



## Dolores Watershed Resilient Forest Collaborative

### Lone Pine Tour

November 03, 2021

#### In Attendance

Danny Margoles (DWRFC), David Sitton (Aspen Wood Products), Matthew Dear (SCC), Daria Walsch (SCC), Dana Guinn (MSI), Dylan Clausen (Montrose Forest Products), Steve Garcher (Dolores Board of County Commissioners), Ryan Cox (CSFS), Phil Ayers (SWCCA, WAP), Dennis Wilk (Silviculturist, USFS), Logan Davis (Fire Prevention Control), Derek Padilla (USFS), Jason Lawhon (USFS), Tim Kylo (Montrose Forest Products), James Dietrich (NRD), Pat Dorsey (WTF), Jimbo Buickerood (SJCA), Dave Casey (USFS), Emily Swindell (MSI)

#### SITE I:

- Site Background
  - Prescription
    - DxP (Designation by Prescription): method used to designate trees without painting individual trees. Description must include specific information that allows the designation of each cut tree to be replicated by all parties before and after cutting.
  - History
    - Area heavily logged in 1940s/50s: seed tree cuts (clear cut); same age stands
    - Basal Area (BA): ~110-180
    - Have been some regeneration pulses especially in old landing and burn scars, and hope to get new regen/age classes/new cohort with the new prescription; this is NOT a textbook stand, rather a process over time
    - Designation: MA5 (mix-use timber and grazing)
  - Future
    - Looking to the future range of variability, eg: with climate; also looking at historical spatial patterns and ecological restoration goals; encouraging bug and fire resilient trees
    - Suitable Base: want to create a “forever product”
    - 25-30 year rotation of harvests while creating differently aged stands, especially in ponderosa pine, recognizing that the next 25-30 years will be different than the past 25-30 years (past and future range of variability in document)
- *Question:* How does active management area fit into 30x30 goals?
  - MA5 is in the 30x30 acreage; most lands managed by USFS fit in 30x30; Rx trying to keep ponderosa pine on landscape while opening up habitat types; trying also to promote aspen, mountain grasslands, mountain shrublands, and large diameter Gambel oak
- *Question:* What are wood products from this area?
  - Boards: 1x4, 1x6, 1x8, lumber veneer, posts, mining timber, firewood
- Checklist Sheet: *Indicators, Desired Condition Statement, and Desired Trends*
  - Attendees spent ~10 minutes walking through forest near meeting area to go through and contribute to checklist sheet
  - Feedback



- Tree Composition: ponderosa pine
  - Tree Sizes: too uniform in size and age (ponderosa and oak); clumps of seedlings but not many; no saplings; no super story trees; maximum diameter of 30-35" from ponderosas left from 1940s but generally large-diameter ponderosas measure 20-24" (nothing cut with diameter greater than 25.9")
  - Ages: 120 year-olds at the top; mostly 100 year-olds; 95% of all trees ~80-120 years old
  - Density: very dense; couldn't see another person passed 40 yards; largest opening ~¼ acre
  - Fire Standpoint: lower canopy; dense stocking
  - Spatial Heterogeneity: lacking; can see just 1 large clump
  - Snags and Coarse Woody Debris (CWD): good amount of CWD; 1 good snag; no down logs; for cavity nesters, ideal snags must be old, big, and decayed enough – lots of spindly trees here at ~6" diameter that aren't appropriate for cavity nesters; the Ponderosa Pine Partnership girdled trees to make nicer snags
  - Site Indices Similar?: Yes (tree height/period of time, eg: a tree with a site index of 80 is 80ft tall in 100 years); we're on the edge of the ponderosa pine forest before it drops into PJ woodlands
- Beetle presence
  - Mountain Pine: goes for larger diameter trees; June/July is time of infection
  - Roundhead: goes for any size of tree; Oct/Nov is time of infection
  - Mountain Pine and Roundhead beetles are playing off of each other because of alternating times of infection
  - Mountain Pine beetles are now getting to plantation which is sad
  - Regional Entomologist was brought out for a tour recently and are supportive of treatments; understand that the Rx is not a silver bullet
- Mistletoe
  - Influences treatments and there are targets to remove as much as possible to protect young trees
- General Impressions
  - Metrics around resilience
    - 1<sup>st</sup>) Resilience vs Resistance
      - Resilience example: regeneration after a fire; ability of a system to bounce back and respond adaptively to change
      - Resistance example: use of BA treatments to keep forest the same
    - *Question:* How is resilience defined?
      - Defined but not for each individual metric, eg: BA, age size, etc.
      - Resilience and resistance treatments on private lands too
  - Highly productive area
  - Management to change in the coming decades and will be interesting to see changes

## SITE II: TEST MARK



- Test Mark = area to demonstrate desired conditions/what we're after in general terms to purchasers
  - 52 acres; utilizing DxP provisions; gives Rx guidance from Travis; acceptance clause describes how loggers are tracked in the field; orange paint = leave tree
- DxP
  - A new tool and is a requirement of contract not the EA; moved responsibility from pre-sale to admin sale side of things; marked to ~55BA
- Products Other than Logs (POL)
  - Logs < 9" available for use
  - Need to clean up and thin POL (good for a few decades); not all POL is the same, eg: spindly "logs" could be used for pallets, biochar, home pellets; POLs still need to be treated *maybe* with a follow-up treatment if Montrose doesn't take it out; slash will be burned
  - Would be great to develop a local market for biochar or industrial but don't currently have a use for material without industry because of the costs/economics
- *Question:* What are the mechanisms for cutting POL?
  - Service contract: 1) lop, scatter, then burn 2) cut/pile
  - Open-grown POL will be kept
- *Question:* Plans for Rx burns?
  - Yes, behind treatment units
  - Looking for transportation systems too for fuelwood (using the right tools in the right place)
  - Pile: 80% of slash
- *Question:* Releasing suppressed trees?
  - Encourage growth of spindly trees with a healthy crown to take out competition around it. Bugs like suppressed trees and the larger trees are healthier when there's more space
- *Question:* Thoughts about logging?
  - Looks good, cleaner.
  - With DxP, you don't see skid roads which also decreases disturbance to wildlife and discourages ATV use.
  - EG: Boggy Draw has smaller strategically placed landings.
- *Question:* What's protocol for figuring out which trees stay/go?
  - Timber industry uses a reloscope and USFS uses a 10 BAF (basal area factor) prism to target 14"-18" trees + deformed/defective (eg: with mistletoe) trees, then begin cutting back from there and ensuring a range of diameter trees, 10-26", are left.
  - Loggers are trying to leave healthy trees behind (to achieve a BA of ~55) that don't have much mistletoe or beetle-kill. There's no high grading going on
- *Question:* Groupy clumps?
  - 1<sup>st</sup>: Clump = 11 trees and smaller; Group = 12 trees and more
  - Not a lot of groups and clumps. Groups are great for interlocking crowns that can enable squirrels to move.
  - The GTR-310 was given to crews but it's still tough.
- *Question:* How does 40-60 BA compare to the historical record and how will it bring heterogeneity back to the landscape?
  - Historically, the BA was probably lower with larger diameter trees mixed with small diameter trees, and we eventually want to get back to that with increased regeneration and



a lower BA. We hope there are more remnant trees in 100 years and that we're in the direction to get back to conditions 100s of years ago.

- *Question/Comment:* It's concerning to NOT see any medium-sized trees.
  - This site is better than others.
- **At Landing of Test Mark**
  - Taking 5-6 BA; Lost Turkey taking 17 BA
  - Removal of POL
    - Not every acre needs follow-up treatment; accept each unit by unit after roads are close, etc.
    - Follow-up Contract: another DXP or mark trees needing to come out; some areas out here need more work; some stands will need follow-up
    - Burn to clean up/take care of slash
  - *Question:* Where does money come from for service contracts for POL?
    - Lot of potential sources:
      - Could merge into Shared Stewardship and sell wood to purchasers (not much value right now)
      - K-V from unit: take value out of timber after sale
      - RMRI (Rocky Mountain Restoration Initiative)
      - FTM fuels money
      - HPP
      - Restore
      - Other grants
      - Mandatory Bid Items vs Optional Bid Items (3-year contract can be extended)
    - State auction or raffle for funding? → This could be an elk project – Wild Turkey Federation to forward that information to Dave Casey.
      - Never had a contract not funded, so money isn't necessarily an issue. More time is spent getting everything set up. Have taken advantage of state funds (HPP). Agreements and contracts are the bottleneck, not funding
- Checklist Sheet: *Indicators, Desired Condition Statement, and Desired Trends*
  - Not helpful because we've only seen 0.2% of the Test Mark area.
  - BA and spacing is better, but didn't get to see much grouping, more clumps than groups.
  - Leaving larger logs on landscape in burn pile.
    - Seems like large woody debris (LWD) would be more beneficial to wildlife scattered on the ground – Agreed, piles could probably be more strategically placed.
    - *Question:* What are the scatter vs re-pile to burn?
      - 80% piling and 20% left in the woods.
  - *Question:* How much down woody debris (DWD) is needed for a functioning system?
    - Stands generate a lot of slash, so not worried about DWD recruitment out here.
- Lone Pine EA
  - 105-100+ BA

### SITE III: ACTIVE OPERATIONS (Montrose Forest Products)



- Tree Processing
  - Everything is DxP. There are length specifications before processing at the mill. Trees cut by feller-buncher (which is way ahead of this current crew), then skidder.
  - Here, there's less mistletoe, more and bigger oak, and fewer rocks.
- How does this look to the Forest Service?
  - Struggled with GTR-310 because it uses AZ/NM as a model – there's no bunch grass component here, but rather Gambel oak.
- Question: Snag retention?
  - Required to leave 1 snag/acre – lightening snags are more desirable while bark beetle snags less so because they rot faster.

#### **SITE IV: UNTREATED ACROSS ROAD FROM ACTIVE OPERATIONS**

- ~140 BA; area not part of the sale, but will be later
- *Question:* How would Montrose implement DxP and begin work in this area? Activity showing tree selections:
  - 1<sup>st</sup>) Pick 4-6 trees to leave
  - 2<sup>nd</sup>) Use 20 BAF Prism to determine trees that are in and out
  - 3<sup>rd</sup>) Look at what's going on, eg: beetles, mistletoe, etc.
  - 4<sup>th</sup>) Look at crowns: want a triangle-shaped tree, not flattened
  - Feller buncher driver check on trees too
- *Question:* How do you figure out how to create groups and clumps?
  - There have to be clumps to begin with, there aren't too many here. Group nearly with ~200 BA
  - Not every tree cut has something wrong with it, might just be too dense.
- There's no end of uneven aged systems, especially since ponderosa is constantly growing.
- DWRFC has had some challenging conversations about old tree recruitment, what's being left/taken, recreation, and community. If what was "marked" was implemented across the forest, what are the outstanding/lingering questions and concerns?
  - Still concerned about large tree retention (seems to be only a few 20"+ trees left) because larger trees are better seed trees and can withstand disturbance better – what will be left behind if a mixed severity fire comes through? If we're really embracing heterogeneity, wouldn't we apply the same treatment everywhere?
    - True, agreed. Sometimes trees have small problems, sometimes larger problems. Maybe we take out 1 big tree/acre. Treatment will reduce possibility of a mixed severity fire (like across the road). And 12-16" tree will produce cones.
  - If there's a large tree retention with a diameter cap, eg: 20 BA, how would implementation look?
    - There's trouble with not being able to achieve the BA we want with a diameter cap - – pockets when it's a big deal and other places where it's not
  - How do we create social license?
    - Generate solutions when in person. Ask direct questions to get those answers helps to look at it and



- There are a lot of large tops – pellet mill?
  - Can be difficult logs have to be separated from dirt. On the mill side of things, it's uneconomical to haul out of the forest and would have to process logs in the field. Would need: pre-planning, capacity at a mill, capital, right sized POLs, and different set of equipment to handle POLs, etc.
  - Also need a more integrated approach, and we haven't even talked about carbon.
  - POLs are challenging across the Rocky Mountain Forests, eg: Timber Age Systems is small scale but the opportunity to support and grow those kinds of local industries/economies is there.
- These kinds of tours are valuable to see operations in the field, better understand prescriptions, ask questions, talk about desired conditions, and spend some time each other – Thank You all!