

# Cherokee National Forest Landscape Restoration Initiative

## Comment Response Document

January 26, 2012

The following response summary to public comments reflects the consensus of the committee. This document summarizes the committee's response to public comments submitted to CNFLRI. Responses reflect the agreed upon opinions of the committee as a whole and are not necessarily those of individual members. These responses are from the CNFLRI only and do not represent the US Forest Service or its agents. The CNFLRI is an independent entity formed to create ideas for restoring the health of the Cherokee National Forest. All comments submitted by midnight on Nov. 11, 2011 have been evaluated. The Steering Committee spent three meetings reviewing and responding to the public comments (on November 10<sup>th</sup>, December 5<sup>th</sup>, and January 24<sup>th</sup>). Comments are summarized (paraphrased) below, followed by the committee's response. Comments are not attributed. In cases where the comment is or has been addressed in the report, the reader is requested to reference the draft report and its appendixes, which are available until April 1, 2012 for download at <http://www.communityplan.net/cherokee/news.htm>.

**Comment:** *This document should include explicit language that calls for the Forest Service to ground truth any data or models that it uses for projects.*

**Response:** The need for ground truthing is specifically addressed in the report document. Please see the section titled "How this report should be used," which is found under the Discussion portion of the document.

**Comment:** *This document should include a process for monitoring and evaluation.*

**Response:** The need for monitoring and evaluation is specifically addressed in the report document. Please see the section titled "Monitoring and Adaptive Management Approaches," which recommends three types of monitoring (implementation, effectiveness and validation monitoring). Comments also included suggestions to augment the monitoring and evaluation section of the report. Based on those suggestions, additional language has been added to improve the clarity of this section.

**Comment:** *This document should be more explicit about the area covered by the recommendations and should note that this effort is only addressing the Northern Cherokee Forest.*

**Response:** The report's title page has been changed in order to read "CNFLRI Steering Committee Recommendations to the FS for the North Zone of the Cherokee National Forest (Watauga and Unaka Districts)" to clarify that the recommendations cover only the North Zone of the Cherokee National Forest. Also, a map showing this region has been added to the report's cover page. This comports with changes made previously to the web site.

**Comment:** *The recommendations of the committee are too broad and not site-specific enough to accomplish restoration and maintain the species viability of the forest.*

**Response:** Because of the scientific difficulties of modeling past, current and future conditions on the forest, along with the limited resources available to this initiative, modeling and recommendations were made at a relatively coarse scale. The committee believes that the methods and scale used have made the North Zone of the Cherokee National Forest more comprehensively and accurately evaluated than any other Southern Appalachian National Forest. The information used was not flawless and yet it was the best available and represents an advance in informing the ecological restoration and management of the forest. The committee expects that site specific restoration will be accomplished at the project level, within the guidelines of the

Cherokee National Forest Revised Land and Resource Management Plan (CNF RLRMP), completed in Jan. 2004, consistent with the recommendations made in the committee's report. The committee believes that the current CNF RLRMP has ample provisions for protecting biodiversity and particular species of concern and expects the Forest Service to operate within the CNF RLRMP. See the response concerning baseline conditions and past forest conditions below for more information.

**Comment:** *If the Steering Committee did not intend the recommendations to be in order of priority, the numbers in the document should be removed.*

**Response:** The numbers for the recommendations have been changed to bullet points in order to clarify that they are not listed in priority order.

**Comment:** *The recommendations do not adequately protect sensitive herbaceous layers, particularly in Cove Forest systems.*

**Response:** The standard operating procedures of the US Forest Service include guidelines for avoiding damage to plants that are of special concern and for minimizing soil disturbance. However, the Steering Committee added a specific recommendation to monitor herbaceous layers in Cove Forests in order to prevent damage to this important resource.

**Comment:** *The definition of "ecological systems" used in this document is different than that used by the Tennessee Heritage program.*

**Response:** Ecological Systems are a nationally consistent and documented set of mid-scale vegetation types used to describe existing vegetation as well as vegetation that may have been dominant on the landscape prior to Euro-American settlement. This is based on both the current biophysical environment and an approximation of the historical disturbance regime. Technically, Ecological Systems are the name given to Biophysical Settings (LANDFIRE), a map unit of pre-settlement vegetation types. Ecological Zones are units of land identified from local field data and environmental models that can support a specific plant community or plant community group under historical disturbance regimes and are thus equivalent to Biophysical Settings (BpS). Ecological Zones are mapped at a finer scale than Ecological Systems and were used to define BpS/Ecological System map units (the restoration targets) in the Cherokee National Forest – North Zone.

LANDFIRE = Landscape Fire and Resource Management Planning Tools Project <http://www.landfire.gov>

**Comment:** *The LANDFIRE model is based on a western US landscape and is not appropriate for eastern US forests.*

**Response:** The LANDFIRE model is available for the entire continental US. The committee recognizes that the Enhanced Conservation Action Planning Process (E-CAP) it followed had not been previously used in the eastern US. In order to ensure that the LANDFIRE Biophysical Setting Models (BpS Models) are as accurate as possible and reflect the conditions of eastern forests, scientific and expert review of the models was conducted. The steering committee is deeply indebted to the panel of experts who reviewed the BpS models and provided input. The steering committee felt that the resulting information was the best available science for the scale and purpose of its task. The committee recognizes that the models are not perfect; they are models and as with all models, have inherent flaws and assumptions. However, the use of the models greatly advanced the committee's knowledge and understanding of the systems and helped members reach joint understanding. The steering committee noted the assumptions found within the LANDFIRE models should be tested using an adaptive management approach and therefore recommended that approach in the monitoring section of the report. Lastly, the committee concedes that LANDFIRE is poorly named and leads one to believe that the models focus solely on fire or fire-adapted systems. In fact, LANDFIRE models all ecological systems and includes

multiple types of disturbances such as hurricanes, ice events and other weather-related disturbances, even when fire is a very minor component.

**Comment:** Fire is not an appropriate management approach for the Cherokee National Forest.

**Response:** Fire is a natural element of disturbance within the Cherokee National Forest. Fire (controlled burns) have been recommended as a management strategy where appropriate. Due to concern for human life and property, naturally-ignited fires are not allowed to burn at the same scale at which they once did. Several ecological and fire history studies have convinced committee members that controlled use of fire is an essential disturbance in pine and oak ecosystems, with particular fire regimes unique and appropriate to each system. Fire is an important tool for not only restoring, but maintaining fire-dependent ecosystems, and the committee believes that restoration of the forest would be impossible without the use of fire. This approach also adheres to current USFS policy to avoid controlled burns for areas where human populations would be at risk.

Where language has been added about biophysical settings and the LANDFIRE model, further language has been added for each BpS, which states that this model includes information about fire rates. This is to address commenter concerns about whether or not fire is a natural disturbance in this system. Commenters who expressed additional concerns about cove forests should note that fire was not suggested as a management strategy for this Ecological System.

**Comment:** *What is the baseline for restoration and how can the CNFLRI know the past condition of the forest?*

**Response:** The baseline established for this project is pre-European settlement conditions and is based on peer-reviewed literature and conditions described in the LANDFIRE Biophysical Settings Models. Biophysical Settings (BpS) were mapped in the north zone of the Cherokee National Forest using 18 Ecological Zone models developed from field plots and digital terrain data. These models were aggregated into 12 unique BpS ranging from Southern Appalachian Low-Elevation Pine to Central and Southern Appalachian Spruce-Fir forest types. The committee utilized nine of these 12 models to develop its recommendations.

Scientists from across the region were asked to review the models, as was a panel of experts established specifically for the Oak Systems, which included experts from private sector, universities and the USFS. The USFS FS Veg data and earlier FIA (forest inventory and analysis data) were utilized and an additional 1,200 field plots were taken to ground truth assumptions about the current abundance of forest types. In all, these procedures increased the model accuracy for the Cherokee National Forest to greater than 80 percent. Assumptions made by the model should be further ground truthed in the field during project design.

Ecological Zones in the Southern Appalachian Mountains, identified from intensive field data that defined plant communities, were associated with unique environmental variables characterized by digital models (Simon et. al., 2005). These zones were mapped on over 5 million acres by applying logistic regression coefficients to digital terrain models using a geographic information system. In that study, Ecological Zones subdivided the forested landscapes in the Southern Appalachian Mountains into homogeneous units for natural resource planning at a range of scales.

A multi-stage process was used to model those ecological zones in the study area that included:

- 1) data acquisition, i.e., identifying Ecological Zones at 1,200 field locations,
- 2) creating a digital terrain GIS database and extracting environmental data,
- 3) statistical analysis,
- 4) spatial modeling,

- 5) post-processing of digital model outputs, and
- 6) evaluating the accuracy of Ecological Zone map units.

For more information, please see Appendix I of the report, which discusses those changes made to the models and also see Appendix J, which describes the data collection and analysis process.

**Comment:** *The historic documentation of the Forest Service before and during acquisition should be considered by the Steering Committee and included in a bibliography.*

**Response:** Though individuals on the Steering Committee may have reviewed these documents, the committee did not use them as a whole during its process. Though these records are very useful for the particular areas that they cover, they do not include the entire North Zone of the Cherokee National Forest. Therefore, they can best be used at the project scale in locations for which a document is relevant because it covers that particular geography, during the time when restoration treatments are being planned.

**Comment:** *The report should include specific examples of successful and unsuccessful restoration projects.*

**Response:** The committee understood the commenter's frustration at a lack of examples of restoration that could be used as reference locations. This lack of current restoration was one of the reasons that prompted the creation of the committee. Once restoration activities have been underway, the committee hopes that these restored areas then may serve as reference sites for future work.

**Comment:** *Did the committee discuss the feasibility of restoration practices with the USFS?*

**Response:** In committee meetings, the CNFLRI shared proposed restoration practices used in the modeling process and in the report's recommendation's section with the USFS staff and requested input from the USFS staff as to whether these approaches were realistic, feasible and affordable. This feedback was used to inform the restoration practices that have been included in Appendix B, "Management Strategies Workbook." In addition, the feasibility of the recommendations' costs were compared to current expenditures for projects conducted in the Cherokee National Forest and the USFS informed the committee that the costs were found to be reasonable and within the ballpark figure for what is necessary and feasible over the proposed 20-year planning horizon of the report's recommendations.

**Comment:** *What are acceptable restoration practices?*

**Response:** The committee considered a wide range of restoration treatments. Though not all of them were used and certainly not all of were used them in every ecological system, the list of treatments that were considered and their descriptions can be found in Appendix B, "Management Strategies Workbook."

**Comment:** *The CNF contains only seven percent of the net volume of live trees on forest land statewide, and this should be considered in assessing the community benefits of stewardship contracting.*

**Response:** The committee felt that stewardship contracting has many potentially valuable benefits and should be evaluated as a tool for potential application at the project level. The scope of the committee's report only addressed National Forest Service system lands on the North Zone of the Cherokee National Forest.

**Comment:** *Wilderness and Wilderness designations are not addressed adequately in the report.*

**Response:** Wilderness designations are generally recommended during a Land and Resource Management Planning effort. The CNFLRI is not recommending changes to the current CNF RLRMP land use designations. Wilderness designations must be made by Congress. Therefore, most wilderness issues were beyond the scope

of this effort. However, the committee did consider where mechanical restoration treatments may not be allowed, such as in areas designated as 'Wilderness,' to ensure that the CNFLRI is not recommending more treatment than could be done under the current CNF RLRMP. Please see Appendix E, "Implementation Analysis" for further information.

**Comment:** *The committee should consider and include passive management as a viable means of restoration.*

**Response:** The purpose of the CNFLRI was to develop a collaborative set of recommendations to help the Forest Service restore the health of the Cherokee National Forest. Therefore, the committee and the resulting recommendations focused on taking action. "No action," was also included in the model runs to determine whether the forest could indeed 'heal itself' as some commentators suggested. In all systems except Oaks, the ecological systems did not recover in 20 years. Fifty year model runs were also conducted to determine whether the forest would recover in the foreseeable future. Although longer model runs are less accurate, these runs also showed that the natural range of variation would still not be achieved. In order to help the forest achieve a more balanced ecological system in the next two decades, the committee recommended restoration practices to move towards the "natural range of variability" normally expected for the forest types of the Cherokee. Therefore, the document focuses on taking action in the near term. However, the committee recognizes that passive restoration may be the preferred option in many cases. Therefore, the committee added language to clarify its intent in the section titled "How This Report Should Be Used" in the discussion section.

Lastly, the entire forest is not being considered for active management. This report follows the current USFS CNF RLRMP so that areas that are off-limits to most management actions, such as Wilderness areas, were not included in calculations of the land available to be actively managed. Refer to Appendixes D and E for a list of uncharacteristic classes and acreage restricted by Wilderness designation.

**Comment:** *The Committee should reconsider inclusion of the dollar figure in the "Benefit to Local Economies" section and/or explain how it was derived.*

**Response:** This figure has been removed.

**Comment:** *The committee should recommend specific restoration goals for each project.*

**Response:** The committee agrees and has added the following language supplied by the commenter:

In order to ensure that each restoration project is successful, the CNF should include:

- Clear goals and measurable objectives for achieving ecosystem structure and composition.
- Project level monitoring to measure whether, and to what extent, those objectives are achieved.
- Evaluation of the results, including consideration of whether and how this and future projects should be modified. To that end, flexibility should be built into each project at the planning stage so that the project can be modified as necessary.

**Comment:** *The report does not address the scale at which planning and restoration should occur.*

**Response:** The report addresses the scale at which planning and restoration should occur in the section titled "Watershed Approach" in the recommendations section.

**Comment:** *Several commenters expressed concerns about the accuracy of models used in this process.*

**Response:** The committee understands the inherent problems of working with models. However, the committee feels that the best-available science was used within the models and it was reviewed by a panel of

experts prior to this process. In addition, the committee recommended that the assumptions found within the models should be tested using an adaptive monitoring approach. The committee acknowledges that while landscape-scale models are useful for making landscape scale recommendations, there is no substitute for project-level planning that includes ground-truthing and the use of reference conditions when available. Hence, the report recommends ground-truthing, the use of reference conditions, and the implementation of an adaptive management approach. Adaptive management allows the Forest Service to further validate the model's assumptions, to ensure that desired conditions are achieved and that, if projects need to be adjusted in order to achieve their desired outcomes, remedial actions may be taken.

**Comment:** *Several commenters expressed concerns that the use of proxies did not protect biodiversity.*

**Response:** The purpose of the CNFLRI was to produce restoration recommendations at a landscape scale. In order to reach that goal, it was necessary to use proxies (Nine Ecological Systems) that represent the forest types most likely to be found in the Cherokee National Forest. The committee acknowledges that while landscape scale models are useful for making landscape scale recommendations, the protection of biodiversity elements must include project level planning that includes ground-truthing and the use of reference conditions when available. Hence, the recommendations in the report include validation through ground-truthing, use of reference conditions, and implementation of an adaptive management approach. In order to clarify the landscape scale approach taken by the committee, language has been added to the section titled "How This Report Should Be Used" in the report's Discussion section. Additionally, the Cherokee National Forest RLRMP contains many provisions to protect biodiversity that are above and beyond the recommendations of the committee.

**Comment:** *The report does not adequately address the impacts of Forest Pests and Pathogens.*

**Response:** The committee did discuss forests pests and pathogens and this issue was raised in initial surveys and stakeholder interviews conducted by the CNFLRI. The steering committee addressed this issue in the section titled Forest Pests and Pathogens within the Recommendations section of the report. It agrees that each pest and pathogen that may or has invaded our forests is worthy of its own restoration effort, but, that is beyond the scope of this effort.

Several interviewees noted that the Cherokee's even-aged stands of older trees could prove to be less resilient to infestations of pests, such as Gypsy Moth. By creating a more diverse forest structure and ensuring that the forest is as healthy as possible, the committee feels that the forest will be more likely to resist disease and infestations. The proposed adaptive management response noted previously will also help to account for and manage impacts from current and future pests and pathogens as restoration efforts are initiated.

**Comment:** *The committee should remove or revise its recommendation regarding biomass and biofuels because it may create a demand for a timber product that cannot be met sustainably.*

**Response:** The committee is not trying to create a demand for biomass that the FS will have to supply, but to make restoration efforts more financially feasible and to get projects done that could not otherwise be funded. The committee feels it has addressed this concern with the language in the report referring to "ecologically beneficial restoration" in the recommendations section.

**Comment:** *The cost-benefit analysis did not accurately present a no-action or passive alternative to restoration.*

**Response:** The purpose of the CNFLRI was to develop a collaborative set of recommendations to the Forest Service about restoration. Therefore, the document focused on taking action. However, the committee recognizes that passive restoration may be the preferred option in many cases. Therefore, the committee

added language to clarify our intent in the section titled “How This Report Should Be Used” in the Discussion section.

“No action” was modeled and found not to be a viable approach to achieving a healthy Cherokee National Forest in the coming two decades. The “No Action” scenario (referred to as “No Management with Fire Suppression,” because of the need to continue wildland urban interface fire suppression efforts to protect private property and public safety) was considered for each forest type. Recommendations for active restoration were made only for forest types that were found to lack adequate improvement with passive management. For example, the Northern Hardwoods Ecological System was found to currently have a low ecological departure score and therefore, no restoration or management actions were recommended in that system other than to implement an adaptive management approach to ensure that the modeling was correct concerning the current and future health of that forest system.

**Comment:** *The initiative paints an unclear and ambiguous relationship between itself and forest planning. The scale of these recommendations should require a Forest Plan amendment.*

**Response:** The CNFLRI is a process that is independent of Forest Service planning. The recommendations put forth by CNFLRI do not change the current CNF RLRMP. Rather, the CNFLRI suggestions are intended to help implement the intent of the CNF RLRMP. The steering committee was convened by The Nature Conservancy and the final document will be presented to the Forest Service as a list of recommendations from the CNFLRI. Therefore, it is beyond the scope of the steering committee to determine if a Forest Plan amendment or revision is necessary. That is a decision to be made by the Forest Service itself. Changes to the language in the document have been made where word choices may have caused confusion for the reader. In addition, the Frequently Asked Questions document posted on our website has helped clarify that this effort does not supersede or interfere with the CNF RLRMP.

**Comment:** *The report does not address specific species concerns such as those that belong to rare communities and aquatic species deserving special attention, because they do not belong to any particular age class of forest.*

**Response:** The committee agrees that all species are important and refers the commenter to the report’s discussion of Rare, Threatened and Extirpated Species under the Recommendation’s section of the report. Additionally, the use of biophysical settings as a planning tool allows for a great deal of biodiversity that is covered under the “Biophysical Settings Report” in Appendix J and associated appendixes. At a landscape scale, looking at the entire north zone of the Cherokee Forest, it is not possible to address each unique or rare species individually. However, these species can be addressed at the project scale during planning and implementation. An additional statement has been added to the report to clarify the committee’s support for work to restore extirpated species. Furthermore, the USFS will still be required to follow current approaches in the USFS CNF RLRMP for evaluating areas and avoiding harm to rare communities as part of its project planning.

**Comment:** *The report does not address water quality.*

**Response:** The CNFLRI focused on restoring the expected biophysical settings to the North Zone of the Cherokee National Forest as the primary restoration approach. The health and condition of the forest is tied directly to the health of surface waters and groundwater recharge. Water quality is addressed in the report under the recommendations section in the subsection, “Watershed Approach” which specifically addresses the watershed planning framework under which any restoration projects will be carried out. The new watershed planning framework currently being followed by the USFS is explained further in Appendix G. Please see this section as well as the committee’s “Case Statement” at the beginning of the document where watershed health is

highlighted. In addition, the current USFS CNF RLRMP already addresses water quality and so the CNFLRI augments the CNF RLRMP plan with actions for restoration, but does not replace the CNF RLRMP.

**Comment:** *The Initiative should emphasize the role of Gap Phase Regeneration.*

**Response:** This is discussed in the report under the “Cove Forest” subsection of the recommendations section of the report. The Landfire Biophysical Settings used to inform this process do emphasize gap phase dynamics in many Ecological Systems.

**Comment:** *Add photos to the document to help illustrate forest types.*

**Response:** Photos have been added for each Ecological System.

**Comment:** *The report does not adequately address the need for restoration and the role of past logging practices.*

**Response:** The role of past management and land use practices is addressed in two places in the report, the “Case Statement” at the beginning of the document and the section on “Uncharacteristic Classes” (vegetation classes that would not naturally occur where they are currently found). The reasons for the presence of uncharacteristic classes in the forest are further discussed in the individual sections for recommendations covering each forest type. The report’s discussion on the reasons for an overabundance of uncharacteristic classes has been modified to add a description of the role of past management practices and land uses that led to the present degraded state of the Cherokee National Forest.

**Comment:** *The report does not adequately address old growth and the importance of biodiversity.*

**Response:** A new section has been added to describe the importance of and approach to old growth and biodiversity in the recommendations section under “S Classes and Biodiversity.” This section discusses the finding that early, open and old growth successional classes are not currently within their natural range of variability and provides a new recommendation that the Forest Service should harvest primarily from currently over-abundant mid-and late-age classes and continue to adhere to the Region 8 Guidance for old growth stands.

**Comment:** *A number of commenters questioned how gap sizes (openings) in the forest canopy were determined and how those recommended sizes for openings were derived. A number of commenters also questioned the size at which gaps are counted and the reasons for leaving out areas under two acres in size.*

**Response:** Areas less than two acres were not able to be included in current gap opening estimations because they are not monitored currently by the USFS. However, the report has been updated to recommend that, when feasible, naturally-occurring small gaps (under 2 acres in size) in Cove Forests should be tracked, but not counted, as early successional habitat. Committee members noted that they have reviewed technical literature concerning the need for a diversity of canopy opening sizes for bird and wildlife uses (however the literature is not specific for cove forests).

The committee’s subgroup on gap size had long discussions about the issue of the size of openings and did develop language all could agree upon, which resulted in recommending a range of opening sizes. Also, the report includes language which states that gap location and arrangements should be determined at the project level and will be based on current site conditions such as the location and arrangement of existing openings and slopes, among other site-specific factors.



**Comment:** *The restoration recommendations should take into account entire watersheds and lands outside forest boundaries.*

**Response:** While the committee agreed that this would be a laudable goal, the committee does not currently have information on private lands nor does it have a distinct management agency to make recommendation to concerning these additional lands, which are privately owned and under the jurisdiction of local or state government. Therefore, the committee focused on lands solely under the jurisdiction of the USFS. However, adjacent landowners were invited to public meetings and to comment on the final report.

**Comment:** *Restore the Beaver to the Cherokee.*

**Response:** While the committee agrees that beavers are an important species of the Appalachians and the Cherokee, species reintroduction was beyond its purview. It is hoped that restoration of a healthy forest will be more conducive to the return and abundance of most native species.

**Comment:** *Concern was expressed about the report's use of the word "should" in the statement that "timber management should produce marketable products."*

**Response:** The word "should" was changed to "could" in the section on "Economics, Feasibility and Contracts" under the report's Recommendations section.

**Comment:** *The model probably overestimated the acreage which is available or possible to treat using commercial harvest; some of those areas may instead need to be restored using other means.*

**Response:** The committee did consider where mechanical restoration treatments may not be allowed, such as in areas designated as Wilderness, to ensure that the CNFLRI is not recommending more treatment than could be done under the current CNF RLRMP. Please see Appendix E, "Implementation Analysis" for further information.

**Comment:** *The committee's final recommendations deviated from the U-B Gone model substituting regeneration harvest gap harvest and thinning treatments in Cove Forests. This should be stated explicitly.*

**Response:** The committee's final recommendations did not deviate from the U-B Gone model. We believe that this was a misunderstanding from meeting notes in which the committee discussed the definition of the gap harvest and thinning treatments. GAP harvest and thinning remains a recommended treatment in Cove Forest. Please see the Report's Appendix A.

**Comment:** *The recommendations seem to suggest that the Forest Service circumvent or bypass important environmental regulations.*

**Response:** Project development should involve early engagement (pre-scoping) in an open and inclusive process that maximizes participation by interested stakeholders. The pre-proposal phase offers valuable opportunities for effective collaboration between the agency and the public. At this stage, citizens can help Forest Service officials identify problems and shape proposed actions before the agency makes a formal proposal. By working with the agency in the initial stages of the project development, citizens have the opportunity to offer their own ideas and solutions prior to formal documentation.

This approach presents a great opportunity for avoiding conflict in later project proposals, or implementation phases and holds tremendous potential for projects to reflect the genuine principles of ecological restoration and for honoring community values and goals.

The CNFLRI recommendations are not intended to substitute for the normal NEPA public participation process, but rather to be a supplement to it. Members of the community, industry, conservationists and others can and

should participate in the NEPA process on their own and through the established USFS project development process. Like CNFLRI, other groups can (and should) make their own recommendations and engage on project design throughout the process.

Specific methods need to be employed that facilitate the integration of data drawn from the community and public, along with information supplied by the agency staff. The integration needs to be accomplished in an ongoing and collaborative manner, through such approaches as data sharing, mapping, field visits, distribution of GIS data, websites, and meetings where staff and citizens share information in an interactive problem-solving mode.

CNFLRI recommendations do not propose a replacement for the National Environmental Policy Act (NEPA) or any other environmental laws, but should, through early stakeholder engagement, uphold and complement the NEPA process, enhance public participation, increase opportunities for input and ultimately improve project development. This will provide for a more collaborative approach and go a long way toward avoiding conflict over projects between the USFS and public stakeholders.