

Cherokee National Forest Landscape Restoration Initiative

Steering Committee Meeting Notes for Workshop #2

Historic Visitors Center, Jonesborough Tenn.

Tuesday, April 12, 2011

9:00 a.m. - 5:00 p.m.

Steering Committee Members Attending: Katherine Medlock, The Nature Conservancy; Steve Novak, Wildlaw; Dwight King, Logging Company/Sullivan County Commissioner; Catherine Murray, Cherokee Forest Voices; Katherine Medlock, The Nature Conservancy; Danny Osborne, Tennessee Division of Forestry; Mark Shelley, Southern Appalachian Forest Coalition; Terry Porter, Tennessee Forestry Association; Geoff Call, U.S. Fish and Wildlife Service; Joe McGuiness, Cherokee National Forest; Parker Street, Ruffed Grouse Society; John Gregory, Tennessee Wildlife Resources Agency; and Steve Henson, Southern Multiple Use Council.

Members not attending:

Dennis Daniel, National Wild Turkey Federation.

Staff Attending: Karen Firehock, Facilitator; Kate Bird, Note-Taker; Greg Low, Workshop Leader.

Guests Attending as Technical Experts: Steve Simon.

Observers Attending:

Alex Wyss, the Nature Conservancy, Jim Stelick and Don Palmer, USFS, Cherokee Forest Watauga District; Mark Healey, Guy Street, Stephanie Medlin, Marty Bentley, Greg Salansky and Tom Speaks, USFS Cherokee National Forest; Josh Kelly, WildLaw; Hugh Irwin, Southern Appalachian Forest Council

Introductions:

The meeting began with opening remarks about the meeting's format and purpose from project facilitator Karen Firehock, followed by the introduction of the steering committee members and observers.

Recap from Workshop One:

Greg Low presented a recap of what was achieved at the first workshop. The group reviewed the map modeling, ecological systems and what is happening on the ground based on field assessments conducted by Steve Simon and other data. The group discussed what the committee is looking for in restoration and conservation objectives.

Mr. Low explained that the purpose of this second workshop was to look at future conditions using modeling starting with Montane Pine and Montane Chestnut Oak and options for those managing

systems along with an analysis of the cost of various strategies and the return on investment for each. The Landscape Fire and Resource Management Planning Tools Project (LANDFIRE) developed estimates of pre-European conditions for every system in the United States. Written descriptions are available. Steve and the panel created a new model for the montane chestnut oak forest.

Recap of current conditions

- There are nine major systems in 300,000 acres in the northern Cherokee National Forest (CNF).
- In the scorecard, the lower the score, the closer to what is believed to be the natural succession classes. Lower elevation pine is 90 percent away from its natural range of variability or “highly out of whack.”
- Oak systems are moderately departed from natural conditions.
- Two pine systems are highly departed. Spruce fir may not be highly departed.
- Across the board, the late succession classes with closed canopy are over-represented. The presumption is that there has not been enough fire opening up the forest canopy.
- The forest does not have the expected amount of very old growth.
- There is a shortfall of early successional classes across all systems. This is likely caused by absence of fire.
- Uncharacteristic vegetation: when vegetation occurs somewhere that would not be expected under natural conditions. For example, sites that would be expected to be pine but are actually oak are a "U" class. Uncharacteristic vegetation accounts for seven percent of the CNF.

Future Conditions:

Greg Low provided an explanation of ecological modeling and the assumptions underlying it. See slide show posted to project website: <http://www.communityplan.net/choke/minutes.htm> The model includes three different fire futures: Mother Nature (no fire suppression whatsoever), medium suppression, and high suppression. The assumption is we will continue to manage fire to protect life and property. We need to find a way of modeling that.

Mr. Low explained that each disturbance is built into the model, including insects and disease, mixed fire, surface fire, wind and weather. Any ecological outcome that the group thinks is valid can be incorporated into the model. Any management action can be modeled. Then we decide how much of that action should be done per year. It can be done by time segments up to a point. Oak and pine are programmed into 4 or 5 year segments.

The group then held a discussion of appropriate time horizons for the model. One participant suggested using the same time horizon as the Forest Service's management plans, which are drafted every 10 years. Mr. Low suggested that 20 to 50 year time horizons may be more appropriate for this model. A USFS staff member commented that while the plans cover 10 years, they are supposed to include longer term projections. Mr. Low noted that 20 years may be too short for meaningful change and 50 years seems reasonable. However, he explained that the longer the timeframe for the model, the more variables may change over time and the less accurate it will be. For example, something can happen in 10 years, such as an unexpected pest outbreak, that will completely change the 50 year projection. Mr. Low suggested that it would be better for this database to be held and managed by one entity so that the model can be updated as needed.

Enhanced Conservation Action Planning:

Mr. Low asked the group "What is your best reasonable assumption of fire suppression and how it will play out over the next many years?" The group discussed fire suppression modeling as an important

factor. This is done at two different levels: moderate and high, based on the time of fire and percent of successful suppression. Three types of fire are modeled: surface, replacement, and mixed. Using data concerning how much wild fire has occurred in the last 20 years, one could change the assumption about how much natural fire would occur per year.

One participant suggested that the value of wood quality should be considered in fire suppression decisions. A forest service staff member noted that this is one of their considerations and explained the recent fire suppression policies now being followed by USFS. Policy changes now allow the Forest Service to consider a number of factors, including the safety of firefighters, when suppressing fires. Policy demands that human-caused fire will be suppressed. Naturally-caused lightning strike fires can be allowed to burn. An estimated 8,500 acres burn annually in the northern portion of the Cherokee National Forest (CNF). One staff member suggested that the current estimate of 7,900 acres burned may be a bit high, but is a reasonable assumption for the model. Mr. Low suggested that more historical data could be obtained to develop a more accurate reference point in order to "ballpark" future policies that will allow more fire in the system.

Another participant suggested that it may be appropriate to make a distinction in the model for the wildland/urban interface, where firebreaks are more prevalent. These areas may also have higher levels of fire suppression. They also noted that Uncharacteristic (U) classes may increase with high levels of fire suppression. Uncharacteristic classes such as white pine and yellow poplar are found in oak systems. There may be increases in these with serious fire suppression. There has been a large increase of oak-dominated Montane Pine. Under moderate suppression, this would be less, and even less with prescribed fire.

Tom Speaks Presentation

During lunch, Cherokee Forest Supervisor Tom Speaks addressed the group. He noted that the work being done by this group has spurred regional and national interest in collaboration. Several other national forests are interested in this work. Long-term, the committee will be faced with the advocacy part of the process. With budget considerations, it will be difficult to compete for funding and this collaboration will be key. The Nature Conservancy (TNC) is looking at the possibility of using this strategy in other national forests around the country. He highlighted the fact that this effort does not go unnoticed and is brought up frequently in other forums.

He also announced that Steve Novak will be leaving the group as his organization WildLaw was disbanding. Thus a decision needs to be made concerning his replacement. The committee and Mr. Speaks thanked Mr. Novak for his service and for attending the last workshop as a "volunteer." Mr. Novak suggested that Josh Kelly would be a possible replacement for him since Mr. Kelly has attended most of the meetings and could represent the environmental community. Ms. Firehock reminded the committee to consult their protocols as to the process for nominating and appointing new members. She asked that if committee members wanted to recommend additional candidates for the position, that they send her any additional names within the next week along with contact information. Catherine Murray offered to provide past interview questions.

Committee members asked Mr. Kelly what interest he would be representing since WildLaw will not be his employer. He explained that he will work for WildLaw until May 31st. He has job offers from conservation organizations and will continue working on the Cherokee National Forest. One committee member recalled that they also had asked candidate members whether or not the organization they

worked for would be in conflict with the overarching goals of this committee or whether they had a policy in place that would influence their opinion on the committee. Mr. Kelly responded that he has asked prospective employers during interviews if serving on the CNFLRI Committee would be a problem and none has expressed any issues with his potential service. Several committee members commented that having a representative of the conservation viewpoint would be valued for public relations and information sharing, helping to ensure interest and support from environmental and conservation constituencies.

In response to a member's question concerning whether members must be replaced, Ms. Firehock clarified that bylaws say they will "attempt to replace" and that the committee had the option to replace or not. She suggested that the decision be made by committee conference call by mid May so that if a replacement member is chosen, they will have time to review materials and become oriented to the process prior to the third workshop.

Modeling Management Strategies:

Montane Pine Forest Simulation

Two preliminary simulations were explored: maximum ecological management and return on investment (ROI) management. The committee should develop recommended actions, but might not be able to and may want to provide several management scenarios with equal probability of success. Mr. Low noted that continuous fire burns create too much early successional habitat. The USFS might conduct three iterations of burning at the same spot, but the model randomly selects acres to burn. Many sites need repeat burn treatments to deal with vegetation that may be difficult to eradicate, such as rhododendron.

- Mr. Low will re-run the model to get the best possible outcome (in terms of low scores related to the natural range of variability) and will bring the results back to the committee for review.
- The committee would like to increase the amount of the open classes, if possible.
- A change to the assumptions may be necessary, as it appears that a large amount of closed forest is reverting to Class A in these models after fire. Mr. Low suggested changing the assumption of burn percentages from 80 percent to 50 percent.

Montane Oak Forest Simulation

In response to a question about funding restoration through timber sales, Mr. Low explained that the commercial cost per acre does not consider revenues from commercial sales. Revenue from commercial timber sales goes into the Knutson-Vandenburg (K-V) Fund. This funding can be used for treatments in the area and Mr. Healey offered to do some research to provide those figures. There are strict guidelines on what can be done with these funds.

Another participant asked about stewardship contracting. He noted that loggers do not see stewardship contracts as economical, but ideally these would be administered by a non-profit stewardship organization and the components sub-contracted out. Stewardship contracting allows funds to be moved further from the project area. An adjacent stand could be addressed with K-V funds.

Management Methods

Prescribed fire:

- Mr. Low will run no-fire scenarios for Montane Pine and Montane Oak. He noted that in the open classes there are gaps in the overstory. Fire affects the mid and understory - unless it is burning a lot hotter, it will not knock out the overstory.
- Mr. Low will add a maintenance burning option to both the Montane Oak and Pine classes. This type of management will not burn to an open condition, but will kill mid-canopy trees that are not fire tolerant.
- Group selection harvest: Some see this method as not commercially viable, as it requires a large percentage of revenue to be invested in infrastructure. The question is how many pulls and skids can you do per hour. A harvester can do an acre in half a day, but will then need to move all his equipment and this costs time and money. As a result, there are also more skid trails and more areas that need to be re-seeded. A “two-man operation” might bid on this, but most larger operators would not find this economically feasible. This may be a more lucrative strategy for smaller firms. This will be a site-specific option for more merchantable timber and kept as an option for the few sites where it might be commercially viable.
- Restoration harvests are not commonly used by the FS. One member asked about the American Chestnut as a focus. Ms. Firehock noted that the interviews with the American Chestnut Foundation revealed that there is not enough stock available yet for large scale landscape level restoration but this can be added in future years when enough sources for the modified, blight-resistant Chestnut have been made available.
- Shelterwood harvests were suggested as another management strategy that may be appropriate in systems where an uncharacteristic species dominates, but where mature oaks are present. One member suggested a need to estimate number of acres in this category. Mr. Simon noted that is likely less than 25 percent.
- An updated management spreadsheet will be distributed and posted to the website.

Simulations:

- The model is run currently with medium fire suppression, but will be changed to assume a high fire suppression scenario, based on new USFS Fire Management Policies.
- Mr. Low will run one scenario maxing out shelterwood cuts.
- Mr. Low will do fire and thinning options, run a combination option, and change the balance for less fire and more thinning.
- A few committee members noted that regeneration harvest is not restoration and the group should be careful about this language.
- Mr. Low asked the group what the objectives of the model runs should be: closest to the natural range of variation, more early successional or more open. These goals will change the management strategies included in the models.

- The committee would like to see runs over both 20 and 50 years.

Draft Potential Management Strategies

Low-elevation pine

- The same management strategies as those used for montane pine are possible here, plus others, as this is a mesic type with more commercial viability. This system is similar to the oak-dominated montane pine, but it is commercially viable.
- Commercial and non-commercial options should be included.
- White pine in cove forest could be managed for white pine. This is different from the natural variability but is another potential management goal. This will be discussed at the next meeting.

Dry-Mesic Oak

- The same management options are available as for montane red-chestnut oak.
- Committee members had different perspectives on the commercial viability of this forest type, which includes some scarlet oak.

Dry Oak

- There are fewer commercial options for this type, but pulpwood may be commercially viable and shelterwood harvest is an option in 20- to 50-acre cuts.
- Two-age shelter harvest should be added to this system and to the montane oak system as well.

Cove

- This system is moving toward natural variability on its own and the FS suggested gap harvest and regeneration harvest management options.
- Areas where there should be cove and there is not may be dominated by tulip poplar. There should be tulip poplar harvesting: heavy thinning to maintain beech, northern red oak, and birch. This will not show as an improvement in the model, but the committee could make this recommendation.
- Increased hemlock treatment will not show in the model, but the committee could make this recommendation.

Riparian

- This type has not been managed by the FS. The model shows it moving to more natural conditions.
- The committee discussed management for non-native, invasive species. This may need to be incorporated in the model as an uncharacteristic class.
- Dying hemlock in riparian areas may be a restoration opportunity and this species could be managed for. This should be discussed further

Northern Hardwood

- Although it looks good on paper, this type is an area of concern due to the increased Appalachian Trail buffer in the last Forest Plan (1/2 mile). This buffer should be mapped against this forest type.

Spruce-fir written description:

- Ten percent of the forest can be northern hardwood dominated with spruce understory. This may not be an uncharacteristic class. The model showed almost full recovery within 50 years,
- The committee discussed opportunities to increase the speed of recovery in this area, which was subject to severe fire. This is potentially important for rare species associated with spruce-fir forests. Greg and Steve will develop a strategy to speed recovery along and present it at the next meeting.

Wrap-Up and General Committee Business:

- Ms. Firehock sent digital copies of the public meeting notes and will post them to the website once comments are received. Issues that came up included whether and how the committee was incorporating climate change into its recommendations, especially in terms of effects on spruce fir. One participant noted that it was not wise to spend a lot of money down slope (lower elevation) if it will not be suitable habitat later due to changing temperatures.
- The staff will provide the past two meeting summaries for committee review in a week and a half.
- Survey results can be discussed at the next workshop as we prepare our public messages to explain and write up the results of this work. For the next meeting, committee members should think about public perception and the 'tone of recommendations.'
- The next workshop is scheduled for Tuesday, May 31, 2011 (same time, same location).