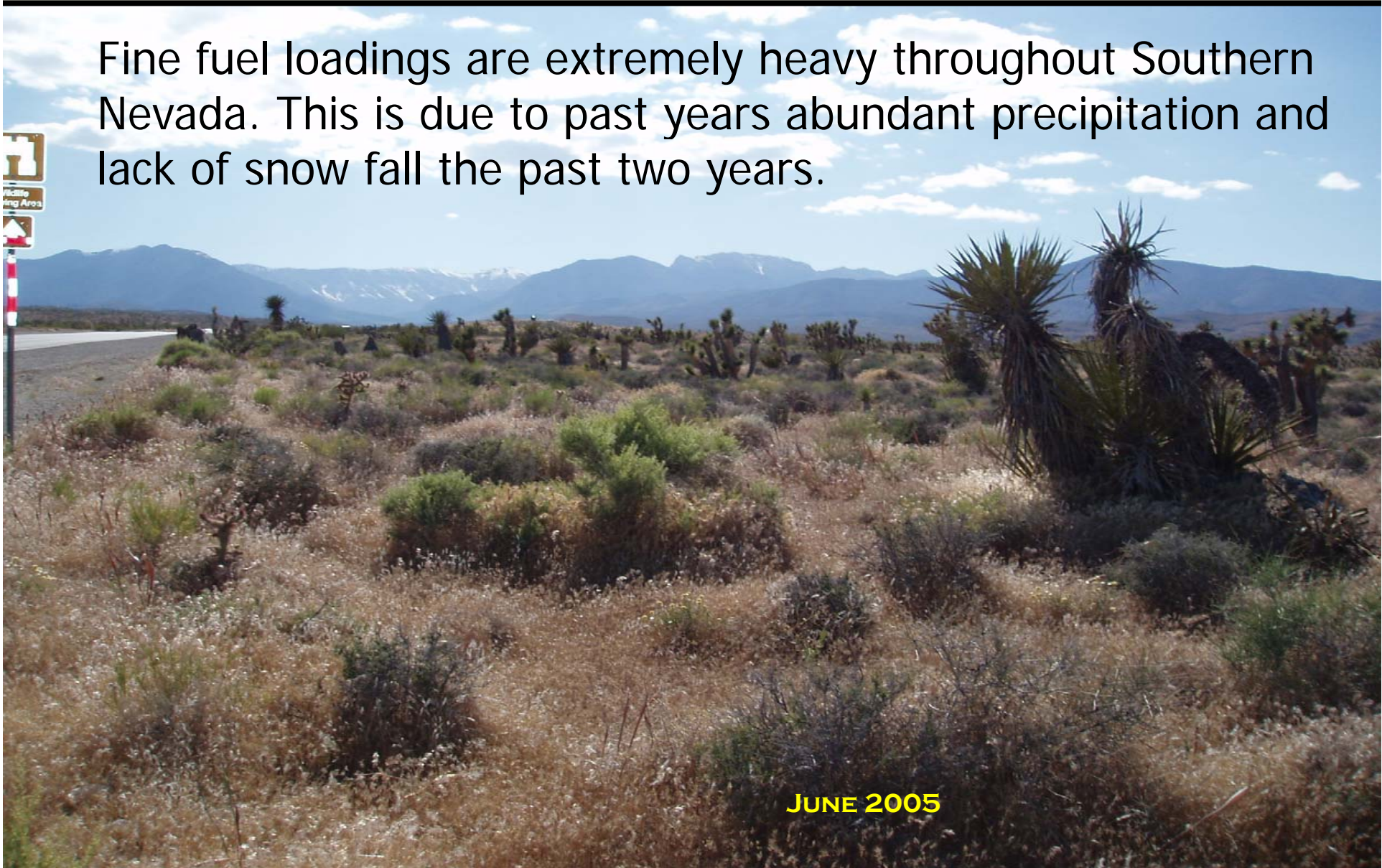


# **Attacks of Pinyon Pine Ips Beetle have left standing dead trees.**



# Southern Nevada

Fine fuel loadings are extremely heavy throughout Southern Nevada. This is due to past years abundant precipitation and lack of snow fall the past two years.



**JUNE 2005**

# Northern Nevada

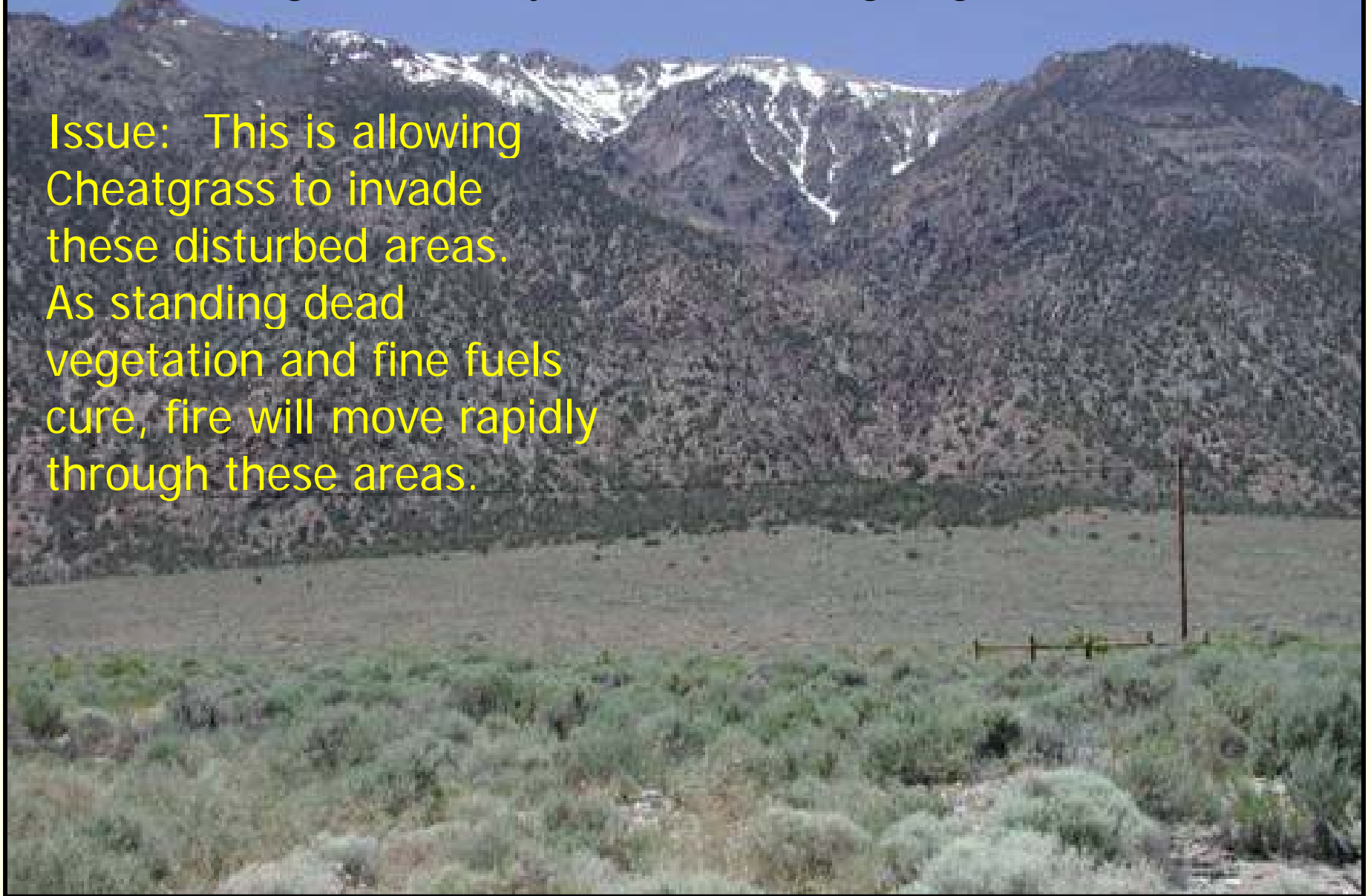
Winnemucca fine fuel loads are ranging between 1 ton per acre to well over 1.5 tons per acre dry weight compared to 200-400 pounds in a "normal" year.

The heavy growth of Cheatgrass is beginning to create a dense layer of dead vegetation in many areas.



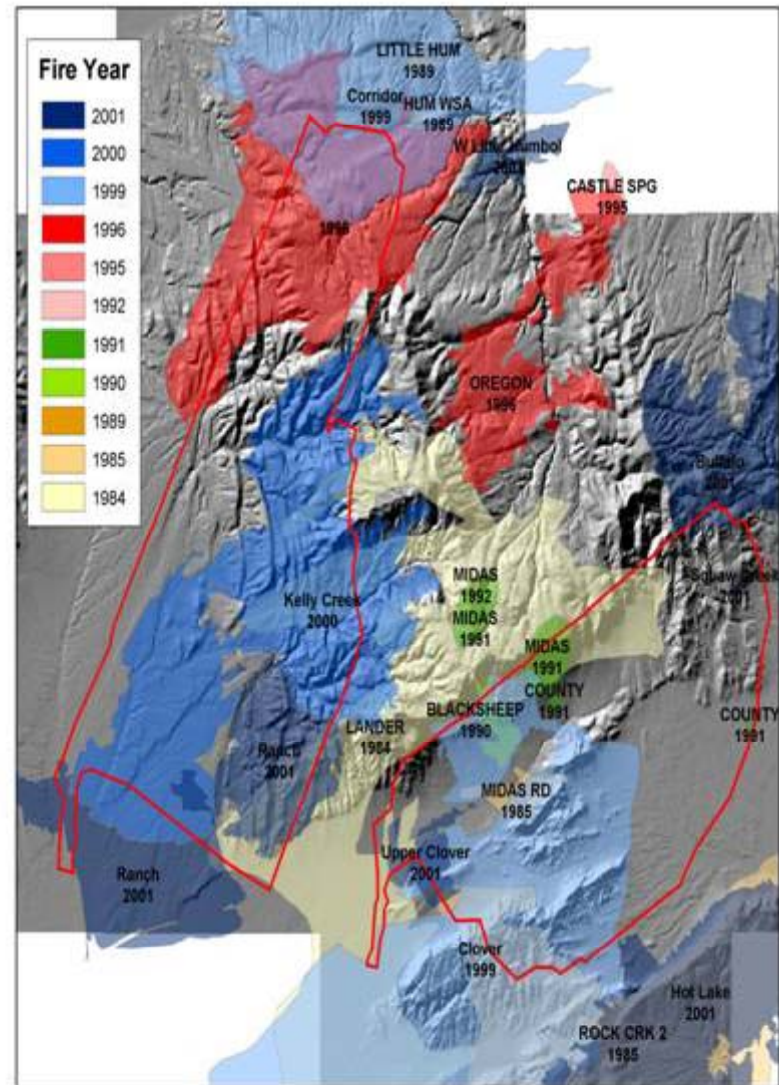
Aroga moth infestations as found in previous years are resulting in mortality in the basin big sage.

Issue: This is allowing Cheatgrass to invade these disturbed areas. As standing dead vegetation and fine fuels cure, fire will move rapidly through these areas.

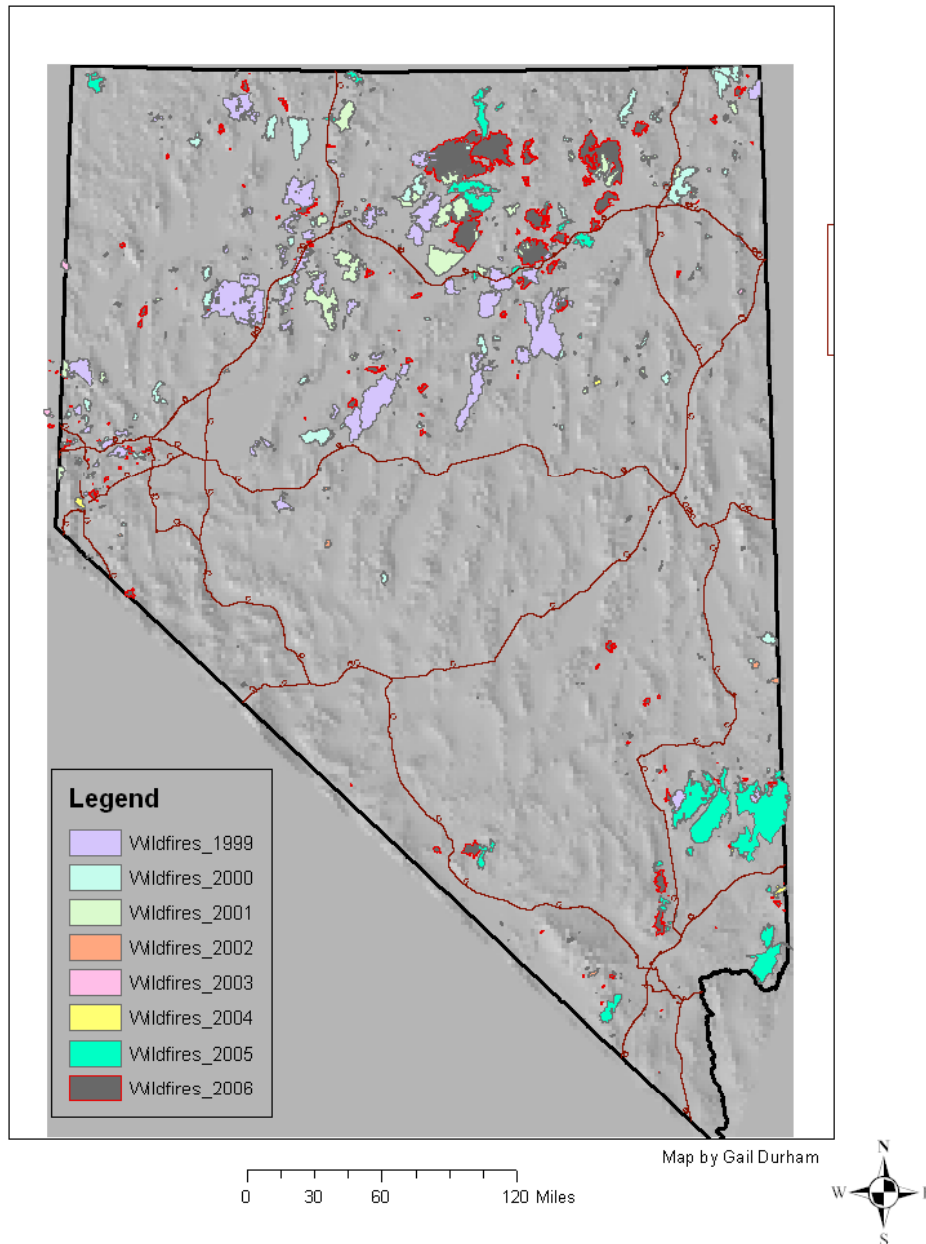


# Cheatgrass Concern

Cheatgrass thrives on disturbances like wildland fire. The more a landscape burns, the more dominant Cheatgrass becomes and the more acres of land that are converted to it over time.



## 2006-1999 Composite NV Fire Map



# Large Fires in Nevada

Continue the cycle of  
Native Plant conversion  
to Invasive Grass  
Species

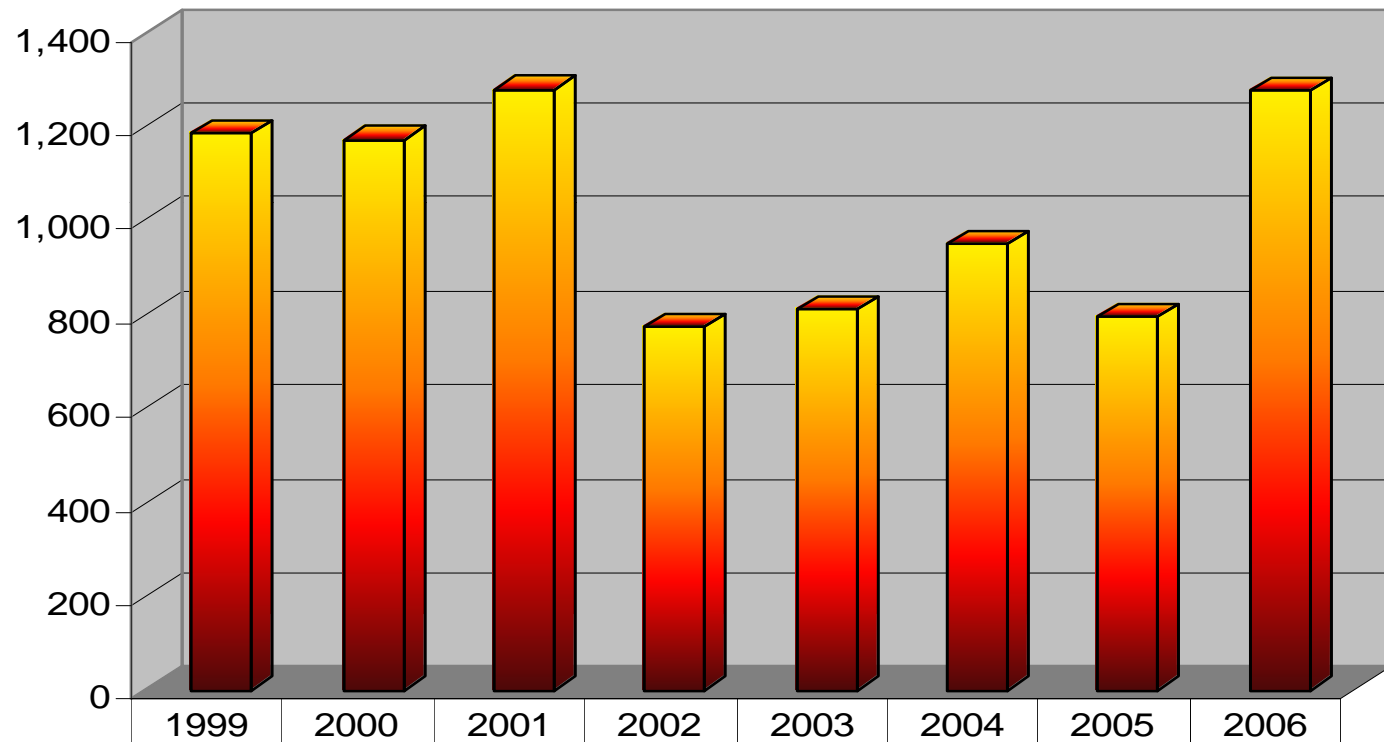
# Trends show continued loss of acres to wildfire

Out of the 10 worst fire seasons since 1960, in terms of acres burned, 5 of those have occurred in the past 7 years. This past fire season there were 1,274 wildland fires that burned 1,348,871 acres.



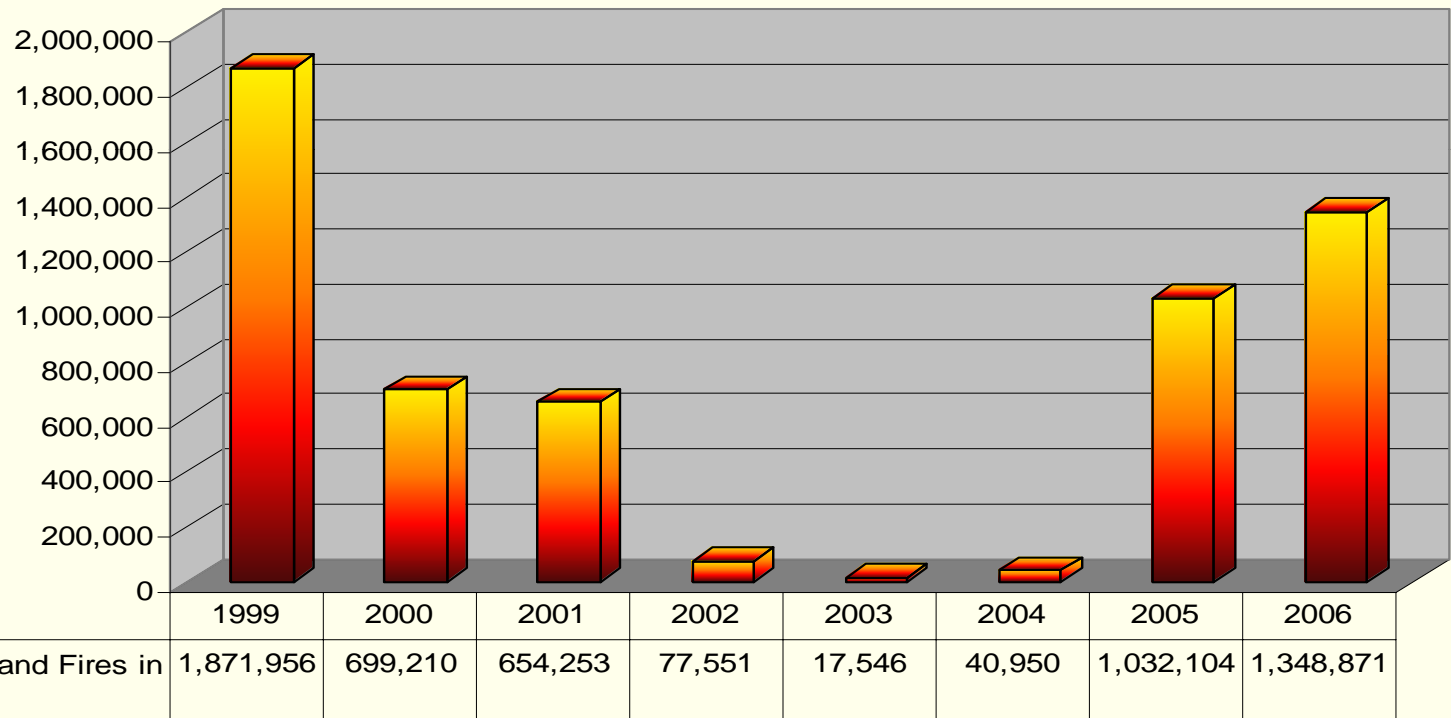


# Number of Wildland Fires



|  | 1999  | 2000  | 2001  | 2002 | 2003 | 2004 | 2005 | 2006  |
|--|-------|-------|-------|------|------|------|------|-------|
| Number of Wildland Fires in Nevada by Year | 1,185 | 1,171 | 1,277 | 771  | 811  | 950  | 794  | 1,274 |

# Acres Burned by Wildland Fire



Acres Burned by Wildland Fires in Nevada by Year

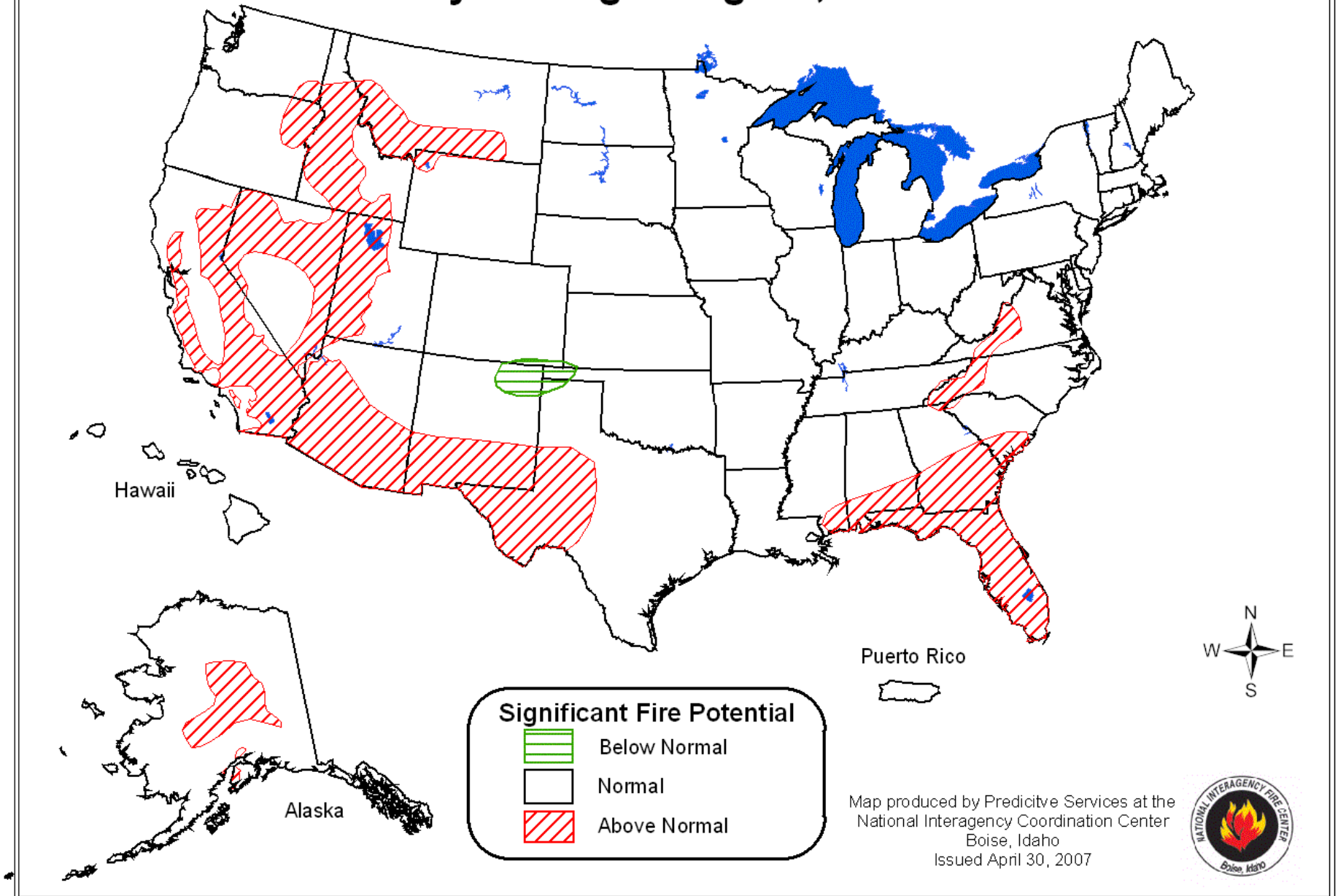
# Wildland Fire Outlook

## May through August, 2007

NEVADA: Potential: Normal to Above Normal.

A relatively dry winter and return to drought conditions, combined with two previous wet winters, has left large amounts of carryover grass across much of the state. Southern Nevada still has large pockets of cured standing cheat grass from 2005. Below normal winter snow pack, earlier than normal snowmelt, and an early green-up at elevations below 6000-7000 feet, will likely cause the onset of fire season to be 3-4 weeks early this year. Another active and prolonged grassland fire season is expected, especially if monsoon moisture is absent. High elevation areas are likely to have lower than normal soil moistures and dead fuel moistures, especially in the north. Insect and frost killed vegetation will increase fire risk in affected timber and shrub regimes across the mid- and upper elevations of the state.

# Seasonal Wildland Significant Fire Potential Outlook May through August, 2007

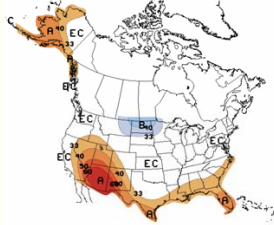


# Weather

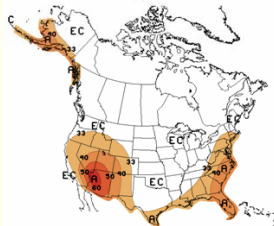
Drought conditions have been expanding and intensifying over much of the West since last autumn. Many areas, including Alaska, have exhibited much below average snow pack through the winter and early spring months. Drought relief is not expected in these areas this summer (see images below).

The NOAA Climate Prediction Center seasonal outlooks for May-July 2007 predict a high likelihood of above normal temperature in the Southeast, Gulf Coast and Southwest, as well as southern and western Alaska. Increased likelihood of below normal temperatures is predicted for the northern plains states. For June-August 2007, the likelihood of above normal temperatures covers much of the West, Southeast, East Coast and southern Alaska. There is an increased likelihood for drier than normal conditions over portions of the interior West (see images at left).

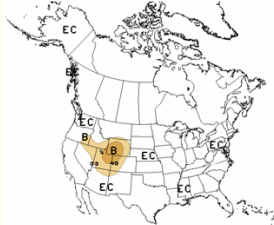
**Temperature Forecasts**  
May-July 2007



June-August 2007



**Precipitation Forecasts**  
May-July 2007



June-August 2007

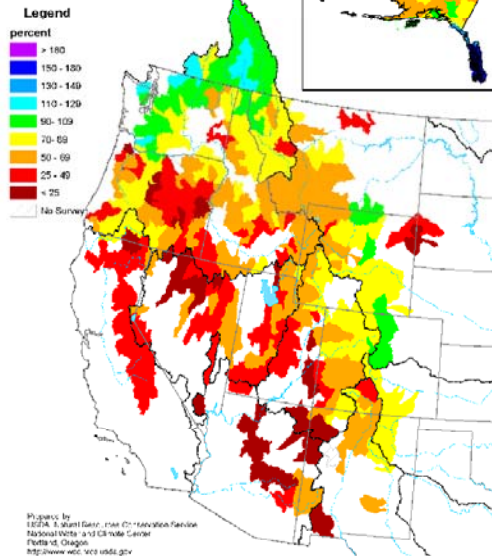


A = Above Normal  
B = Below Normal  
N = Normal  
EC = Equal chances of above, below, or normal conditions

Numbers represent the probability of occurrence.

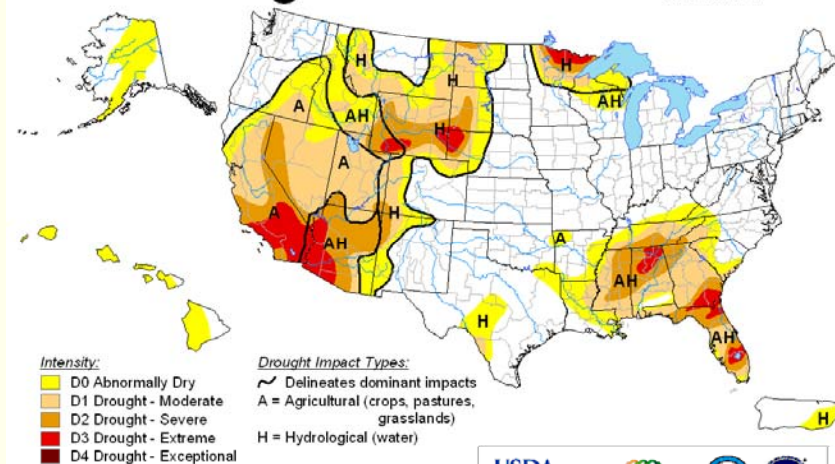
[http://www.cpc.ncep.noaa.gov/products/predictions/long\\_range/lead04/off\\_index.html](http://www.cpc.ncep.noaa.gov/products/predictions/long_range/lead04/off_index.html)

**Mountain Snowpack**  
as of April 1, 2007



Prepared by  
12228 1st Street East, Suite 201 - Tukwila, WA 98148  
National Weather Service  
Portland, OR  
<http://www.wcc.ncep.noaa.gov>

**U.S. Drought Monitor** April 24, 2007  
Valid 8 a.m. EDT



**Intensity:**  
 D0 Abnormally Dry  
 D1 Drought - Moderate  
 D2 Drought - Severe  
 D3 Drought - Extreme  
 D4 Drought - Exceptional

**Drought Impact Types:**  
 ~ Delineates dominant impacts  
 A = Agricultural (crops, pastures, grasslands)  
 H = Hydrological (water)

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://drought.unl.edu/dm>



Released Thursday, April 26, 2007  
Author: David Miskus, JAWF/CPC/NOAA

# Wildfire Rehabilitation

- Immediately implement measures to mitigate conditions that threaten Public Safety and further Landscape Degradation:
  - Suppression related damage
  - Ash & Dust Hazards
  - Stream Bank stabilization
  - Mud & Debris flow

# Landscape Restoration

- Healthy Ecosystems
  - Forest & Range Health
  - Functional Watersheds
  - Strong Native Plant Communities
- Low Intensity Wildfire
  - Beneficial to Native Plant Communities
  - Non-threatening to Communities