

Restoring Southwestern Forests – A 21st Century Challenge

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Overview

- Natural Conditions in the Southwest
- Social and Economic Challenges
- Moving Forward – Landscape Restoration



Unhealthy Forest Conditions

- Overstocked forests
- Catastrophic Fires
 - 2011 Fire Season – Over 1.1 million acres (477,000 ha) burned on SW National Forest System lands
 - Nearly 20,000 people were assigned to fires in the SW
- Invasive species outbreaks



Wallow Fire - 2011

- Started May 29, 2011
- Largest fire in Arizona history: 538,049 acres (217,741 ha)
- Over \$30 million in emergency rehabilitation – largest in Forest Service history



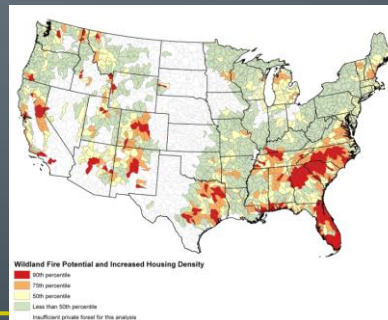
Las Conchas Fire - 2011

- Started in the Jemez Mountains, west of Santa Fe on June 26th
- Grew to over 40,000 acres (16,200 ha) in less than 12 hours
- Total of 156,000 Acres (~63,000 ha) across National Forest, National Park, 4 Pueblos, Valles Caldera, and private lands
- Significant flooding and watershed impacts to many communities



Communities at Risk

- More people living in the WUI
 - In the western United States, the area of wildland-urban interface grew by 61 percent between 1970 and 2000.
 - Between 1990 and 2000, the number of housing units in the wildland-urban interface rose by 68 percent.
 - 21.7 million acres (8.7 million ha) of rural lands located within 10 miles of national forests and grasslands across the conterminous United States are projected to undergo increases in housing development by 2030.
- Public water supplies threatened
 - Sixty-six million people rely on a national forest as their water source.
 - Watersheds on national forests and grasslands are the source of 20 percent of the nation's water supply, a value estimated to exceed \$27 billion per year.



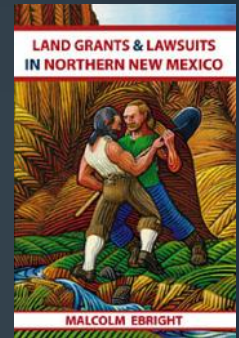
Climate Change

- Hotter, drier conditions
- Less snow-pack
- Wildlife impacts
- Longer, more intense fire seasons
- Narrowing windows for prescribed burning
- Changing forests after fires
 - New Study from Univ of Arizona and USGS: Widespread tree mortality from fires and insects/diseases likely will cause substantial changes in forest and species distributions.



Social, Cultural and Economic

- Community reliance on forests
 - Many communities in Northern NM rely on firewood for heating and cooking
 - Sacred sites, special places
 - Acequias (irrigation ditches), Grazing, Hunting
- Complexity of land tenure
- Changing demographics and increasing public demands
 - New Mexico is a “majority minority” state. Over 46% of the state’s population is Hispanic and over 10% is Native American
- Economic limits – loss of forest industry, now paying \$500+ per acre for treatments

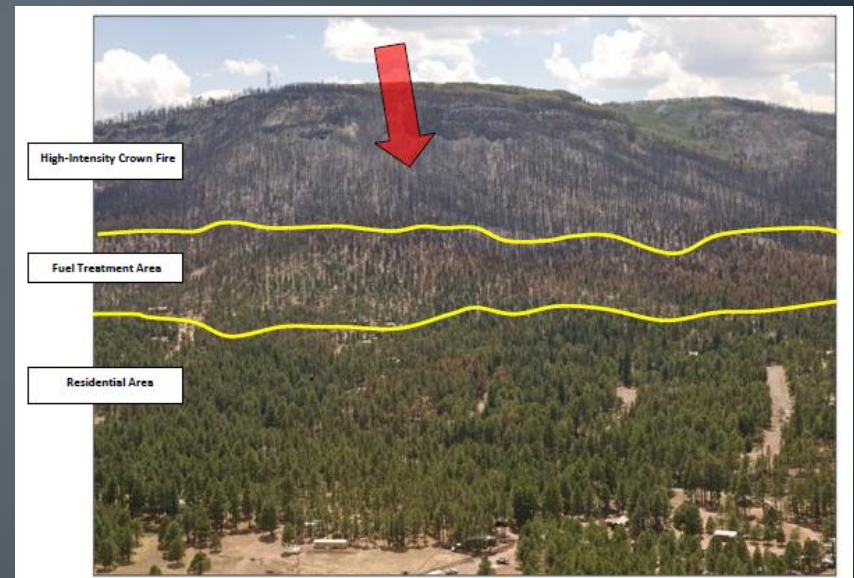


Landscape Restoration

- The scale of the problem requires a large scale solution
- Need for environmental analysis at a much larger scale
- Challenges require work across boundaries
- Need for industry to help reduce treatment costs – now paying about \$500/acre (~\$1,200/hectare)

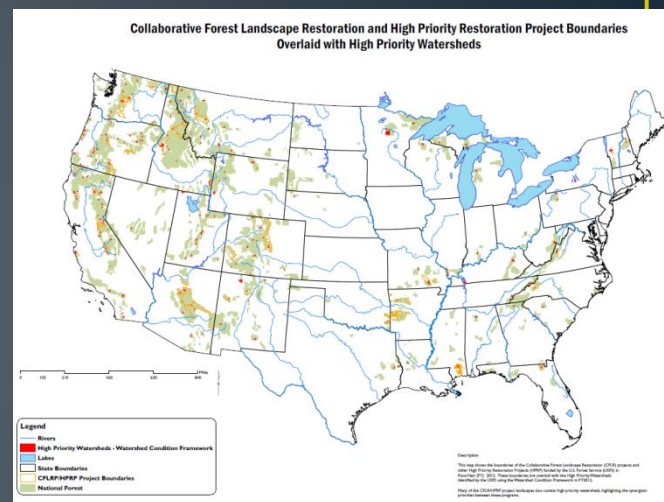
White Mountain Stewardship

- 10-year stewardship contract
- First step in Southwest region to larger-scale restoration project
- Treatments proved effective in saving communities during Wallow Fire.



Collaborative Forest Landscape Restoration Program

- Congress established the Collaborative Forest Landscape Restoration Program in 2009 to encourage the collaborative, science-based ecosystem restoration of priority forest landscapes.
- The Program expands partnerships to:
 - encourage ecological, economic, and social sustainability
 - leverage local resources with national and private resources
 - restore forest ecosystems and reduce the risk of uncharacteristic wildfire
- Up to \$40 million/year is authorized. Currently, there are 20 forest and watershed restoration projects across the country





Four-Forest Restoration Initiative

- Collaborative project to restore 2.4 million acres (~1 million hectares) across 4 national forests in Arizona
- Largest stewardship project in Forest Service history
- Environmental analysis on 1 million acres (400,000 hectares)



Southwest Jemez Mountains

- Long-term collaborative effort to restore 210,000 acres (85,000 ha) in the southwest Jemez Mountains.
- The area comprises the Valles Caldera National Preserve, a portion of the Santa Fe National Forest, and some state, private and tribal lands.



Unanswered Questions

- Will the economics of restoration pan out? How do we add value to low-value material?
- Do we have the skills and capacity to deliver restoration effectively?
- How will the public react to more smoke in the air and work in the forest?
- How do we prioritize landscape projects? How many landscape projects can we support?