





#### Agenda

- 1) Introductions
- 2) Background
- 3) Power Point with Issues, Trends, Recommendation
- 4) Q&A
- 5) Next Steps

#### Mixed Conifer Working Group...

- Formed after workshop 10/09
- Diverse participation
- Open table, all are welcome



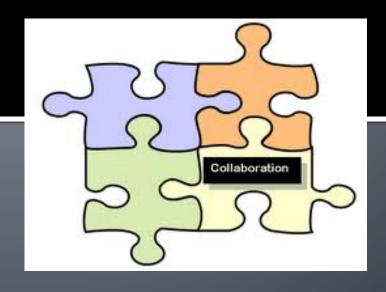
## The Workgroup now wants to hear from a broader community!

- Are the findings so far on the right track?
- Does the vision statement developed reflect your values?
  - Do you have other thoughts, questions or concerns?
    - What are the Workgroup's next steps?

# Approaches of the Working Group

- Learning (Field Trips, Speakers, Polygons)
- Collaboration
- Listening to all interests
- Supporting Adaptive Management (Learning by Doing)



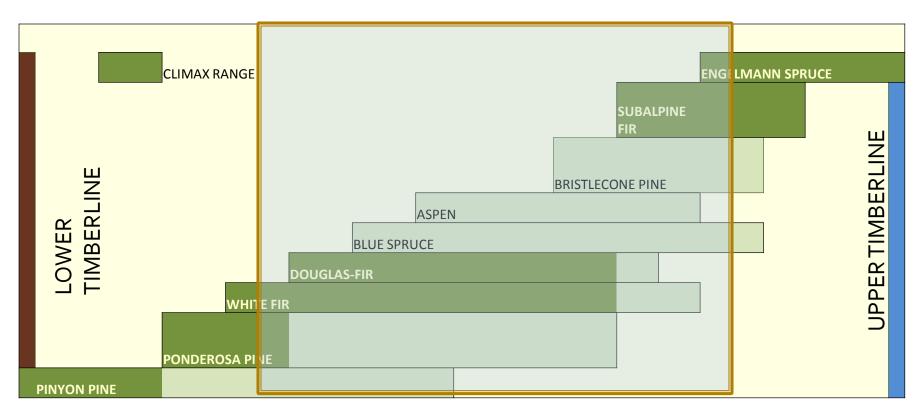


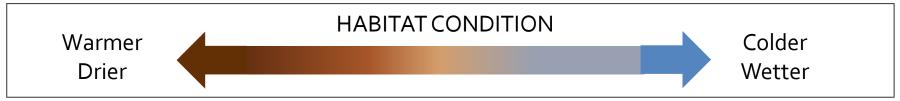
## What are Mixed-Conifer forests, and why should we be concerned?

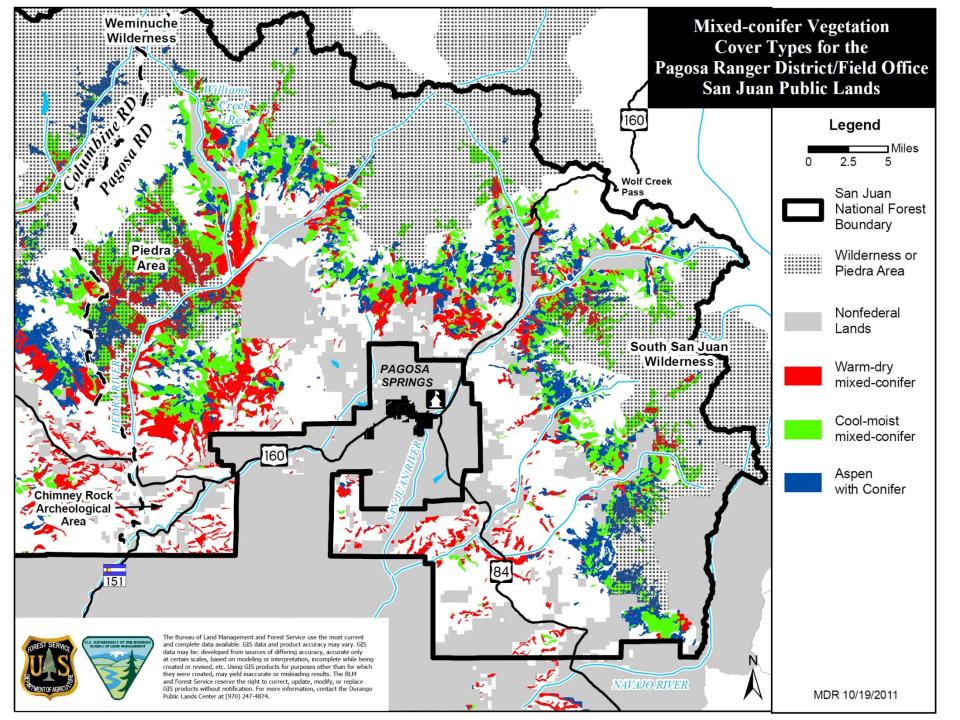
- Much of the forested land around Pagosa Springs; 2<sup>nd</sup>-most abundant type of forest (after spruce-fir) on <u>Pagosa Ranger District</u>
- Managed by the PRD of the San Juan National Forest/USFS, and private land owners with the Colorado State Forest Service
- Are at ~7,500 10,000 feet in elevation and comprise 144K acres, or 25%, of the Pagosa Ranger District (aspen w/ conifer = 51K ac/12%)
- Are the most diverse and complex forest environment in southwest Colorado; have management challenges
- Two sub types: warm-dry and cool-moist

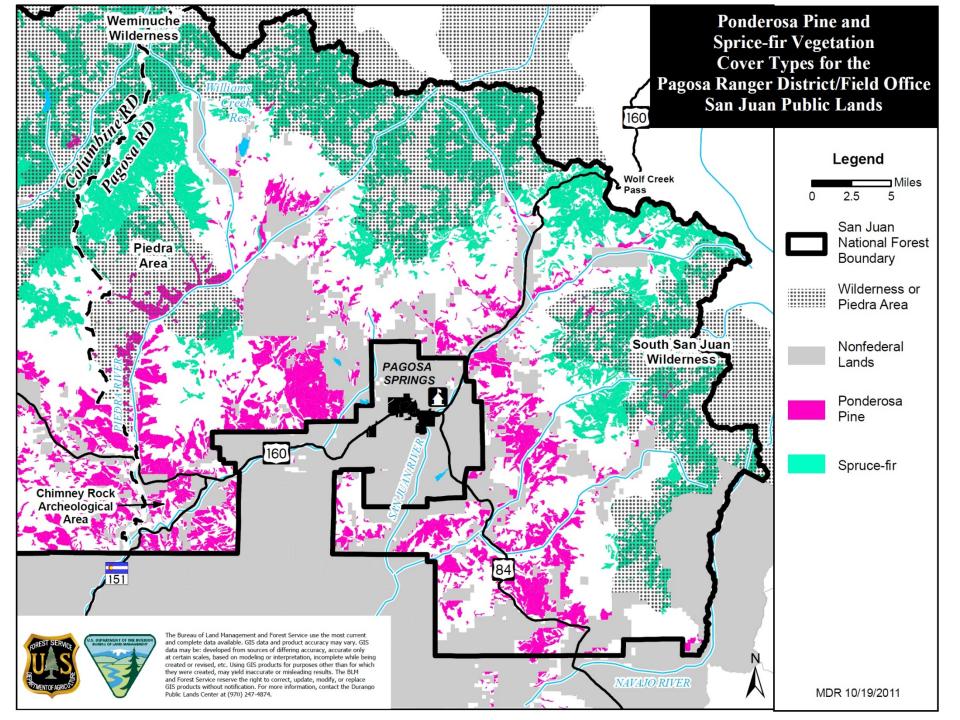
#### **CENTRAL AND SOUTHERN ROCKY MOUNTAINS**

Relative ecological position and extent of occurrence of major species.











**Ponderosa Pine** 



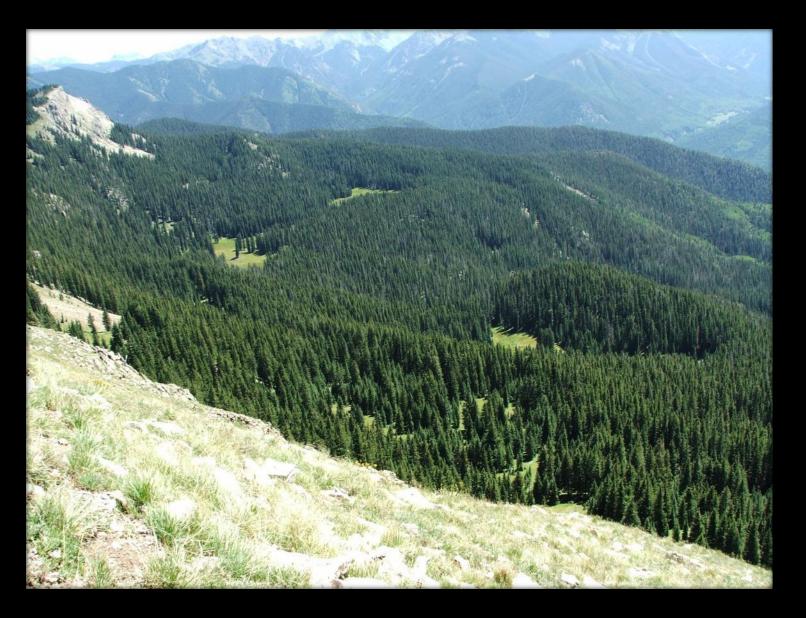


Warm-Dry Mixed Conifer

**Cool-Moist Mixed Conifer** 

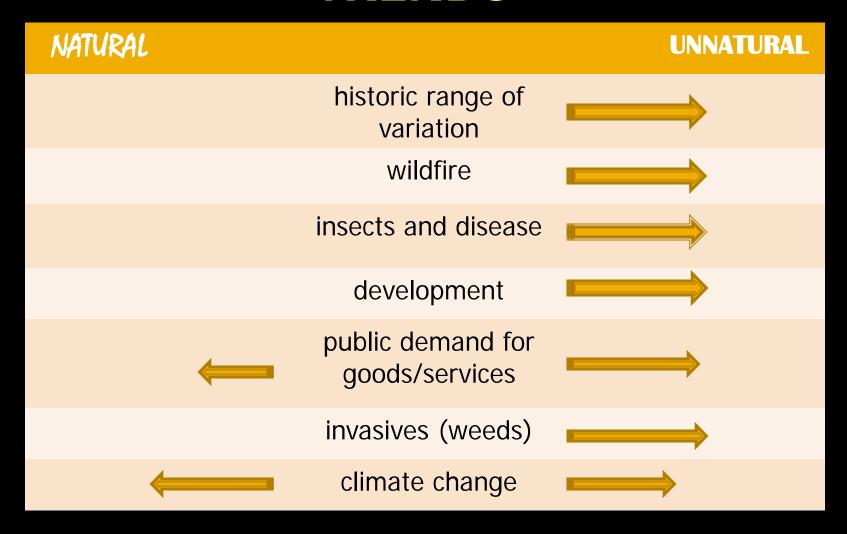


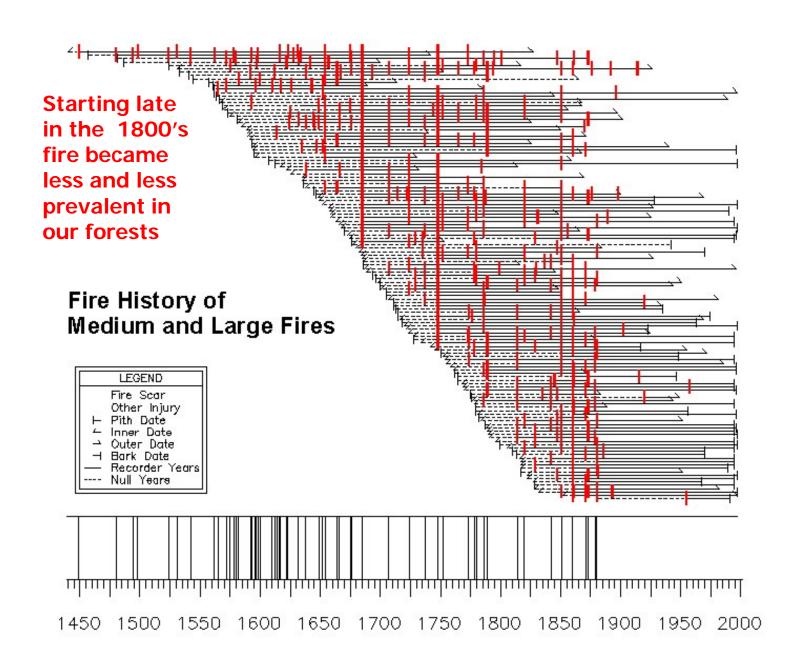
Aspen with Conifer



Spruce-fir

#### **TRENDS**





## \*\* TRENDS: Historic Range of Variation (HRV) \*\*

HRV: the range of variability in structure, composition, function, and dynamics of ecosystems prior to Euro-American settlement



135 years of fire exclusion =

- dense forests
- ladder fuels
- high competition for moisture, nutrients
- "beetle bait"
- speciesexpansion/contraction
- much live & dead fuel
- homogeneity (sameness)

#### \*\* TRENDS: Wildfire \*\*

- More fuels = hotter fires
- More ladder fuels & more dense, contiguous stands, leading to more <u>stand-replacement</u> fire
- These fires:
  - harder to control
  - have greater ecological severity
  - pose greater risk to people and property
  - draw resources away from other tasks
  - cost MORE
  - produce more smoke
  - increase sediment
- Affects recreation, esthetics, economies





Painting hillsides with pink slime from expensive aircraft on hard-to-control wildfires = bad!

#### \*\*TRENDS: Bugs and Crud (insects and

disease) \* \*

 More "beetle bait" (i.e., "host habitat) increasing risk for epidemics

- More "sameness" leading to larger-scale and longer duration Outbreaks
- Recent/current epidemic-scale
  mortality in white fir, Douglas-fir, aspen, spruce
- Interplay with HRV departure, wildfire risk, climate change, invasives

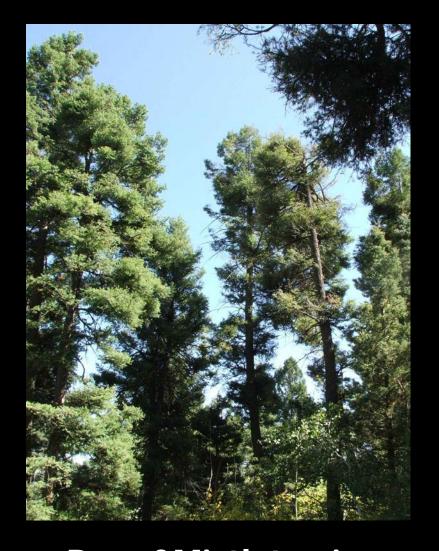
This concerns and impacts forest managers, the timber industry, those interested in tourism and wildlife, home owners, local residents, and entire communities





Spruce beetle kill: macro & micro views

Examples of bugs and crud!



Dwarf Mistletoe in Douglas-fir



Dead white fir due to beetles & diseases

More bugs/More crud!



**Aspen Decline** 

#### \*\* TRENDS: Development [ WUI ] \*\*



- -- Greater risk for starting fires; greater risk to people/property from fires
- -- Increased demand for resources (fire suppression/protection) during fires
- -- Post-fire damage often greater than during fires
- -- Also interplays with Insects & Disease, Public Demand for Goods/Services
- -- New residents often reflect "NIMBY", or "hands-off" management desires

#### \*\* Other TRENDS \*\*

<u>Public Demand for Goods & Services</u> – increasing, & often conflicting (motorized v. non-motorized; oil/gas v. roadless, competition for water, ...) – concurrent w/ declining budgets and loss of wood products industry!

<u>Invasives</u> – increasing in area, species, speed of introduction – *they're winning, we're losing...* (interplays with fire, development)

#### <u>Climate Change –</u>

- warmer
- lower streamflows
- precip changes (more rain, less snow)
- earlier/shorter snow runoff
- interplays with plant & insect cycles, development (dust on snow!), public demand

#### \*\*Trends: SUMMARY\*\*

## Should these trends continue unaddressed, several undesirable results will continue, or worsen:

- Significant portions of this forest type will remain outside the range of natural variability and less resilient to disturbance (like fire, or insect & disease attack)
- The extent, and severity, of disturbance could increase e.g., areas in the WUI could become more prone to catastrophic wildfire
- Habitat degradation will expand
- Insects and disease, & dead or declining trees, will become more prevalent
- Tourism and scenery will continue to be affected
- Economic opportunities could be hampered

#### So, what to do....?

## The GOAL should be to increase the <u>natural functioning</u> of Mixed Conifer Forests by these APPROACHES

- Use a variety of "coarse" and "fine" management techniques <u>in appropriate areas</u> to increase the natural range of variability of mixed conifer
- Coarse = management-ignited and lightning-caused fire
- Fine = mechanical (e.g., chainsaws, mowers)
- Managing natural ignitions after planned treatments are accomplished can expand the area of desired influence
- Monitor effects of treatments, and adjust as needed

#### So, what to do...? (continued)

- Allow (or encourage!) appropriate economic development projects
- Engage and educate the public
- Increase local planning, prevention and stewardship efforts (e.g., assist with CWPP's; cooperate with neighbors, other entities, with near-by treatments)

### Let's talk specifics....



**Prescribed Burn**Mule Mountain Area









**Forest Restoration Project in Devil Mountain Area** 







#### **Forest Restoration Project in Devil Mountain Area**



Local example of a forest industry: biomass harvesting near Turkey Springs



**Prescribed Burn in the Piedra Area** 



**Prescribed Burn in the Piedra Area** 

## Where should work be done? Considerations.....

- In already roaded areas
- In the wildland-urban interface
- In areas that need treatments to improve wildlife habitat
- Areas that can get us the "biggest bang for the buck"

#### **Key Parameters for doing the work**

- Reduce the risk of catastrophic wildfire
- Restore ecosystems to more natural conditions
- Protect urban water supply and distribution
- Work closely with adjacent private landowners
- Increase local employment via forest product utilization
- Sustain recreation opportunities
- Improve wildlife habitat
- Increase opportunities for medium-size wildfire to occur safely
- Close to WUI/far from HRV => expect more treatments; farther from WUI/closer to HRV => less management
- USFS, in project selection, should strive for "biggest bang for the buck" in treating the limited acres they can treat each year

#### Community Feedback

- What priorities should "drive" management in M-C forests? Preservation v. production? Recreation? Healthy watersheds? Others?
- How can/should the Forest Service optimize the balance of environment, societal desires, and the economy?
- How do we avoid incidents like the Missionary Ridge or Wallow Wildfires?
- What do you know about how the Forest Service deals with effects of smoke from fires? Are there differences in smoke from managed fires versus that from wildfires?
- Should we try to return to forest conditions of the past?
- Are there other questions or concerns that you have regarding management of M-C, or other, forests in the Pagosa area?

### What can you do??

- Give input on the vision statement developed by the MCWG (handout)
- Be better informed
- Help spread the word about the need for forest restoration
- Provide input on projects
- Help with monitoring of projects
- Join the Working Group & and respect and enjoy the Forest!