

Restoring Southwestern Forests – A 21st Century Challenge

WATER & NATURAL RESOURCES
COMMITTEE
JULY 25, 2013

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 burned on SW National Forest System lands
 - 2012-Over 460,000 acres burned
 - FY 2013-Over 154,000 acres
- Invasive species outbreaks



Las Conchas Fire - 2011

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



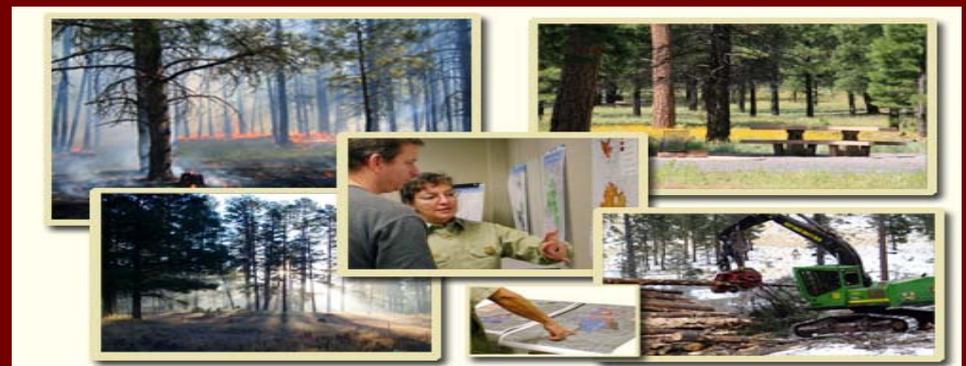
Landscape Restoration Requires

- Landscape scale analysis and treatment of thousands of acres to make a difference
- Need for environmental analysis at a much larger scale
- Work across boundaries (all lands)
- Collaboration with all potential partners
- Encourage Industry (accelerate pace of restoration)

Four-Forest Restoration Initiative



- Collaborative project to restore 2.4 million acres across 4 national forests in Arizona
- Largest stewardship project in Forest Service history
- Environmental analysis on 1 million acres



Southwest Jemez Mountains

- Long-term collaborative effort to restore 210,000 acres 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.

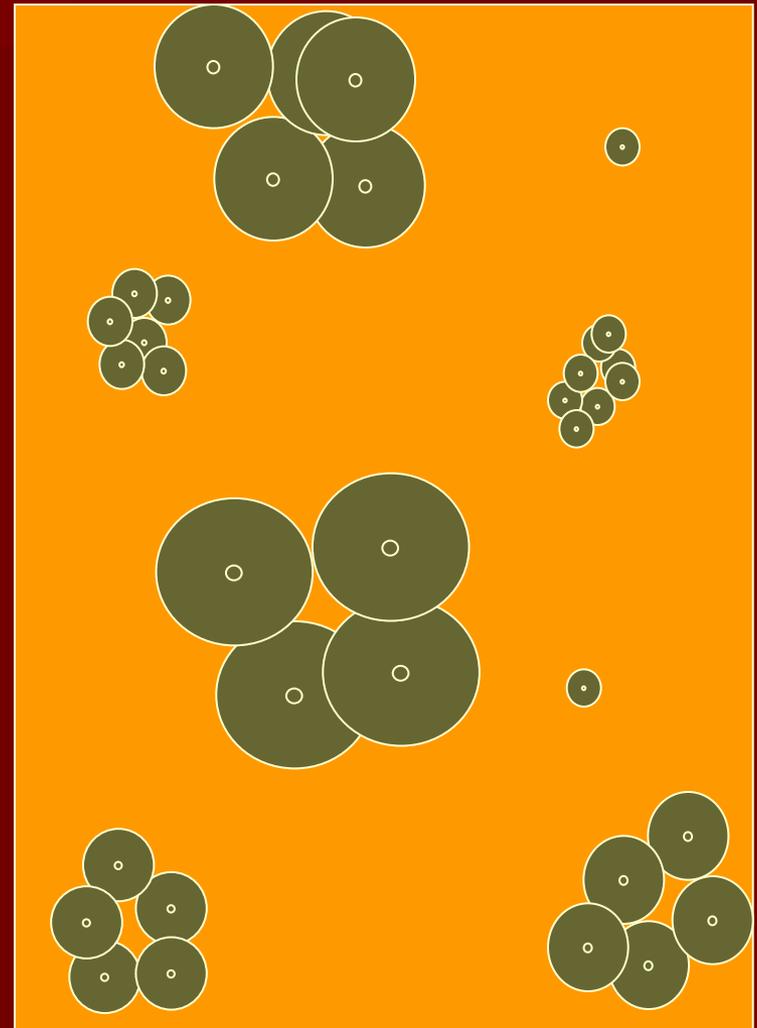


RESTORATION TO DESIRED CONDITION

- Restoration is any action that moves from current overstocked conditions to more open, uneven aged forest conditions "Desired Conditions".
- Desired Conditions paint a picture of how we want Forests to look and function

Elements of Desired Condition

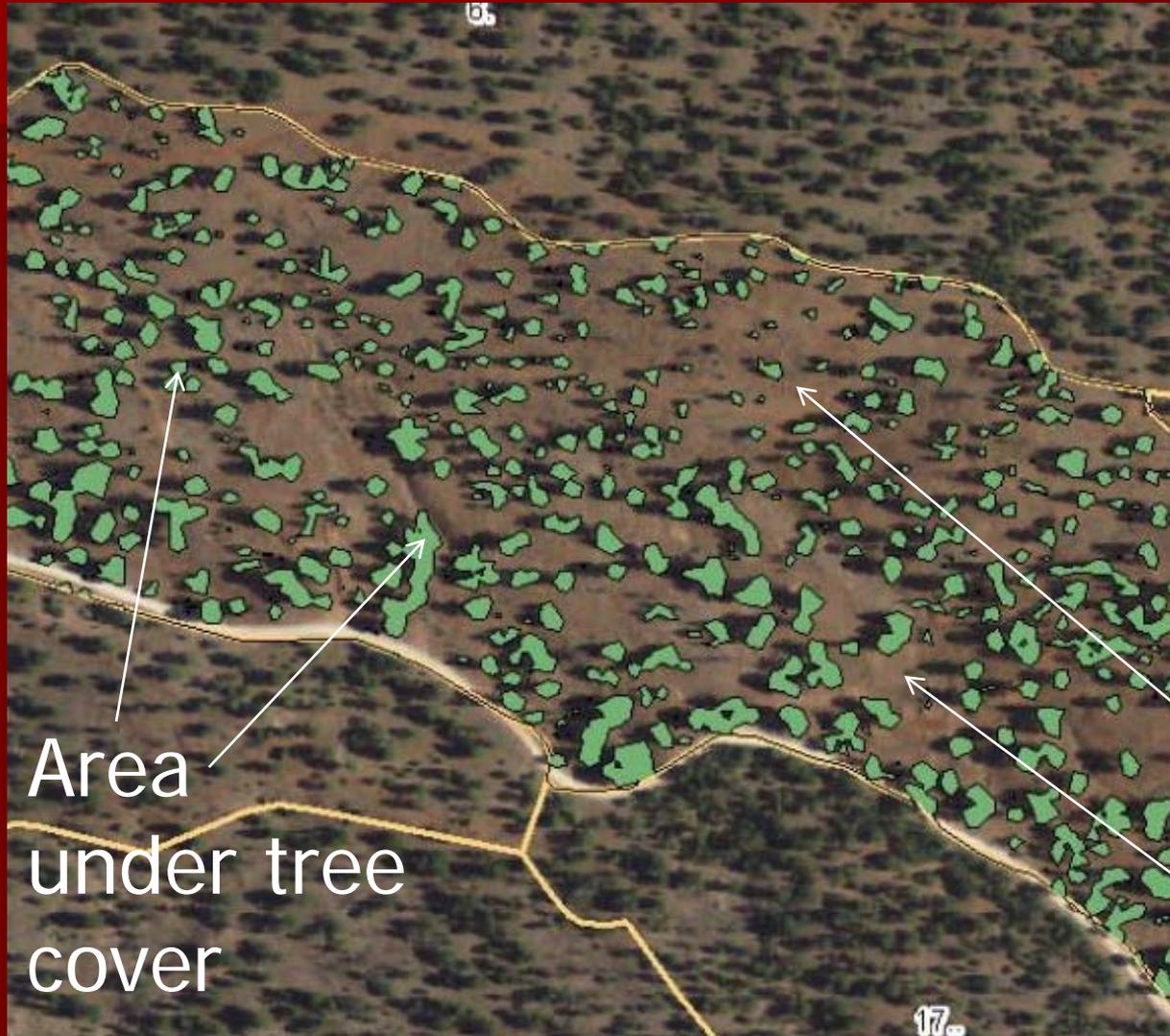
- Trees grouped with interlocking crowns
- Grass-forb-shrub openings between tree groups
- All age classes and as much old forest as is ecologically sustainable
- High interspersion of age classes



Desired Forest Conditions



Openness Variability



Area
under tree
cover

72% of area is open
grass/forb/shrub

28% is under mid-
old tree cover

Open area,
grass/forb/
shrub





Challenges

- Desired Conditions may not be attainable in a single treatment
- Operational feasibility (funding, workforce, industry capacity, etc.) may constrain our ability to achieve desired conditions everywhere
- Necessitates prioritizing landscapes and strategies with partners for achieving desired conditions
- Maintenance of desired conditions
- Smoke and air quality concerns

Outcomes of Desired Conditions

- Reduced severity of fire effects
- Reduced fire hazards and increased flexibility for managing fires
- Increased resilience to climate variability and change, insects, disease





Outcomes (cont)

- Sustainable old growth condition
- Restored hydrologic function
- Sustainable wood supply
- Improved forage production
- Enhanced visual quality
- Improved plant and animal habitat, biodiversity, foodwebs

Summation

- Small groups of trees with interlocking crowns
- Scattered single trees
- Grass-forb-shrub open interspaces between groups
- Snags, logs, woody debris
- Spatial and temporal distribution of the above

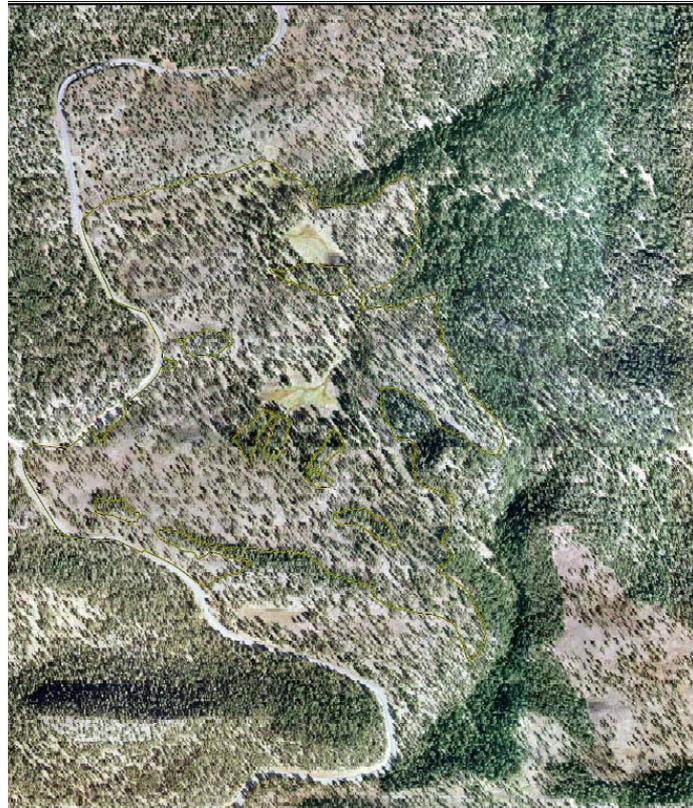


Eagar South PFA Comparison



APACHE SITGREAVES NATIONAL FOREST
SPRINGVILLE RANGER DISTRICT
EAGER SOUTH UNIT 1
PRE-TREATMENT IMAGE, SUMMER 2007
NORTHERN COCHAVIL POST FLEDGLING AREA (PFA)

12,400 MAP SCALE
0 250 500 1,000 1,500 2,000 Feet
0 0.05 0.1 0.2 0.3 0.4 Miles



NATIONAL FOREST
SPRINGVILLE RANGER DISTRICT
EAGER SOUTH UNIT 1
AGE EARLY FALL 2008
K POST FLEDGLING AREA (PFA)

12,400 MAP SCALE
0 250 500 1,000 1,500 2,000 Feet
0 0.05 0.1 0.2 0.3 0.4 Miles



APACHE SITGREAVES NATIONAL FOREST
SPRINGVILLE RANGER DISTRICT
EAGER SOUTH UNIT 1
POST WALLOW FIRE (MAGE) LATE SUMMER 2011
NORTHERN COCHAVIL POST FLEDGLING AREA (PFA)

12,400 MAP SCALE
0 250 500 1,000 1,500 2,000 Feet
0 0.05 0.1 0.2 0.3 0.4 Miles

CONCLUSION

- We must collaboratively partner with all land owners in prioritization and treatment of lands
- Encourage infrastructure to accelerate pace of restoration
- Must think and act on Landscape Scale due to the magnitude of departed forests
- Move toward Desired Conditions