Friends of the Clearwater
Keeping Idaho's Clearwater Basin Wild

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February 8, 2023

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Transmitted via internet portal: https://cara.fs2c.usda.gov/Public/CommentInput?Project=63102
and cc to: karen.hardwick@usda.gov and jeffrey.lau@usda.gov

Dear Mr. Lau and Ms. Hardwick:

This letter is comments on the Longleaf Proposed Action (PA) and scoping letter, on behalf of Friends of the Clearwater (FOC), WildEarth Guardians and Alliance for the Wild Rockies. We incorporate the January 17, 2023 comment letter of Harry Jageman within our comments. In our comments below, any text in quotes not otherwise attributed is from the PA.

The potential for significant impacts of this proposed project is high, given its scale (extent of clearcuts and road construction) and in consideration of past, ongoing, and foreseeable human impacts in a logically defined analysis area. The Forest Service (FS) must prepare an Environmental Impact Statement (EIS) in order to comply with the National Environmental Policy Act (NEPA). Preparation of an EIS would provide the additional public benefit of mandating written responses to all comments on the EIS—which would be at the point in the process when the public has had a chance to review yet-to-be released further details and the FS's analyses regarding the impacts of this huge proposal.

False statements, false premises and irrationality

Under "**Need for the Proposal**" the PA invokes "Forest Plan Direction: The entire Longleaf project area is within Management Area (MA), E1 – Timber Production. … The Forest Plan emphasizes restoration of western white pine within this management area." The truth is, under Management Area (MA) E1, the Forest Plan says nothing about white pine. With the PA starting off with a lie, where can it go from there?

Under "**Need for the Proposal**" the PA also alleges four **needs**:

- There is a need to address forest health issues
- There is a need to change the forested vegetation
- There is a need to reduce hazardous fuels
- There is a need stabilize the transportation system for future management access

If the FS were to simply admit this project is about timber production first and foremost, which is why building over 28 miles of new roads to clearcut up to 1,605 acres of forest is being proposed, that would be telling the truth. The PA finally states, as if an afterthought, "**There is a need** to provide social and economic benefits in accordance with Forest Plan direction associated with E-1 (timber producing lands) Management areas." (Emphasis added.) However this is found in a later section ("**Existing Vegetation Conditions**" under "Social and Economic") instead of in the earlier section "**Need for the Proposal**".

Apparently "there is a need" to avoid telling the truth. The FS wants to conduct massive clearcutting to subsidize an unsustainable timber program to the tune of untold millions of taxpayer dollars to help feed an insatiable economy that's destroying Earth's life support systems. The FS's fabrication of the above four "Needs" is an attempt to convince that there would some virtue to all the ensuing waste and destruction.

Under "**Need for the Proposal**" the PA claims, "The actions proposed in this project are intended to …move the forest toward the desired future conditions as described in the Clearwater Forest Plan (USFS 1987, pg. II -18,19)." The "desired future conditions" are extremely speculative, as Mr. Jageman's comments explain, providing no real direction for policy or conduct as do Forest Plan Standards and Guidelines. Under "**Existing Vegetation Conditions**" in the section "Structural Stage Distribution" the PA states, "Immature or early seral age class (0-4.9") is, depending on habitat type grouping, …nowhere near the 70% as desired in the 1987 Forest Plan." Clearly the FS is grasping for justifications to conduct massive clearcutting, and to the degree that the PA takes these "desired future conditions" to be policy direction it grossly misrepresents the Forest Plan.

The PA states:

> Specifically, the desired future conditions for the Clearwater National Forest by 2037 (pg. II-18) include long-term sustained yield of 440 million board feet of harvest (currently reduced to 80 million board feet of timber sold per year as part of the 1993 Stipulation Agreement [Wilderness Society 1993]), a forestwide drop in the mature timber age class to 30%, an increase in the immature age class to 70%, reforestation on those harvested acres, developing over 90% of the 509,000 acres of roadless land available for development, and adding 2,750 miles of road to the forest road system (pg. II-18).

Since the Forest Service's own subsequent Idaho Roadless Rule forbade most of that logging in roadless areas, the rest of those numbers thankfully went to oblivion. Which means it's nonsense for the FS to be invoking them in the context of this PA.

"Regeneration harvest is proposed as the most appropriate management approach to restore early-seral species (western white pine, western larch and ponderosa pine) on the landscape…" What scientific information supports clearcutting and subsequent planting of western larch and ponderosa pine on western redcedar and grand fir habitat types?

The PA's purpose and need statement is not in the spirit of NEPA, so a reasonable range of alternatives will not proceed from those premises. In a 2006 Opinion, the Ninth Circuit U.S. Court of Appeals stated: "We have noticed a disturbing trend in the [Forest Service's] recent timber-harvesting and timber-sale activities…It has not escaped our notice that the [Forest

Service] has a substantial financial interest in the harvesting of timber in the National Forest. We regret to say that in this case, like the others just cited, the [Forest Service] appears to have been more interested in harvesting timber than in complying with our environmental laws." *Earth Island Institute v. United States Forest Service* 442 F.3d 1147 (2006).

Cumulative effects

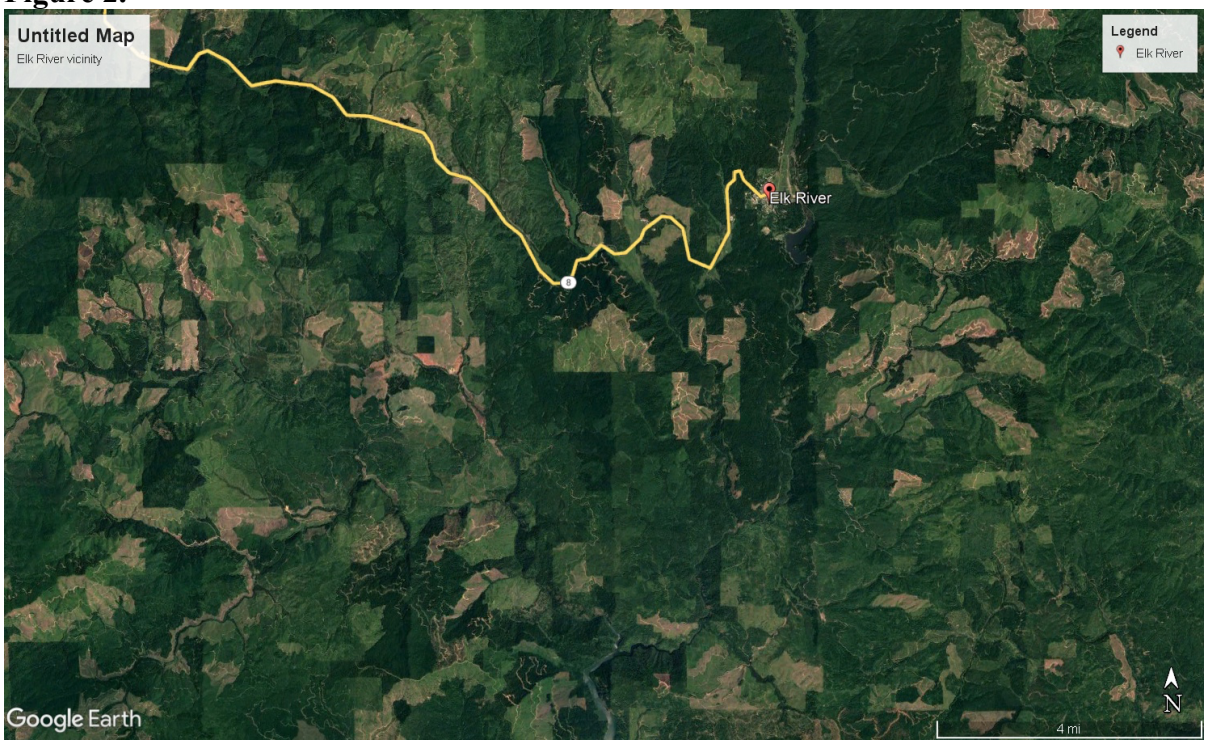
NEPA requires that high-quality information is available to the public and that NEPA documents concentrate on issues truly significant to the action in question. One highly significant issue is cumulative effects, including fostering understanding of how past actions may have led to the current conditions (good or bad), and therefore the next steps for management as laid out in the PA.

Figures 1 and 2 are images recently generated using software Google Earth, which the application states reflects 2016 data. Figure 1 shows approximately the same geographic area as the PA's Longleaf Vicinity map (p. 4).

Figure 1.

Next, Figure 2 is zoomed out somewhat to show the Longleaf vicinity in the context of the larger landscape:

Figure 2.



Obviously, the project vicinity and surrounding lands have suffered extremely heavy impacts from industrial-scale logging and other human management. The Longleaf EIS must analyze and disclose these cumulative impacts. This image also reinforces our impression that the FS is wrong to be prioritizing timber extraction above so many other values.

The Clearwater Forest Plan requires population trend monitoring of Management Indicator Species (MIS). By including MIS population trend monitoring requirements in the forest plan, the agency acknowledged, wisely, that it needed to verify its assumption that allowing old-growth habitat to be reduced to 10% forestwide (a level well below the NRV)—assures viability of such species. The FS has failed to meet its MIS monitoring commitments.

There can be no proper cumulative effects analysis in an EA tiered to a Forest Plan EIS, if the FS hasn't properly conduct the monitoring as directed by the Forest Plan. The Longleaf EIS must consider these problems. The Forest Plan in Chapter V states:

> Project environmental analyses provide an essential source of information for Forest Plan monitoring. First, as project analyses are completed, new or emerging public issues or management concerns may be identified. Second, the management direction designed to facilitate achievement of the management area goals are validated by the project analyses. Third, the site-specific data collected for project environmental analyses serve as a check on the correctness of the land assignment. All of the information included in the project environmental analyses is used in the monitoring process to determine when changes should be made in the Forest Plan.

Further, Forest Plan Chapter V states, "If funds are inadequate to properly monitor the Forest Plan goals, objectives, standards, and resulting environmental effects, an analysis will be made to develop a further course of action. This may include Forest Plan amendment or revision, or revising implementation schedules."

Forest Plan Chapter V mandates, "The Forest Supervisor shall review the conditions on the land covered by the Plan at least every 5 years to determine whether conditions or demands of the public have changed significantly." This is another aspect of planning (leading to informed decisionmaking) that is being ignored by the FS.

Wildlife species have already experienced severe habitat loss in the vicinity of the proposed project, which has been logged heavily by the FS and other owners in recent decades. Native species that would experience further habitat loss and fragmentation by the actions in this PA include fisher, marten, wolverine, grizzly bear, gray wolf, moose, northern goshawk, pileated woodpecker, black-backed woodpecker, moose, flammulated owl, white-headed woodpecker, boreal toads, long-eared myotis, long-legged myotis, fringed myotis, Townsend's big-eared bats and the Canada lynx. More industrial grade treatment on this Forest will harm the already tenuous process of recovery for the grizzly bear population in the Bitterroot Ecosystem.

The FS is also not required to provide written responses to comments on an EA, unlike as required by NEPA for an EIS. Apparently the FS wants to minimize public information and involvement.

The PA states:

> (T)he desired future conditions for the Clearwater National Forest by 2037 (pg. II-18) include long-term sustained yield of 440 million board feet of harvest (currently reduced to 80 million board feet of timber sold per year as part of the 1993 Stipulation Agreement [Wilderness Society 1993]), a forestwide drop in the mature timber age class to 30%, an increase in the immature age class to 70%, reforestation on those harvested acres, developing over 90% of the 509,000 acres of roadless land available for development, and adding 2,750 miles of road to the forest road system (pg. II-18). The purpose of this project is to improve overall forest health and ecological function and move toward desired future conditions as described in the Clearwater Forest Plan (USFS 1987, pg. II -18,19).

Therefore the project EIS must analyze and disclose the FS accomplishment or progress over the 35+ years of Forest Plan implementation, in light of any problems it has discovered in trying to carry out all of this industrialization of the Forest. So for example, as part of this snapshot of "The Forest in 2037" (Forest Plan), how far along is the FS toward accomplishment of "Streams in existing developed areas (as of 1987) that were below standards established in the Plan will have been improved by the fifth decade to meet Forest water quality standards" (Id.)? Please start with the streams that would be directly or indirectly affected by the Longleaf proposal.

"These treatments seek to enhance past reforestation efforts." "Species distribution has changed due to past harvest and reforestation activities as previously mentioned." Are you talking tree species here? In any case the EIS must disclose what specific past FS management "activities" have occurred in a properly defined cumulative effects analysis area. It must explain the goals,

objectives etc. of those projects as expressed in associated NEPA documents. It must disclose the degree to which the goals, objectives etc. of those projects were met—and if they weren't, why not. It must disclose any significant unintended consequences of those projects, plus any fiscal or environmental impacts the earlier NEPA did not anticipate.

The FS has never taken into account wider cumulative effects issues, especially as they affect many ESA-listed and other rare wide-ranging wildlife species. As of early 2021, FS data indicates the agency granted requests from officials of the national forests in the Northern Region to approve 93,056 acres of supersized forest openings by logging (clearcuts and other types of "regeneration" logging), with another 18,650 acres pending approval.[1] Together, managers of the Idaho Panhandle National Forests and the Nez Perce-Clearwater National Forests requested over half of this acreage. "Supersized" means openings that require Regional Forester approval to exceed the National Forest Management Act (NFMA) normal size limitation of 40 acres. The Longleaf proposal features 915 acres of supersized clearcuts, of the 1,605 total acres of clearcuts it proposes.

The situation with the Sensitive species Northern Rockies fisher exemplifies the concerns this massive clearcutting raises. The FS does not have an understanding of the existing fisher population in the project vicinity, forestwide, nor across its contiguous historical range. The fisher utilizes landscapes with large, interconnected patches of old growth and mature forest. Spatial proximity among these forest patches is a stronger predictor of fisher use than mere abundance of mature and old forest. Results of scientific studies reveal that fishers are reluctant to stray from forest cover and that they prefer more mesic forests as found in the project area. The range-wide reduction in intact fisher home ranges from pre-logging days until now is enormous. The FS has never examined this situation in terms of the prospects for long-term fisher persistence on the Forest, across north Idaho, and range-wide.

The Forest Service would be illegally implementing the Draft Revised Forest Plan

"The actions proposed for this project are in compliance with law, regulations and policy, to include the **Nez Perce-Clearwater Forest National Land Management Plan (as revised**, 1987)." (PA, emphasis added.) It seems the FS is putting the cart before the horse.

The PA says under **Dominance types**: "The project area is comprised primarily of western redcedar habitat types though grand fir habitat types become more common in the southern end of the project as elevation, aspect, slope, and soil types change." And under **Need for the Proposal** it states, "Comparison of current stand cover types with a map of 1934 cover types based on the Interior Columbia Assessment indicate that most of the project area had been western white pine cover type" and "Historically, the western white pine dominance type would have been the most common in the project and surrounding landscape area… (and) is currently almost completely absent in the project area." The Forest Plan and its FEIS do not use the concepts of "dominance types" or "cover types", so please bring these concepts into the realm of peer-reviewed science. Using terms such as "dominance types" "cover types" and "habitat types" in the PA resembles terminology found in the draft revised forest plan (RFP).

As of the release of this PA, use of "dominance types" has been proposed in the draft revised

[1] THE CLEARCUT KINGS: The US Forest Service Northern Region and its obsession with supersized clearcuts.

forest plan and its EIS (RFP) but has not undergone the full environmental review process. We commented in great detail on the NPCNF's draft revised forest plan, including its "desired" vegetation conditions. The FS has yet to release any responses to comments on the draft RFP/Draft EIS. Therefore we cannot be adequately informed by the FS's responses to public concerns.

Failure to provide for diversity under NFMA

"Root disease was determined to be the major cause of mortality in stands within the project area." Root disease is natural agent of tree mortality. Root disease might be of concern in a tree farm—but this is a forest. Fire, insects & tree diseases are endemic to our forests and are natural processes characteristic of an evolving, self-regulating ecosystem. They provide for a diversity of plant and animal habitat greater than management/manipulation has ever achieved on this Forest. In heavily logged areas there is less of native plant and animal diversity and more invasive species. These natural processes provide benefits. For example, cavity-nesting birds rely on insects in forests. Just as cavities excavated by woodpeckers provide benefits for other birds and wildlife, there are benefits from mistletoe, bark beetles, root rot fungi and other pathogens. The EIS must present analysis about the ecological benefits of insects, tree diseases, and other agents of tree mortality and avoid vilifying them as does this PA.

The "Additional Proposed Activities" include "Leaving of other indigenous plant communities such as Pacific Yew." Please explain what is meant by "indigenous plant communities" and what "leaving" them means.

Fire policy and fire ecology

The PA represents the position that "hazardous fuels" are the overriding threat to private property and structures. This runs counter to best available scientific information. The EIS must disclose that fuel moisture, weather, and topography are the factors having most influence on fire behavior, severity, and spread. During hot, dry, and/or windy conditions, no amount of "fuel reduction" would significantly alter any of the FS's ill-defined metrics and fire concepts. It is during those conditions when wildland fires most quickly affect the most acres, largely nullifying "fuel reduction" and suppression efforts.

The EIS must explain why the vast majority of American taxpayers, many millions of them still struggling to recover economically from the COVID-19 pandemic, should be at all willing to subsidize the perceived safety of those few of us lucky enough to live in the vicinity of forests and other natural places. We say "perceived" because the fire protection for homeowners the FS promotes is pretty much imaginary. As scientists have demonstrated, and as we explain below, responsibility for reducing risk of fire burning private structures rests squarely on the shoulders of the owners of those structures—not on U.S. taxpayers.

The EIS must address the well-documented skepticism toward its strategy of using logging to reduce future fire behavior, especially logging of mature forests that could otherwise serve as fire refugia. It is increasingly understood and accepted that reducing fuels does not consistently prevent large fires and does not reduce the outcome of these fires. The scientific controversy surrounding this issue must be disclosed in the EIS.

The EIS must disclose if actions have been, or are being taken to reduce fuels near the private structures the FS claims will be somehow protected by the Longleaf project, or how those activities (or lack of) will impact the overall efficacy of the proposed activities.

The nine-part Wildfire Research Fact Sheet Series was produced by the National Fire Protection Association (NFPA)'s Firewise USA® program, as part of the NFPA/USDA Forest Service cooperative agreement and with research provided by the Insurance Institute for Business and Home Safety (IBHS). It is a product of the research done by the IBHS lab in South Carolina, covering a wide range of issues. This Firewise approach also begs the question—why isn't the FS implementing an aggressive outreach and education program to assist homeowners living in and near project areas and elsewhere in the so-called WUI?

Research findings indicate that a home's characteristics and the conditions of a home's immediate surroundings within 30 meters principally determine the potential for wildland-urban fire destruction. This area, which includes the home and its immediate surroundings, is termed the home ignition zone. The home ignition zone implies that activities to reduce the potential for wildland-urban fire destruction can address the necessary factors that determine ignitions and can be done sufficiently to reduce the likelihood of ignition.

The PA emphasizes actions that attempt to adapt a fire-prone ecosystem to the presence of human development, however we firmly believe the emphasis must be the opposite—assisting human communities to adapt to the fire-prone ecosystems within which they've been built.

Scientific evidence does not support the hypothesis that intensive, landscape scale logging activities reduce risk of fires.

Ultimately the PA reflects an overriding bias favoring vegetation manipulation and resource extraction via "management" needed to make the forest resemble some selected desired conditions, along the way neglecting the ecological processes driving these ecosystems. Essentially the FS rigs the game, as its desired conditions would only be achievable by resource extractive activities. But since desired conditions must be maintained through repeated management/manipulation the management paradigm conflicts with natural processes—the real drivers of the ecosystem. The FS must first finish forest plan revision to consider the long-term impacts of this management paradigm relying upon repeated—indeed perpetual—"fuel reduction."

We strongly support government actions that facilitate cultural change towards private landowners taking the primary responsibility for mitigating the safety and property risks of fire inherent to these fire prone ecosystems, by implementing firewise activities around their property. Indeed, the best available science supports such a prioritization.

The EIS must include a thorough discussion and detailed disclosure of the current fuel situation within the fireshed within and outside the proposed treatment units, to support any conclusions about the manner and degree to which fire behavior would be changed by the project.

Furthermore, the PA's mention of "hazardous fuels" implies only a brief snapshot in time. Facing the reality of the nature of these ecosystems involves considering longer durations of time, not just a snapshot immediately post-action/treatment, etc. So the implications of the fact that re-

treatment or other maintenance of treated areas will be necessary for continued effectiveness must be analyzed.

"Through successful suppression efforts over the past century, fire has not played a role as a disturbance feature within the project area. These now dominant species are not fire resilient tree species." One may logically attribute this alleged situation to direction found in the Forest Plan. A Forest Plan (Protection) Goal for MA E1 is: a. Limit the size of individual wildfires:

1) To one acre or less in immature timber stands especially plantation, thinned areas, etc.
2) To 40 acres or less in mature timber.
3) To 500 acres or less in brush fields.

Also, Forest Plan 9. Standard (Protection) for MA E1 reads:

a. Confine, contain, or control wildfires.
b. See Appendix D for supplementary fire management direction.

Please identify in the Forest Plan FEIS the pages where it analyzes and discloses that Forest Plan implementation of the above wildfire control direction would lead to a situation where "dominant species are not fire resilient tree species." Please identify in the Forest Plan FEIS where the FS analyzed the long-term impacts of this management direction on "resilient tree species" and for "resilience of the forest".

The proposed logging is claimed to be necessary to "increase the resilience of the forest to insects, disease, and fire" however these notions lack scientific support and are fraught with scientific controversy. An EIS must be prepared.

"The middle 1/3 of the project area occurs within Clearwater County's designated Rural Lands WUI." Where does the Forest Plan FEIS analyze and disclose the impacts of the management actions implied by this WUI designation?

"These treatments would also lead to successful suppression with less exposure to firefighters." The implication is that that incident managers will be making choices to subject firefighters to dangerous situations. This is contradicted time and time again where wise and prudent managers avoid doing exactly that—which is their primary duty in the case of wildfire, by the way.

"The purpose of these treatments will be to reduce potential fire intensity and severity." The EIS must disclose scientific information that indicates those goals are misinformed. The EIS must disclose scientific information that indicates those goals are not realistically achievable.

"Additionally, treatments are proposed to help move the Fire Regime Condition Class (FRCC) toward Class 1 or maintain those conditions where they exist." The EIS must disclose scientifically-acknowledged limitations of FRCC methodology.

"The most recent large fire, Johnson Creek occurred in 2021." Please disclose how the FS's theory of there being a lack of resiliency to fire was evidenced when the Johnson Creek fire burned. Please disclose the same for other fires in recent years on the Clearwater National Forest.

High-severity fire is ecologically important. Snag forest habitat is one of the most ecologically important and biodiverse forest habitat types in western U.S. conifer forests. The EIS must

consider these scientific facts.

Access and travel management

Within these comments we incorporate FOC'S written contributions during the NEPA and appeal processes concerning the Clearwater National Forest Travel Plan. We also incorporate FOC's August 27, 2014 letter to the Forest Supervisor concerning the Nez Perce-Clearwater National Forests' travel analysis (36 CFR § 212 Subpart A). And we incorporate our comments on the Draft Revised Forest Plan, concerning roads, found on pp. 301-323.

The EIS must demonstrate the FS is managing the project area and forest consistent with the Travel Management Regulations (36 CFR 212) Subpart A which requires the FS to involve the public while conducting a science-based analysis to identify the minimum road system needed to manage the Forest ecologically sustainably and within expected budgets.

Lacking a proper travel analysis, there is no way for the public to expect the post-project road and trail network would be affordable and maintenance needs could be addressed by expected budgets—or if the erosive forces of nature will be the main manager of the transportation network instead.

Forestwide, roads are not being maintained as needed. In the CNF's January 7, 2003 Roads Analysis Report it states:

> **Key Findings: Road maintenance funding is not adequate to maintain and sign roads to standard.**
>
> This road analysis clearly shows that annual appropriated maintenance funding is inadequate to maintain the current road system on the Forest. Many roads will continue to build up additional deferred maintenance costs and degrade unless increases in road management funding become available.

Also, "Road maintenance funding is not adequate to maintain and sign roads to standard. …Congressionally appropriated road maintenance funding is approximately 22% of what is needed for the current classified road system." (*Id*.)

Also, "Congressionally appropriated road maintenance funding is approximately 9% of what is needed for the current classified road system." (Nez Perce National Forest Roads Analysis Report, 2006.) That report also admits:

> Some arterial, collector and local roads are not being maintained to specified standards. In some areas the road system will continue to degrade and this will affect future access to areas served by these roads.

The EIS must demonstrate that the FS has implemented or applied the minimization criteria in the route and area designation process (Travel Management regulations Subparts B and C), consistent with the objective of minimizing impacts.

Please analyze and disclose the locations, extent, and ongoing impacts caused by all of the "unauthorized routes within the project area". This is of heightened concern because the PA suggests ecological liabilities may go unaddressed with this proposal: "unauthorized routes **may**

be evaluated and identified for obliteration **as future funding becomes available**" or "**where time and resources allow**" (emphases added). The fact that these impacts would likely remain chronic potentially neutralizes the expressed objective: "Decrease sediment sources to maintain or improve water quality and aquatic habitat."

The EIS must analyze and disclose the effectiveness of motorized route restrictions, which also includes the FS's own capability to enforce closures.

The EIS must analyze and disclose the many adverse environmental impacts posed by roads on the landscape.

Standard Design Elements

The PA says these "are generally identified early in the NEPA process as part of developing the Proposed Action" but then fails to list and describe them. It cites other documents where they are apparently found, but the contents of those other documents are not necessarily stable over time, so that is not helpful.

Social and Economic Benefits

"There is a need to provide social and economic benefits…."

Please disclose the itemized costs for each of the following: new temporary roads, project-related road maintenance, road decommissioning, all other road-related work, sale preparation and administration, project-related weed treatment, other project mitigation, post-project monitoring, environmental analyses and reports, public meetings and field trips, publicity, consultation with other government agencies, responding to comments.

How much will the implementation of all aspects of this project cost U.S. taxpayers?

Please see our comments on the Draft Forest Plan and its Draft EIS, for a discussion of economics. We fully incorporate those comments by reference.

Please consider the economic impacts on local economies of climate change, considering the multiple crises humanity will face under the regime of denial and inaction as reflected in the PA.

Climate change and carbon sequestration

The desired future conditions the PA mentions don't account for climate change. The word "climate" doesn't even appear in the PA. The Draft EIS for the NPCNF's revised forest plan includes the following definitions:

> Carbon Pool: an area that contains an accumulation of carbon or carbon-bearing compounds or having the potential to accumulate such substances. May include live and dead material, soil material, and harvested wood products.
>
> Carbon Stock: the amount or quantity contained in the inventory of a carbon pool.

The Idaho Panhandle NF Forest Plan EIS defines carbon sequestration: "…the process by which atmospheric carbon dioxide is taken up by vegetation through photosynthesis and stored as carbon in biomass (trunks, branches, foliage, and roots) and soils."

The Draft EIS for the NPCNF's revised forest plan states, "Forests store large amounts of carbon in their live and dead wood and soil and are an important carbon sink, removing more carbon from the atmosphere than they are emitting (Pan, 2011)." The Longleaf EIS must examine scientific information that strongly implicates logging as increasing net carbon emissions to the atmosphere across the acres logged, over at least several decades.

Please analyze how proposed management actions would cumulatively interact with likely climate change scenarios. Please quantify all human-caused CO_2 emissions for all project activities. Please quantify carbon sequestration for each alternative. Please disclose how climate change has affected ecological conditions in the project area, and include an analysis of these conditions under climate change scenarios.

The U.S. District Court of Montana ruled (Case 4:17-cv-00030-BMM) that the Federal government was required to evaluate the climate change impacts of the federal government coal program. The Federal government is also obligated to evaluate the climate change impacts of its forest policies.

In March 2019, U.S. District Judge Rudolph Contreras in Washington, D.C., ruled that when the U.S. Bureau of Land Management (BLM) auctions public lands for oil and gas leasing, officials must consider emissions from past, present and foreseeable future oil and gas leases nationwide. The FS is likewise obligated to consider emissions from past, present and foreseeable forest plan implementation activities.

In March of 2018 the U.S. District Court of Montana found the BLM Miles City (Montana) and Buffalo (Wyoming) Field Office Resource Management Plans unlawfully overlooked climate impacts of coal mining and oil and gas drilling. The Draft EIS for the NPCNF's revised forest plan admits, "The current 1987 Forest Plans do not address climate change."

Global warming and its consequences are effectively *irreversible* which implicates certain legal consequences under NEPA and NFMA and ESA (e.g., 40 CFR § 1502.16; 16 USC §1604(g); 36 CFR §219.12; ESA Section 7; 50 CFR §§402.9, 402.14). All net carbon emissions from logging represent "irretrievable and irreversible commitments of resources."

The 2016 CEQ guidance[2], issued on August 1, 2016, acknowledges, "changes in our climate caused by elevated concentrations of greenhouse gases in the atmosphere are reasonably anticipated to endanger the public health and public welfare of current and future generations." It directs federal agencies to consider the extent to which a proposed action such as Longleaf would contribute to climate change. It rejects as inappropriate any notion that this timber sale is of too small a scale for such consideration:

> Climate change results from the incremental addition of GHG emissions from millions of individual sources, which collectively have a large impact on a global scale. CEQ recognizes that the totality of climate change impacts is not attributable to any single action,

[2] Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews.

> but are exacerbated by a series of actions including actions taken pursuant to decisions of the Federal Government. Therefore, a statement that emissions from a proposed Federal action represent only a small fraction of global emissions is essentially a statement about the nature of the climate change challenge, and is not an appropriate basis for deciding whether or to what extent to consider climate change impacts under NEPA. Moreover, these comparisons are also not an appropriate method for characterizing the potential impacts associated with a proposed action and its alternatives and mitigations because this approach does not reveal anything beyond the nature of the climate change challenge itself: the fact that diverse individual sources of emissions each make a relatively small addition to global atmospheric GHG concentrations that collectively have a large impact.

So the EIS must quantify GHG emissions. The agency can only use a qualitative method if tools, methodologies, or data inputs are not reasonably available, and if that is the case, there needs be rationale as to why a quantitative analysis is not warranted. There are plenty of quantitative tools for such an analysis (e.g., https://ceq.doe.gov/guidance/ghg-accounting-tools.html).

NEPA requires disclosure of impact on "the human environment." Climate risk presents overarching adverse impacts on cultural, economic, environmental, and social aspects of the human environment—people, jobs, and the economy—adjacent to and near the Forests. Challenges in predicting responses of individual tree species to climate are a result of forest and species responses to a novel climate regime.

There is extremely urgent scientific concern expressed over the imminent effects of climate change on the earth's ecosystems, and therefore on civilization itself. The IPCC's 2018 report states that if greenhouse gas emissions continue at the current rate, the atmosphere will warm up by as much as 2.7 degrees Fahrenheit (1.5 degrees Celsius) above preindustrial levels by 2040, inundating coastlines and intensifying droughts and poverty. The report provides a strong warning that the immediate consequences of climate change will be severe, and says that avoiding the damage requires transforming the world economy at a speed and scale that has "no documented historic precedent."

The 2018 IPCC report describes a world of worsening food shortages and wildfires, and a mass die-off of coral reefs as soon as 2040—a period well within the lifetime of much of the global population. The authors of the 2018 IPCC report project that if greenhouse gas emissions continue at the current rate, the atmosphere will warm by as much as 2.7 degrees Fahrenheit (1.5 degrees Celsius) above preindustrial levels by 2040, inundating coastlines and intensifying droughts and poverty. Previous work had focused on estimating the damage if average temperatures were to rise by a larger number, 3.6 degrees Fahrenheit (2 degrees Celsius), because that was the threshold scientists previously considered for the most severe effects of climate change. The 2018 IPCC report, however, shows that many of those effects will come much sooner, at the 2.7-degree mark.

It's time to analyze and disclose the fact that the NPCNF can no longer "insure that timber will be harvested from the National Forest system lands only where…there is assurance that such lands can be restocked within five years of harvest." [NFMA §6(g)(3)(E)(ii)]. In a similar vein, the FS must explain how lands were determined to be suitable for the type of management being proposed. What is the specific documentation which determined that the specific areas proposed

for logging in the PA are suitable for timber production? Did that documentation anticipate the now widely recognized implications for forests of climate change?

The 2012 Planning Rule recognizes, in its definition of *Ecosystem services*, the "Benefits people obtain from ecosystems, including: (2) *Regulating services,* such as long term storage of carbon; climate regulation…"

Best available science supports the proposition that forest policies must shift away from logging and carbon sequestration be prioritized.[3] Forests must be preserved indefinitely for their carbon storage value. Forests that have been logged should be allowed to convert to eventual mature and old-growth conditions. This type of management has the potential to double the current level of carbon storage in some regions.

Climate change science suggests that logging alleged to sequester carbon, logging alleged to reduce wildfire, and other manipulation of forest stands does not offer benefits to climate. Rather, increases in carbon emissions from soil disturbance and drying of forest floors would result. The FS must best address climate change through minimizing development of forest stands and allowing natural processes to proceed. Furthermore, any carbon sequestration alleged from logging and forest products is more than offset by carbon released by ground disturbing activities and from the burning of fossil fuels to accomplish the timber sale. Reducing fossil fuel use is imperative.

Given the urgency of preventing additional greenhouse gas emissions to the atmosphere and foster carbon sequestration to protect the climate system, it would be best to protect forests for their carbon stores, and also for their co-benefits of habitat for biodiversity, resilience to drought and fire, and microclimate buffering under future climate extremes.

USDA Forest Service, 2017b[4] discusses some effects of climate change on forests, including the following statement: "In many areas, it will no longer be possible to maintain vegetation within the historical range of variability. Land management approaches based on current or historical conditions will need to be adjusted."

Water quality and fish

The EIS must describe the abundance, demographics, and health of aquatic native species populations in the streams in the cumulative effects analysis area. The EIS must take a hard look at the conditions of all streams and water bodies in the affected watersheds, and explain how those conditions contribute to native species populations and trends. The EIS must disclose the populations of fish species in the project area, and compare the numbers to minimum viable populations.

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[3] "More logging and reforestation occur annually in the U.S., including on our public lands, than in any other nation in the world." John Muir Project of Earth Island Institute 2018. *Protecting Forests from Logging: The Missing Piece Necessary to Combat Climate Change*. *See also* Hansen et al 2013 High-resolution Global Maps of 21st-Century Forest Cover Change. Science 342: 850-853; Prestemon, J.P., et al. 2015. The global position of the U.S. forest products industry.

[4] USDA Forest Service, 2017b. Draft Environmental Impact Statement. Pine Mountain Late-Successional Reserve Habitat Protection and Enhancement Project. Pacific Southwest Region April 28, 2017

Forest Plan standards include, "Secure favorable condition of flow by maintaining the integrity and equilibrium of all stream systems." The EIS must demonstrate that integrity and equilibrium of all stream systems is being maintained, and demonstrate consistency with all Forest Plan direction including:

> Design, schedule and implement management activities that would: 1) maintain water quality and stream conditions that are not likely to cause sustained damage to the biological potential of the fish habitat, 2) not reduce fish habitat productivity in the short-term below the assigned standard, 3) maintain water quality in a condition that is not likely to inhibit recovery of the fish habitat…

The 2014 National Climate Assessment Chapter for the Northwest[5] also recognizes hydrologic challenges ahead: "Changes in the timing of streamflow related to changing snowmelt are already observed and will continue, reducing the supply of water for many competing demands and causing far-reaching ecological and socioeconomic consequences."

The EIS must determine Landslide Prone Road Density to analyze project area watershed risks and current conditions.

The EIS must consider cobble embeddedness data in regards to demonstrating forest plan consistency and to best recover and maintain habitat integrity.

The EIS must disclose if the Idaho Department of Environmental Quality has approved a Total Maximum Daily Load (TMDL) for project area waterbodies, and demonstrate how project activities affect attainment of all water quality direction found in the TMDL, the forest plan, and EPA guidance.

The EIS must disclose the amount of sediment entering water bodies under all alternatives.

Soil

The Clearwater Forest Plan includes the Forestwide Goal to "Insure that soil productivity is maintained and no irreversible damage occurs to soil and water resources from Forest management activities." The EIS must explain how 35+ years forest plan implementation have met this standard.

Clearwater Forest Plan Soil Standard #11(a) states, "Manage activities on lands with ash caps such that bulk densities on at least 85 percent of the area remain at or below 0.9 gram/cubic centimeter." The EIS must demonstrate consistency with this standard. The contrasting Forest Plan limitations on increase in bulk density and Region 1 policies regarding limiting detrimental soil conditions must be reconciled.

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[5] Mote et al. 2014. Ch. 21: Northwest. Climate Change Impacts in the United States: The Third National Climate Assessment, J. M. Melillo, Terese (T.C.) Richmond, and G. W. Yohe, Eds., U.S. Global Change Research Program, 487-513. doi:10.7930/J04Q7RWX. http://nca2014.globalchange.gov/highlights/regions/northwest

The Forest Plan includes Forest Plan Monitoring Requirement 11, requiring monitoring of "Site Productivity"[6] to be measured annually, and contains a "Research Need" to "Determine the effect of different fire intensities on basic soil fertility." Here again, cumulative effects analyses are uninformed where monitoring efforts have faltered.

The NPCNF's American River/Crooked River project FEIS (2005) stated: "Cumulative effects may also occur at the landscape level, where large areas of compacted and displaced soil affect vegetation dynamics, runoff, and water yield regimes in a subwatershed."

Some soil properties are discussed in the Forest Service's Harvey et al., 1994[7], including:

> The ...descriptions of microbial structures and processes suggest that they are likely to provide highly critical conduits for the input and movement of materials within soil and between the soil and the plant. Nitrogen and carbon have been mentioned and are probably the most important. Although the movement and cycling of many others are mediated by microbes, sulfur phosphorus, and iron compounds are important examples.
>
> The relation between forest soil microbes and N is striking. Virtually all N in eastside forest ecosystems is biologically fixed by microbes... Most forests, particularly in the inland West, are likely to be limited at some time during their development by supplies of plant-available N. Thus, to manage forest growth, we must manage the microbes that add most of the N and that make N available for subsequent plant uptake. (Internal citations omitted.)

Amaranthus, Trappe, and Molina (in Perry, et al., 1989a[8]) recognize "mycorrhizal fungus populations may serve as indicators of the health and vigor of other associated beneficial organisms. Mycorrhizae provide a biological substrate for other microbial processes." The EIS must analyze and disclose how management-induced damage to ectomycorrhizal networks causes site productivity reductions.

Mycorrhizal networks play important roles in mitigating the impacts of climate disruption to forest ecosystems. They facilitate regeneration of migrant species that are better adapted to warmer climates and primed for resistance against insect attacks. To achieve these benefits all of the parts and processes of highly interconnected forest ecosystems must be preserved and protected.

Mycorrhizal fungi distribute photosynthetic carbon by connecting the roots of the same or

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[6] Defined in the Forest Plan as "Production capability of specific areas of land", which is similar to the definition of soil productivity.

[7] Harvey, A.E., J.M. Geist, G.I. McDonald, M.F. Jurgensen, P.H. Cochran, D. Zabowski, and R.T. Meurisse, 1994. Biotic and Abiotic Processes in Eastside Ecosystems: The Effects of Management on Soil Properties, Processes, and Productivity. GTR-323 93-204 (1994)

[8] Perry, D. A.; R. Meurisse, B. Thomas, R. Miller, J. Boyle, J. Means, C. R. Perry, and R. F. Powers *Eds*; 1989a. Productivity of Pacific Northwest Forest Ecosystems. Timber Press, Portland, Oregon in cooperation with College of Forestry, Oregon State University.

different tree species in a network allowing each to acquire and share resources. Large mature trees become the hubs of the network and younger trees the satellite nodes.

Mycorrhizal networks transmit water, carbon, macronutrients, micronutrients, biochemical signals and allelochemicals from one tree to another, often from a healthy tree to a tree in need. This type of source-sink transfer has been associated with improved survivorship, growth and health of recipient trees in the network.

Recognition of kin is also evident between established large hub trees and their seedlings and saplings. Hub trees shuttle to their kin more micro-elements and support more robust mycorrhizal networks, providing them with life needs. However, hub trees also share resources with non-kin, suggesting these evolutionary mechanisms exist not just for individual species but also at the community level.

Understanding forest ecosystems means changing our perception of how forests function and abandoning the FS's entire "healthy forests" framework. Our forests are not sick, they do not need chainsaw medicine. In fact, forests are cooperative systems that are essential for mitigating global climate disruption and addressing the biodiversity crises we face.

The EIS must also account for cumulative, long-term losses in site or land productivity due to noxious weed infestations spread or facilitated by management actions. Friends of the Clearwater sampled three national-forest sites in the Palouse Ranger District a couple of years ago. One of those sites had mature trees, one area was logged within the last 20 years, and the final site within the last 10 years. On the final site, we observed the occurrence of ventenata, a nonnative, invasive, annual grass that has spread in disturbed and managed areas in the Pacific Northwest. It is difficult to eradicate once it is established. Because ventenata dries out more quickly than other annual grasses, it is highly flammable for the fire season and will create a fire risk that does not now exist in the logging units. It also causes the decline of land productivity, which directly impacts reforestation prospects in logged areas. The Longleaf EIS must consider, analyze and disclose the spread of ventenata in the project area and across the Palouse Ranger District.

Old-growth and mature forests

The Clearwater Forest Plan defines "viable population" as "A population which has adequate numbers and dispersion of reproductive individuals to ensure the continued existence of the species population in the planning area." The FS has not ensured that a viable population of old-growth associated species is being maintained, given the context of the depletion of such habitat over the life of the forest plan and over past century.

"Size class is a classification of predominant mean diameter at breast height and is used as a general proxy for seral stage, developmental stage, and/or structural stage. … The total percentage of the project area falling into the mature age classes is significantly outside of desired conditions." What is the definition of "mature age class" and how would a concerned citizen be able to measure conditions in the forest to see if an area is of a "mature age class"?

Forest Plan Management Area E1 Timber standards include, "Identify and maintain suitable old-growth stands and replacement habitats for snag and old-growth dependent wildlife species in accordance with criteria in Appendix H." The PA doesn't even mention old growth. The EIS

must demonstrate project consistency with all old-growth direction, including the 1993 settlement agreement that is effectively a part of the 1987 Forest Plan.

Scientific integrity

As part of the incorporated comments on the draft RFP, we included a section entitled "NEPA – Scientific Integrity." Again, these comments incorporate our draft RFP comments in their entirety as comments on the Longleaf proposal. Although the context of those comments is the programmatic planning level, much of the discussion applies to project planning.

Livestock Grazing

The PA identifies one of the **Other Known Resource Concerns** being **"**Preserve and enhance economic value of range allotment by creating transitory range." How "range resources" are managed have implications for forest conditions, and vice versa. The EIS must analyze and disclose ecological conditions in the cumulative effects analysis area related to livestock grazing.

As part of the incorporated comments on the draft RFP, we included a section entitled "Livestock Grazing." Again, these comments incorporate our draft RFP comments in their entirety as comments on the Longleaf proposal. Although the context of those comments is the programmatic planning level, the discussion applies to projects such as Longleaf.

Grizzly bears

Since there is solid documentation of recent grizzly bear presence on the NPCNF, occupancy should be considered well established. Formal consultation on the Forest Plan is out of date. And formal consultation with the USFWS is needed for this project.

The U.S. Fish and Wildlife Service's most recent Five-Year Status Review regarding grizzly bear recovery declared the grizzly bear in the lower 48 states "remains likely to become in danger of extinction within the foreseeable future throughout all of its range." It also acknowledges that viability of the grizzly bar population as a whole "only increases under the two optimistic future scenarios, which rely on increases in conservation efforts such that the Bitterroot Ecosystem and North Cascades support resilient populations." In other words, grizzly recovery in the Bitterroot Ecosystem (BE) is a lynchpin to achieving a long-term, sustainable, viable grizzly population in the entire lower 48 states.

The grizzly bear known as 927 spent a good portion of 2019 in the Clearwater National Forest in the vicinity of the upper Lochsa River watershed and Lolo Pass. Referring to this grizzly, your Dead Laundry Biological Evaluation states, "One verified grizzly bear observation was been recorded within the Deadwood-Moose Creek and Elizabeth-North Fork HUCs in 2019."

Grizzly bear habitat quality on the Forest and in the BE is still potentially outstanding, but will serve recovery only if strong steps are taken to remove the human impediments to natural recovery. Recovery of the grizzly requires its population to grow and its range to expand, especially in anticipation of the impending impacts of climate change.

Potential effects to grizzly bears from the Longleaf timber sale would include potential long-term disturbance or displacement due to human presence, road construction and use, motorized use and other mechanized equipment. The presence of these activities and the presence of roads leads grizzly bears to avoid otherwise suitable habitat.

Rocky Mountain Elk

The science is clear that motorized access via trail, road, or oversnow adversely impact elk habitat. Motorized trails increase elk vulnerability and reduce habitat effectiveness.

The Forest Plan includes a "Data Requirement": "Field Verification and Mapping of Elk Winter and Summer Range Habitat" to be accomplished by 1989. It also includes "Research Needs" for wildlife including elk. The FS has not properly prioritized most of this forest plan direction.

The Forest Plan reads:

> 5. Wildlife and Fish
> a. Provide the proper mix of hiding and thermal cover, forage, and protection from harassment during critical periods on big-game summer range (primarily elk), in accordance with criteria contained in the "Guidelines for Evaluating and Managing Summer Elk Habitat in Northern Idaho."
>
> b. Rehabilitate key big-game winter range to meet elk population goals. (Also see Management Areas C3 and C4).
>
> Big-Game Summer Range/Timber - In proposed El and E3 Management Areas, the minimum standard is to provide 25 percent elk habitat potential. New openings (regeneration cuts) can be planned adjacent to former openings as long as the former opening is certified as stocked and the area meets a minimum of 25 percent elk habitat potential after implementation of the proposed activity.
>
> For example, in the El Management Area in Chapter III, the minimum standard for summer elk habitat is to maintain 25 percent of potential habitat capability. In areas where current potential is less than 25 percent, the plan provides direction to increase potential to at least minimum standards as new activities are planned. It recognizes in Chapter IV, Section B, that not all areas will meet minimum standards due to past management practices. However, as we make new entries in those areas, activities should be designed and access managed to bring the potential back to a minimum of 25 percent.
>
> It is also recognized that there are areas within El that have quality elk habitat currently higher than 25 percent. In these cases, Rangers are encouraged to maintain this quality through judicious planning and road closures.
>
> The same basic philosophy will be applied to water quality standards, visuals, T & E habitat, old growth, and other resource areas where the Plan specifies minimum acceptable standards.

For Management Area E1 the Forest Plan requires:

> Manage for a minimum of 25 percent maximum elk potential habitat effectiveness. During Plan implementation and further analysis, determine whether remaining areas of El have potential for providing elk habitat. When analysis shows elk potential is limited by factors other than National Forest management, determinations may be made not to manage for elk.

When habitat conditions warrant, managers are urged to exceed the 25 percent habitat standard. See Forestwide General Standards, in Chapter II.

Design and develop road systems in accordance with area transportation plan procedures.

Forest Plan forestwide standards require:

Manage tree openings created by even-age timber harvest as follows:
(1) Size of openings - Openings created will normally be 40 acres or less, see Regional Guide for exceptions:
(2) Dispersal - The objective is to disperse openings so that adjacent stands will represent at least three size classes, see Regional Guide;
(3) Duration of openings - consider an opening no longer an opening when the density and height of the vegetation and watershed conditions meet the resource management objectives of the area.

The ID Team must assure that unit design optimizes wildlife objectives, both short- and long-term, within the overall objectives of the management area. Other resource requirements and objectives such as visual, watershed, silvicultural, etc., also must be met as applicable. The dispersal of timber size class objectives in the Regional Guide must be met.

Design timber sales to consider cost-effectiveness while maintaining the long-term sustained yield and protecting the soil and water Resources.

Guide vegetation management by the Vegetation Management Practices and Habitat Type Guidelines (Appendix A), and the Northern Regional Guide.

Eliminate the watershed restoration backlog by 2000.

Canada lynx, wolverine, fisher

The EIS must analyze the direct, indirect, and cumulative effects of the state of Idaho's recently enacted trapping laws on Canada lynx, wolverine, and fisher.

Conclusion

The FS's NPCNF draft revised forest plan writings include plenty of discussion implying the dysfunction of the current Forest Plan, so we urge you to complete the revision process. In the meantime, the FS must not implement actions such as those proposed in the Longleaf PA. We incorporate, within these comments, all of our comments submitted to the FS during the forest plan revision process, including our cited scientific references and other attachments. Our comments raise in great detail the many resource concerns in common with those that arise when considering actions such as the Longleaf proposal. If you need a copy of any of the cited scientific references or other attachments, feel free to ask me.

Please keep each of our organizations on the list to receive all communications concerning the Longleaf timber sale proposal.

Sincerely submitted,

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