

# Cherokee National Forest Landscape Restoration Initiative

DRAFT Steering Committee Meeting Notes for Workshop #4

Historic Visitors Center, Jonesborough Tennessee

Tuesday, June 23, 2011

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

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## *Steering Committee Members Attending:*

Dwight King, Volunteer Logging Company/Sullivan County Commissioner; Catherine Murray, Cherokee Forest Voices; Katherine Medlock, The Nature Conservancy (TNC); Danny Osborne, Tennessee Division of Forestry; Dennis Daniel, National Wild Turkey Federation; Mark Shelley, Southern Appalachian Forest Coalition; Geoff Call, U.S. Fish and Wildlife Service (FWS); Joe McGuinness, Cherokee National Forest (CNF); Parker Street, Ruffed Grouse Society; John Gregory, Tennessee Wildlife Resources Agency; and Steve Henson, Southern Multiple Use Council.

## *Steering Committee Members Not Attending:*

Terry Porter, Tennessee Forestry Association

## *Staff Attending:*

Karen Firehock, Facilitator; Melinda Holland, Facilitator.

## *Guests Attending as Technical Experts:* Steve Simon.

## *Observers Attending:*

Josh Kelly, environmental interest stakeholder; Alex Wyss, TNC; Jim Stelick, U.S. Forest Service (FS), Cherokee Forest Watauga District; Mark Healey and Stephanie Medlin, FS CNF; Robert Lewis, FS; Larry Fisher and Debra Drexel, U.S. Institute for Environmental Conflict Resolution.

## **Introductions, Agenda Overview, Process to Complete Committee Work, and Reaching Agreements:**

The meeting began with opening remarks about the meeting's format, purpose, and collaborative process and an active listening overview from project facilitator Karen Firehock, followed by the introduction of the Steering Committee (the committee) members and observers. Presentations, meeting materials, and a summary will be posted on the Cherokee National Forest Landscape Restoration Initiative (CNFLRI) website:

<http://www.communityplan.net/cherokee/minutes.htm>.

Ms. Firehock mentioned to the committee that there is the potential for additional funding to support three additional meetings for the CNFLRI. The committee discussed the options for additional future CNFLRI committee meetings including their preferences for meeting structure, goals, and length. The tasks which remain for the committee include:

- Review and reach agreement on final Enhanced Conservation Action Planning (ECAP) model runs.
- Draft recommendations on other non-modeling issues.

- Draft all committee recommendations report sections.
- Develop a monitoring plan and long-term review process and add to recommendations report.
- Conduct public involvement activities (the previously scheduled July public meeting will be rescheduled).

The committee prefers all-day meetings (9:00 a.m. to 5:00 p.m.) similar to the last four workshops. The dates for future meetings will be determined based on the schedules of committee members and Greg Low (modeling consultant). Meeting dates will be posted on the committee's website. The committee's preferred meeting goals and schedule targets are:

- Summer 2011 – finish drafts of all report sections, hold conference calls to discuss topics, and draft report sections. Hold tutorials and/or expert briefings if needed.
- Meeting #1 – review final model runs, finalize as much as possible of the recommendations report language, and develop approaches for the other issues for the report. The date for this meeting depends on the schedules of committee members and Greg Low. The goal is to have this meeting in September or October.
- Public meeting and opportunity for experts to review the final draft recommendations. Goal: October or November.
- Meeting #2 – Review the draft monitoring plan and long-term review process, develop agreement on recommendations report, and decide how to incorporate public and expert comments on draft report. Goal: November or December; the committee needs 30 days after public and expert input is received.
- Meeting #3 – finish any remaining issues and finalize report language. Goal: December 2011 or January 2012.

The committee members agreed that they need adequate time to evaluate and incorporate public input into the recommendations report. The committee would plan to send the report to some key experts and ask for their thoughts and feedback.

Some committee members asked for help in better understanding how the ECAP model works and how it develops results, so that they can accept the model as a basis for the committee's recommendations. Katherine Medlock offered to work with those who want more information. Steve Simon will assist. Katherine will explore using a webinar format so that many can participate at the same time. A webinar can provide a tutorial on the ECAP model and live demonstrations to illustrate how changes are made to the model. Katherine also offered to send out in advance of the webinar the updated descriptions of the management options considered in the model (currently in committee notebook Tab 6, but they need to be updated).

## **Membership**

After the resignation of Steve Novak, Wildlaw, from the committee a conference call committee meeting was held on May 16<sup>th</sup> to discuss filling this vacancy. Mr. Novak recommended Josh Kelly as his replacement. The committee members participating on the conference call meeting were not able to reach agreement on having

Mr. Kelly join the committee. After that committee conference call meeting, members requested that the issue of filling this vacancy be reconsidered at the June 23<sup>rd</sup> meeting.

At this meeting, each committee member was first asked to explain whether or not they would like to see the current vacancy filled. After discussion, all committee members present agreed that the vacancy should be filled. Next the group discussed possible candidates for the vacancy, including Josh Kelly. There was discussion about concerns over the public positions regarding timber harvest taken by Mr. Kelly's new employer. Committee members suggested that Mr. Kelly could serve as an at large member representing environmental interests (but not a specific organization) and Mr. Kelly noted that he was willing to serve in that capacity. He stated that he will represent those interested in healthy forest ecology, wildlife habitat, clean water, and backcountry recreation, which is the same set of interests that Mr. Novak represented. The committee then reached agreement on having Mr. Kelly fill the vacancy as an at large member representing environmental interests.

### **Discussion of the ECAP Model Results and Other Recommendations**

The remainder of the meeting was focused on discussion of the latest runs of the ECAP model, draft recommendations report language, other possible topics for the report, and committee member work assignments.

#### ***Model Results and Suggestions***

Katherine Medlock explained that one goal for the meeting is to provide another iteration of directions to Greg Low for future changes to the model. The committee was provided prior to the meeting with a new summary worksheet and Excel workbook for the model runs. Ms. Medlock briefly reviewed Mr. Low's explanation of the last round of changes to the model and the results.

Ms. Medlock explained that the previously suggested treatments were not creating enough early successional habitat (also referred to as Class A) because the model randomly spread the resulting changes from age 0 – 19 years, instead of saying that all treated areas go back to 0 or 1 year old Class A. Mr. Low was able to correct this aspect of the model, so now it will do what it should do, assigning all treated acres to 0- or 1-year old vegetation. This makes the results of treatments more effective. Mr. Low also added some new treatments based on committee suggestions. The committee suggested more focus/priority on treatments for the uncharacteristic classes of vegetation, which resulted in a lower departure from the Natural Range of Variability (NRV) but increased costs somewhat due to the application of more treatments. With these changes, the ecological departure scores improved or stayed the same. Timber harvest estimates in the model increased to 1,500 acres per year; areas burned increased to 4,900 acres. Annual costs increase to an average of \$325,000 per year (all this is based on 20-year projections in the model).

Ms. Medlock noted that the committee can still change model parameters and outcomes. Reviewing the Excel spreadsheets which were sent to the committee, Ms. Medlock explained the extra weighting for treatments of uncharacteristic vegetation (also referred to as U-class). The goal of the Return on Investment (ROI) model run is to get the lowest departure score for the lowest price. ROI is a mathematical formula that now also considers (and rewards) how much a treatment reduces the uncharacteristic classes over 20 years. On the spreadsheet, Mr. Low called the newest run "workshop run" based on suggestions made at May 31<sup>st</sup> meeting.

Mr. Simon also gave the committee a table which shows class distribution by current CNF Land Management Plan management prescription. Steve Simon has done a watershed-by-watershed analysis of systems as well, which will be shared with the committee and FS.

In response to a committee member's question, Steve Simon explained that when white pine is commercially viable to harvest, the model treated it differently. The model gave more weight when a species like white pine is uncharacteristic in that ecological system (see the low elevation pine forest spreadsheet for example). Harvest of white pine over a certain age in cove systems should make some money and coves are very important systems worth the expense of treatments. One member suggested not basing any recommendations on marketability of timber as it varies so much over time, but noted that there is usually some market for white pine.

A FS representative noted that the committee has paid lot of attention to ROI in past, but also needs to be sure the treatments recommended will achieve maximum benefit on the ground. ROI may not always capture this. It is fine if the committee recommends other things; while the committee needs to keep cost in mind, it does not totally dictate decision making.

A committee member asked how the committee's recommendations will fit into the CNF forest plan, watershed assessments, and other things that the FS must follow. He noted that it also would help if Forest Service staff could explain how they think the model results might fit for CNF. A FS representative stated that if the committee's recommendations say "within a type of forest community this is direction we want it to change, these are the types of treatments we suggest, etc.", the FS will look at the CNF forest plan, watershed assessments/project plans, and other documents which tell them how they can manage in different areas of the forest. Then the FS will need to see how it can accomplish the committee's goals within the parameters of the forest management plan, and other guidance documents. A committee member stated it is important to evaluate whether the FS can accomplish the 20-year goals overall, even if these goals cannot be met in some years.

In response to a request for a definition of "woodland restoration," Mr. Simon explained that it is a condition where less than 50 percent canopy cover is maintained, which is known as a woodland condition. This condition provides habitat for a lot of different species. This stimulated a discussion on the habitat values of Class A and Late Open conditions and how they might best be created and maintained at desired levels. Members noted that CNF has little or no Late Open conditions. Many members suggested that areas of the forest should have succession through the stages over time. A member stated that Late Open also provides habitat for creatures which like Class A conditions, and the forest also needs more Class A habitat. A committee member suggested that the committee does not want to recommend cutting large amounts of timber at once, instead could suggest cutting a little out over time to take care of habitat needs, protect old growth, and protect seed sources.

The committee discussed the options, benefits and problems of trying to maintain a specific area in Class A condition as opposed to creating Class A habitat then letting it progress through the successional stages, while creating new Class A habitat in different areas of the forest over time. They noted that this is an important question, acknowledging that the FS may need to do both depending on the type area and habitat needs. A FS representative noted that they have traditionally moved treatments around the forest and allowed succession in

prior treatment areas. A member noted that cost is also a factor, as it costs more to keep the same area at the same condition than if areas are rotated; this is because some commercial harvest is possible to offset treatment costs. Another member noted that rotational forestry is harder to sell to his constituency, whereas harvest for ecological goals is easier to sell. A committee member noted if an ecological system is maintained in same condition over a long time, impact fewer acres would be impacted by treatments than areas are rotated around the forest where treatments are applied and Class A habitat is created. Other members stated that an area cannot really be maintained in the same condition over a long time, as nature does not work that way; change and succession is natural. FS representatives gave examples of how one could repeatedly burn areas to keep them at Class A or Late Open conditions. A member noted that in the areas designated as Woodland Urban Interface (WUI) where the CNF borders private lands and homes, the FS cannot burn in many of these areas which are too close to homes, so mechanical restoration will be needed. She thinks the last model run reflects the above concerns.

In response to a member request for a definition of Class A, Ms. Medlock reminded the group the committee had previously agreed to use the definitions from the Landscape Fire and Resource Management Planning Tools Project (LANDFIRE) models, where the model for each ecological system has a definition of early successional, etc. The FS also has standards for Class A as being from 0 -10 years in age. Steve Simon noted that there are several vegetation types in Class A, including tree sprouts and grasses, which have different habitat uses. Some members noted that if the FS maintains an open area over time, it is not early succession, but is late open, unless it is allowed to succeed up the classes.

Committee members discussed the option of running the model for a 50 year period to see what happens if maintain treatments over the long term. It was noted that Mr. Low said that over time the model becomes more incorrect. Another member stressed that ecological systems need an adaptive management approach, dealing with conditions as they arise over time. Because no one can know the impact over time of pests, weather, and other factors, adaptive management over time is important. Forest management must adapt to conditions as they evolve. Steve Simon noted that the model will not let allow the modeler to thin acres that no longer exist (due to prior treatments) over time. It was suggested that for the 50 year model run, the committee could ask Mr. Low to unsuppress fire or increase treatments as the current system will not achieve NRV (due to fire suppression) so some type of treatments need to be increased. Committee members also noted that the report needs to address what happens for 20 years, and recommend adaptive management and monitoring.

A committee member suggested that over the next 20 years the committee's recommendations could suggest increasing man-made disturbance to reach as close to NRV as possible; after 20 years the goal would be to maintain NRV over time. The amount of management needed will vary year to year, and natural disturbances will continue at unknown variable rate as well. The committee's goal is an appropriate range of s-class distribution. Members noted that the forest is currently mostly the same age class due to lack of active management in the past. Some members suggest using more fire for management, while others express concern about the impact of fire on the market value of trees. A committee member noted that the current model runs have both fire and harvest as treatment in various areas, and allows flexibility to consider WUI, forest plan restrictions, the value of trees, and other factors. The decision of which treatment is applied where needs to be made by the FS at the project level and the committee's model-based recommendations will allow

this flexibility. Another member stated that his recommendation is to "treat the right acres in the best way to achieve ecological needs for particular areas, while allowing economic uses as well where appropriate."

A committee member raised concerns about the accuracy of the model results when no action is taken. For example, in the cove system model run, we see a reduction of close to NRV by no action, and an increase in early successional by doing nothing. It is hard to believe it improves that much with no active management. Steve Simon stated that he has raised these concerns to Mr. Low, noting that the no active management assumption is based on occurrence of natural disturbances plus fire suppression. Forest stands do age so one would expect to see some natural change as a result (as trees die). He stated that the assumption of increases in early successional habitat with no management is based on predicted impacts of weather, wind, and other disturbances. He also encouraged the committee to remember that a 1 or 2 percent difference is just noise in the model, which should be ignored.

The committee discussed creation of gaps in the forest, how they are counted and monitored, what size gaps are needed for wildlife habitat, and the fact that the model does not consider smaller gaps. Committee members noted that trees are now older throughout the forest, so more will die and fall creating more openings. However, over a large area of forest,  $\frac{1}{4}$  to  $\frac{1}{2}$  acre gaps do not provide enough early successional habitat. Some bigger blocks of open land are needed for grouse and other wildlife. It was noted that the FS is not currently counting small gaps. Only openings of 2 acres or above are tracked to decide if the CNF land management plan's goal of 4 to 10 percent early successional habitat is met. FS research also supports a 2-acre minimum gap size for significant habitat benefits. FS representatives noted that gaps less than 2 acres are also difficult to track and monitor. It was noted that current Geographical Information System (GIS) technology allows tracking down to  $\frac{1}{4}$  acre, and a committee member suggested the group consider recommending that the FS begin tracking smaller gaps.

A committee member reminded the group of its previous agreement that 4 percent early successional is NRV. Another member stated that he does not believe that the model is adequately capturing the creation of gaps and early successional habitat creation. If the committee wants to suggest creation of openings beyond what is needed for NRV, in order to manage for habitat for some species, the committee must clearly explain this goal. He suggested gap creation should be in amounts the FS can track, have significant species benefits, and if possible have some economic value to pay for the treatments. Another member noted the need to describe the spatial distribution of gaps on the ground, beyond the total recommended number of acres to be cut in the model. A FS Service representative noted that the creation of more small gaps by treatments creates the need for more roads and provides the opportunity for spreading more invasive species, so the FS would prefer larger areas of harvest to create gaps.

Committee members agreed with the concept of drafting recommendations language for cove systems which suggests a project-scale goal of creating a range of gaps sizes and/or suggesting goals for gap sizes and early successional habitat. Katherine Medlock, Josh Kelly, Joe McGuinness, Parker Street, and Steve Henson agreed to develop this draft language. A committee member reminded the group about the need to convey that the committee is seeking various size treatment cuts (not all large) as it is difficult to get approval and public acceptance of large cuts due to concerns about water quality protection, steep slopes, and other factors. He noted that some areas are suitable for larger regeneration harvests if done in an ecologically correct manner.

There was also some agreement about the need to remove poplar where it is uncharacteristic, noting that it is best to do larger cuts and creation of larger openings where needed in order to remove U-Classes. Another member suggested the need to consider cutting some old oaks in coves.

Suggested model-related changes made by committee members during this portion of the meeting included:

- Analyze the minimum and maximum patch sizes of U-classes in various areas (Steve Simon will do this).
- Have the model weight treatments for the reduction of U-class white pine in cove forest systems for ROI (Ms. Medlock will check with Mr. Low to see if this has been done or not).
- Run the model for a 50-year period to see the results.
- In cove forest, go after white pine U-class (clear cutting is okay).
- Apply 1,000 acre regeneration harvest per year in cove systems.

The committee next looked at the results from the latest model runs for some specific ecological systems.

#### *Montane Red Oak*

Suggested model changes for the montane red oak system:

- Change the regeneration harvest from 100 acres to 300 acres per year and subtract 200 acres per year from prescribed fire.
- Increase thinning in late closed areas. For the Maximum Ecological Management run results, the committee wants to see a mix of mechanical treatment plus fire. Run the model with 800 acres of fire, plus ½ the existing numbers in the mechanical management column.
- Analyze how many U-Class, harvestable size trees exist that are in areas suitable for harvest in ALL systems so that the committee will know the upper limits of harvestable U-class. For the next model run, assume an age of 50 years for poplar, 50 years for white pine, could assume 50 year age for all types; plus consider the suitability of sites/areas for timber harvest. The goal will be to get rid of these acres of U-class trees as fast as possible.

FS representatives stated that to get oak back in cove they will need to remove the U-class trees, then use herbicide and plant young trees, which is what they have done on a small scale. Keeping yellow poplar and pine from coming back after removing these U-class trees will be an issue; fire and herbicide treatments will likely be needed.

#### *Dry Oak*

Some committee members noted that much of the timber in a dry oak system is not commercially viable for harvest due to slopes and other issues.

A suggested model run for this system was to change the assumptions for regeneration harvest to 50 percent commercial and 50 percent non-commercial.

#### *Dry Mesic*

Suggested modifications to the model for dry mesic system included:

- Modify the “workshop run” to double the amount of thinning, change the amount of regeneration harvest to 200 acres, and leave fire alone.
- Modify the “workshop 3” run by increasing the amount of fire to 700 acres.

Katherine Medlock noted that there will be a deadline beyond which Mr. Low cannot make further revisions to the model. She will inform the committee of this deadline after checking with Mr. Low.

There was some discussion about what amount of fire is feasible. FS representatives noted that they have burned 10,000 acres in some years, with 5,000 acres burned so far this year. The amount they can burn varies by year according to weather, air quality restrictions, and other factors. Ten thousand acres per year is the current management plan target, so the FS is comfortable with the current model run summary table regarding fire. They noted that use of fire is getting harder to do due to air quality issues and air quality regulation by the states. They anticipate more restrictions on the sizes of burns in the future. A committee member noted that the U.S. Environmental Protection Agency (EPA) has said the overall area must reduce air emissions or it will lose federal funding for highways.

### ***Other Recommendations***

The committee next reviewed various sections of the draft recommendations report prepared by Katherine Medlock and discussed options for further drafting of the report.

### ***Economics***

The committee reviewed Katherine Medlock’s draft report language on “Economics, Feasibility, and Contracts” and was generally comfortable with this language. One member noted that depending on who is the intended audience the report may need clarification; the FS will understand this language, but the general public needs to understand how timber sale revenue is generated and distributed. The suggestion of putting details in appendices was accepted. FS representatives agreed to draft a page explaining how timber sales work, how the revenues and benefits are distributed, and the difference between timber sales and stewardship contracting.

### ***Stewardship Contracting***

Dennis Daniel and Mark Shelley prepared draft language on stewardship contracting, which the committee reviewed. This draft provides a general overview of the program and where funds go. The authors suggested that some of this language could go into an appendix. The committee suggested that key concepts to have in the body of the report would be an explanation of stewardship authorities (contracts or other type agreements; partnerships can be included), that revenue can be spent to benefit other parts of the forest (revenue applications are not limited to the sale area boundary like timber sales), and there is no 25 percent of revenue returned to the county. Ninety-five percent of money generated can go back to the forest land. Committee members noted that it has been a challenge to get both the FS and timber harvesters to use stewardship agreements, and suggested that the committee report should include language to encourage the FS to increase use of these agreements. It was noted that some committee members might be interested in being included as partners in stewardship agreements. The committee supported adding case studies of successful stewardship agreements to the report appendix. FS representatives noted that stewardship agreements are not a tool for



every situation, and they have done two in Northern CNF. Committee members suggested it would be a good tool to achieve committee objectives in areas where commercial harvest is not viable. The stewardship agreement program is up for reauthorization in 2013.

### *Invasive Species/Pests and Pathogens*

The committee reviewed Katherine Medlock's draft report section on invasive species, pests, and pathogens. There was about discussion of trees dying from pests and disease and the impact on successional classes. If nature creates a huge amount of early successional habitat due to die off from pests or disease, the committee might want to recommend an adaptive management approach for future monitoring and implementation, noting that the model would need to be re-run and management strategies re-evaluated when major changes occur.

Other suggested topics to be covered in this section included:

- Use firewood quarantine areas to prevent spread of pests from imported firewood. For example, North Carolina forests have signage saying no firewood allowed from outside areas.
- Do not use non-native landscaping plants on or near the forest.
- The wooly adelgid is impacting CNF. The FS is doing what they can by treating some areas of hemlocks to try to preserve the gene stock to propagate from after finding a cure for this pest.
- Provide education for the public and adjoining landowners who plant invasive plants on land next to forest. This is something that could be controlled or prevented. Add a recommendation for early detection and rapid response to invasive plants. The CNF has a non-native invasive Environmental Assessment (EA) and this should be referenced this in report. Add landowner education as a recommendation in the report. The committee could include existing fact sheets in mailings and share at meetings with the public.
- Wild hogs are not a game species in Tennessee and they do impact trees.
- Add language on the need for future EAs related to invasive species control.
- Address non-native European earthworms and their use as bait by fishermen.

Josh Kelly and Catherine Murray will draft the revised invasives section of the report.

### *Threatened/Endangered Species*

Katherine Medlock noted that the Tennessee Chapter of TNC is running an analysis on the state wildlife action planning database with the Tennessee Wildlife Resources Agency. This database lists all the species of greatest conservation need in Tennessee and contains habitat type and key limiting factors for all these species. Geoff Call and Katherine Medlock have discussed this issue and noted that most of these species are reliant on small, rare communities. The FWS is working on a programmatic consultation with the FS on threatened and endangered species. This will be explained in the draft committee report. TNC is interest in possible impacts to threatened and endangered species when new early successional habitat areas are created, and they want to create a way that information can be provided to the FS for project-scale decisions. Geoff Call, Joe McGuiness, and Katherine Medlock will draft this report section.

## AREAS WITH MANAGEMENT PRESCRIPTIONS

Under the draft report section entitled “considerations for current and future planning processes,” Katherine Medlock explained the table in Appendix C. She noted that based on this table, generally there are enough acres suitable in each system type for the treatments the committee might recommend over the next 20 years. The main areas of deviation are spruce fir and montane pine (high elevation areas); a lot of these acres are listed as non-suitable, but that does not mean the treatment is not possible. For montane pine, most acres are in wilderness areas or in the Appalachian Trail (AT) view shed. Mechanical thinning cannot be done in a wilderness area but potentially could be done in the AT corridor (it is not prohibited by AT language if not damaging to the AT’s viewshed). If an area is both wilderness and in the AT viewshed, the wilderness prescriptions take precedence over the AT prescriptions. Fire is an option in wilderness only if the FS has a wilderness wildfire use plan in place to allow lightning-caused fires to burn, but a separate EA is needed for the use of prescribed fire. The committee could recommend that an EA for prescribed fire be developed. Currently the FS is required to fight all fires in wilderness even they are caused by lightning, if no fire plan exists. The committee could encourage the FS to develop these plans for all wilderness areas within the CNF. The committee could also encourage the FS to do an EA for controlled fire. A FS representative stated that this is an option, however the regional forester must approve it and the use of controlled fire is viewed as a very heavy-handed management approach in wilderness areas. The FS prefers fires caused by lightning. He noted that approval would be more likely for reduction of hazardous fuel levels (especially in WUI areas) than for habitat management. He stressed that it is a very complex, difficult process to get approval for these burns in wilderness. A committee member suggested looking at long-term wilderness data to see if those areas are getting natural disturbances at levels which help wilderness areas move closer to NRV as the model predicts; this is a way to test that hypothesis.

A committee member suggested adding “...must rely on more **NATURAL FIRE OR** more passive...” in the draft report language related to wilderness. Another member reminded the group that the new forest management plan is due in 5 years; just because the current forest management plan precludes something does not mean the committee cannot recommend it. However, she noted that we should be aware of those things and discuss them in the recommendations report.

### *Climate Change*

The committee reviewed the language drafted by Mark Shelley. It was noted that this topic might best fit under the section on monitoring and adaptive management. Some members suggested that the report should just acknowledge the climate change issue and mention use of an adaptive management approach, including the language about managing to reduce carbon emissions. Steve Simon suggested that the committee should not suggest anything that might make the species adaptation problems worse. He noted that plants move up and down slope in response to climate change, so it is best to avoid doing anything to prevent them this option. An example provided was not working down slope for spruce fir restoration as it gets warmer at lower altitudes and some species will need to move higher elevation for cooler temperatures (she noted that this comment came from one of the committee’s public meetings). Committee members were comfortable with keeping the discussion of climate change general, as no one knows what will happen over time, making adaptive management very important. Steve Simon suggested adding language about connectivity and giving species the

ability and room to move up or down slope as needed over time to adapt to climate change. Mark Shelley agreed to revise this draft section.

*Watershed Approach*

Mark Shelley agreed to prepare the first draft and link it to FS watershed-related information. He noted that a CNF interdisciplinary team did an analysis of watershed conditions, which identifies which watersheds are at risk; they evaluated many parameters and found that many watersheds are at risk due to activities on adjoining properties where the FS cannot take action. Members suggested that an overview of the FS watershed condition framework would be good general language for this section of the report. Mr. Shelley will include, in an appendix, the watershed analysis that Steve Simon prepared. Mr. Simon took the 46 watersheds based on FS data, and looked at U-class, late-closed, and mid-closed systems to see how many acres of each exist by watershed to see where the greatest treatment opportunities lie by watershed. He stated that this work is more useful at the project implementation stage. It was noted that the FS only owns a small portion of each watershed. Katherine Medlock offered to write an explanation of what Simon created and how relates to the committee’s recommendations. A committee member suggested that the report also point out that the FS is doing a better job in improving health of watersheds and water quality in the forest.

*Roads*

The committee suggested that the topic of roads needs a separate section in the report. Josh Kelly, Catherine Murray, and Parker Street agreed to prepare the first draft.

*Energy/Biofuels*

The committee suggested a short section in the report about the potential future of energy and biofuels at CNF. Steve Henson, and Terry Porter are to prepare this draft.

Katherine Medlock requested that all committee members look at the structure and framework of the draft report and provide feedback about what is missing, what needs changing, and whether is it appropriate for various audiences. This feedback and all straw drafts must be submitted for circulation to the full committee by July 29<sup>th</sup>.

**ACTION ITEMS**

<i>ACTION</i>	<i>PERSON RESPONSIBLE</i>	<i>DUE DATE</i>
Create/schedule ECAP Model webinar	Katherine Medlock	Mid July
Schedule three future committee meetings	Facilitators and Katherine Medlock	July 29 <sup>th</sup>
Post meeting materials on CNFLRI website	Facilitators	July 1 <sup>st</sup>
Circulate draft summary of the 6/23/11 meeting to the committee for feedback	Facilitators	July 8 <sup>th</sup>
Provide committee with updated descriptions of the management	Katherine Medlock	Prior to modeling webinar

options considered in the model		
Share with the committee Steve Simon's watershed-by-watershed analysis of all systems. Write a general explanation of what Simon created and how relates to the committee's recommendations.	Katherine Medlock	June 31 <sup>st</sup>
Committee to provide feedback to Katherine Medlock on format and structure of draft recommendations report	All Committee Members	July 8 <sup>th</sup>
Draft language for the report on suggested goals for creation of gaps and early successional habitat in cove systems	Medlock, Kelly, McGuiness, Street, Henson	July 29 <sup>th</sup>
Announce to the committee the deadline beyond which Greg Low cannot make further revisions to the model	Katherine Medlock	When known.
Revise the draft report section "Economics, Feasibility, and Contracts" to incorporate committee feedback	Katherine Medlock, Dennis Daniel, Mark Shelley	July 29 <sup>th</sup>
Draft language for the report on how timber sales work and the difference between timber sales and stewardship contracting	Forest Service	July 29 <sup>th</sup>
Revise Invasive Species, Pests and Pathogens section of draft report based on the committee's suggestions	Josh Kelly, Katherine Medlock	July 29 <sup>th</sup>
Draft language on threatened and endangered species for report	Geoff Call, Joe McGuiness, Katherine Medlock	July 29 <sup>th</sup>
Revise draft language on climate change based on committee feedback	Mark Shelley	July 29 <sup>th</sup>
Revise report section " <i>considerations for current and future planning processes</i> " based on committee feedback	Katherine Medlock and CNF	July 29 <sup>th</sup>
Draft language for the report on watershed issues	Mark Shelley	July 29 <sup>th</sup>
Draft language for report on roads in CNF	Josh Kelly, Catherine Murray, Parker Street	July 29 <sup>th</sup>
Draft language on	Steve Henson, Terry Porter	July 29 <sup>th</sup>

***Modeling-related action items (for Greg Low or Steve Simon)***

- Analyze minimum and maximum patch sizes of U-class in various areas. (Steve Simon)
- The model should assign extra weight to treating U-class white pine in cove forest as part of ROI (check with Greg Low to see if this has already been done).
- Committee expressed interest in having a 50-year run of the model, but did not make any specific recommendations as to changes in model parameters after 20 years, but did acknowledge the possible need to change assumptions for the last 30 years of the 50-year run.
- Calculate how many U-Class harvestable size trees exist in areas suitable for harvest in ALL systems, so we know the upper limits of harvestable U-class. [For the next model run, assume age of 50 years for poplar, 50 white pine – could assume 50 yr age for all; plus consider suitability of sites/areas for timber harvest]. The goal will be to get rid of these acres of U-class trees as fast as possible.
- In cove forest model run, go after white pine U-class (clear cutting is okay).
- Run model numbers assuming 1,000 acre regeneration harvest per year in cove systems.
- In the montane red oak system model: increase regeneration harvest from 100 to 300 acres per year and subtract 200 acres per year from prescribed fire. Add some increase in late closed thinning.
- In the montane red oak, the committee likes the maximum ecological management scenario and wants to see a mix of mechanical plus fire. Run the model with 800 acres of fire, plus ½ of the existing numbers in the mechanical management column.
- In the dry oak model, increase regeneration harvest to 50 percent commercial and 50 percent non-commercial as the assumption.
- Look at wilderness area data to see if we are getting natural disturbances at levels which help them come closer to NRV as the model predicts. There is a way to test that hypothesis.