July 18, 2023

Submitted electronically via www.regulations.gov and in person in Washington, D.C.

Director, Policy Office
Forest Service, U.S. Department of Agriculture
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Dear Forest Service Director:

Friends of Animals1 submits this comment in response to the United States Department of Agriculture Forest Service’s (Forest Service) Advanced Notice of Proposed Rulemaking (ANPRM) soliciting comments regarding its intention of adopting rules to address the relationship between the nation’s forests and climate change. It is well-established there exists a circular relationship, in which climate change adversely affects the health of the nation’s forests, and the drastic reduction in mature and old-growth forests, caused by a variety of sources, eliminates a source of carbon capturing and storage vital to combat climate change.

Friends of Animals is encouraged by the Forest Service’s acknowledgment of the important role our nation’s forests play in the battle against climate change and strongly encourages adoption of rules that promote the protection and preservation of our forests. Friends of Animals supports the Forest Services’ mission to promote ecological integrity and climate resilience when exploring future management of the nation’s vast and pristine forest lands and strongly encourages the Forest Service to manage forests in a way that does not include harvesting healthy forests, particularly stands of ancient and old-growth

1 Friends of Animals is a non-profit international advocacy organization incorporated in the state of New York since 1957. Friends of Animals has nearly 200,000 members worldwide. Friends of Animals, and its members, seek to free animals from cruelty and exploitation around the world, and to promote a respectful view of non-human, free-living and domestic animals and wildlife throughout the world, promoting a healthy global environment.
forests that are so critical to capturing and storing carbon, promoting healthy ecosystems, and supporting forests that are resilient to wildfires.

A. The Forest Service rules need to advance and protect forests in their natural state.

As noted in the ANPRM, the Forest Service’s policy toward forest management has evolved over the past century. Initially, in 1897, the protection and improvement of the nation’s forests was done with the purpose of “furnishing a continual supply of timber.” The nation’s forestry history shows an evolving process that ebbs and flows between increasing timber production, such as during the WWII period, to periods of greater awareness of the importance of forests in their natural and unharvested state. As forestry policy has evolved, there has been a greater emphasis on viewing forests as equally balanced with outdoor recreation, wildlife, fish, and watersheds. Yet, there has also remained an emphasis on managing forests through timber harvesting, rather than understanding and promoting the many benefits of unharvested forests and their vital role in the ecosystem. The Forest Service should consider rulemaking that emphasizes the valuable role of forests when left in their natural state, in which old-growth and mature forests are protected and younger trees are allowed to mature.

On April 22, 2022, President Joe Biden issued Executive Order 14072 titled “Executive Order on Strengthening the Nation’s Forests, Communities, and Local Economies.” At the core of the Executive Order is protecting and strengthening America’s forests, including the increasingly endangered and threatened mature and old-growth forests. As the Executive Order states, “[f]orests provide clean air and water, sustain the plant and animal life fundamental to combating the global climate and biodiversity crises, and hold special importance to Tribal Nations.” The Executive Order continues “[g]lobally, forests represent some of the most biodiverse parts of our planet and plan an irreplaceable role in reaching net-zero greenhouse gas emissions.” Approximately 30 percent of the annual carbon dioxide emissions from human activities are absorbed by the terrestrial carbon sinks provided by forests. And in the United States, “forests absorb more than 10 percent of the annual . . . economy-wide greenhouse gas emissions.” President Biden’s 2022 Earth Day Executive Order directed the Forest Service to “inventory old-growth and mature forests, accelerate reforestation, create and sustain jobs in the sustainable forest product sector, and develop policies to institutionalize these actions.”

4 Executive Order No. 14072, FR 87, No. 81, 24851 (2022).
5 Executive Order No. 14072, FR 87, No. 81, 24851 (2022).
6 Executive Order No. 14072, FR 87, No. 81, 24851 (2022).
7 Executive Order No. 14072, FR 87, No. 81, 24851 (2022).
In the ANPRM, the Forest Service indicates that it is considering rulemaking in order to implement President Biden’s Executive Order and the Secretary’s Memo dated June 23, 2022. The Secretary’s Memo stated that the "Forest Inventory and Analysis (FIA) data indicates that there are 134 million acres of total forest area on land managed by the agency within the contiguous U.S., of which 56 million acres are older than 100 years and approximately 11 million acres are estimated to be 200 years or older." In the Secretary’s Memo, it was proposed that by April 22, 2023 the Service would “develop strategic guidance and an implementation plan to: (a) Immediately increase climate-informed afforestation, agroforestry, and reforestation (planting and natural regeneration) including critical consideration given to climate-informed reforestation in areas such as fire scars that can help avoid carbon loss from forest soils.” While the Secretary’s Memo advocated for afforestation and replanting of trees in adversely affected reason, the preferred method of management included “mechanical thinning; proactive fire use including prescribed fire and cultural burning; management approaches that consider composition, competition and structure in forest stands; promoting the growth of tree seedlings; adopting and continuing soil-friendly practices; or utilizing climate-forward reforestation techniques with the right trees in the right places and at appropriate scales.”

Friends of Animals supports afforestation, replanting, and rehabilitation of the nation’s forests. However, thinning of forests is not the right way in which to “manage’ forests and combat climate change.

In the ANPRM, the Forest Service indicated it had completed the inventory of mature and old growth forests mandated by EO 14072, which showed that “the Forest Service manages an extensive, ecologically diverse mature and old-growth forest estate.” Through the inventory, the Biden administration identified “more than 175,000 square miles of old growth and mature forests on U.S. government land,” taking into account that land managed by the Forest Service and the Bureau of Land Management and excluding old growth forests in Alaska. The Forest Service acknowledges that “older forests often exhibit structures and functions that contribute to ecosystem resilience to climate change.”

The foreseeable and well-documented impacts of rulemaking must take into account the rich and diverse benefits of old-growth and mature forests and the impacts of removing

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9 Secretary’s Memorandum 1077-004: Climate Resilience and Carbon Stewardship of America’s National Forests and Grasslands (issued June 23, 2022); available at: https://www.usda.gov/directives/sm-1077-004.
10 Id.
11 Id. at p. 3.
such forest including impacts to: 1) carbon capture and storage; 2) biodiversity and healthy forest ecosystems; and 3) old-growth and mature forests that are more resistant to wildfires, more resilient to drought conditions, and absorb and store more carbon than younger trees.

B. Mature and old-growth forests are essential to the carbon capture and storage needed to battle climate change.

In the ANPRM, the Forest Service notes that it follows a 2012 Planning Rule, which explicitly recognized that climate change is a significant challenge of immediate concern for the future. The future has now become the present, and climate change is more than just a significant challenge to be considered, but rather an unavoidable reality that must be addressed with immediacy. The Forest Service’s analysis in determining how rules will address forests and climate change must address several issues related to logging, particularly in areas with a wealth of mature and old-growth forests. The forests are the lungs of the environment and play a critical and irreplaceable role in ecological health, biodiversity, and carbon storage to combat climate change. Rules that authorize logging of forest land will result in the removal of countless mature and old-growth trees, damaging forests and removing a critical source of carbon capture and storage which cannot be replaced without decades and even centuries of growth.

“America’s forests—from mature and old-growth stands to working forests—already capture more than 10 percent of our nation’s carbon emissions each year, and they have the potential to do more.” Even mature trees that are damaged by fire continue to contribute more to battling the climate crisis than trees that have been logged. “When mature trees are affected by fire, they often survive with their carbon stores intact – protected by adaptations such thick bark and high crowns – and continue to grow.” In fact, carbon emissions from logging can be up to eight times greater than carbon emissions resulting from wildfires, as even trees that are killed by wildfire will slowly emit carbon through decomposition, as opposed to the immediate release that takes place from logging. As a result, “total national carbon emissions from logging exceed those from fire.”

“Logging in U.S. forests emits 723 million tons of uncounted CO₂ into our atmosphere each year – more than 10 times the amount emitted by wildfires and tree mortality from insects combined.” Decreased density logging by thinning under fire management programs...
emits an amount of CO\textsubscript{2} that is three times the amount emitted by wildfire.\textsuperscript{20} Further, carbon emitted through logging is largely emitted immediately as the by-products of logging are used for energy production through biomass or burning of mill residues, expediting the process by which carbon is released.\textsuperscript{21} The Forest Service should conduct rulemaking that is in line with climate scientists and limit carbon emissions by eliminating logging of any forests, particularly mature and old-growth forests, and emphasize that the best path to combating climate change is to protect healthy forests in their natural state.

In the past, the Forest Service has followed methods of forest management that emphasized logging forests to protect against various threats, including wildfires and pests. Arguments have been made that the carbon storage benefits provided by trees continue after felling, as wood and paper products produced from the logged trees will retain and store carbon in their second life as a manufactured product.\textsuperscript{22} However, this is a short-sighted approach that fails to acknowledge the critical importance of forests in their natural state, capturing and absorbing carbon, which occurs through the photosynthesis process in living trees. With products manufactured from wood-based products from harvested trees, not only does the process of capture end once the tree is cut down, but the logging process itself increases the carbon emitted into the environment. Logging provides no benefit to the battle against climate change, and the best weapon is healthy forests in their natural state.

Studies have also shown that older forests, specifically those with trees over 150 years old, are more resilient to the effects of climate change.\textsuperscript{23} Older forests tend to be “more structurally complex, with trees growing at multiple heights and larger canopy gaps,” allowing for more space to grow and more availability to light for a variety of species. The forests provide a perfectly symbiotic relationship with the environment, in which living trees are not only resilient to climate change, but also play a vital role in reducing the carbon that contributes to climate change. Yet another reason that logging of any forests, including that of mature and old-growth forests, should not be considered a viable forest management method or weapon against climate change.

In adopting rules, the Forest Service must consider the levels of carbon captured, released, and stored as a comprehensive picture that properly considers the benefits of protecting trees from logging, including mature and old-growth stands, and the importance

\textsuperscript{20} Id.
\textsuperscript{21} Id.
of a severe restrictions on logging, or even a moratorium, which is based upon and supported by the best available scientific information.

C. Forests are essential for biodiversity and a healthy ecosystem.

Logging of mature and old-growth forests not only removes trees that are vital to the capture and storage of carbon, restricting the forests’ impact in battling climate change, but also permanently alters the biodiversity and ecosystem of the logged area. Logging removes an invaluable member of the forest ecosystem and adversely affects the plant, animal, and bird species in the particular forest region that rely on the health of the critical habitat. Regardless of the forest region, there will inevitably be endangered or threatened species that will suffer by the removal of their forest habitat.

For instance, in the Green Mountain National Forest in Vermont, logging operations endanger bat species that rely on the forests for survival.24 In Washington, Oregon, and Northern California there are various species of owls that will suffer from deforestation. Other species, including the jaguar, ocelot, key deer, grizzly bear, red wolf, and the California condor, are just a few of the many species of birds and animals that face and uncertain future with deforestation.25 On some federal lands, the majority of mature and old-growth forest are pinyon and juniper woodlands, which provide habitat for the ferruginous hawk, juniper titmouse, mountain bluebird, American kestrel, black throated gray warbler, dusky flycatcher, fringed myotis, pallid bat, white-tailed antelope squirrels, Apache pocket mice, desert woodrats, kit foxes, ringtails, white-backed hog-nosed skunks, northern sagebrush lizard and dozens more. Additionally, pinyon and juniper woodlands are important habitats for mule deer, elk, pronghorn, and white-tailed deer. Removing forest land will make the loss of critical habitat and species an even more immediate reality.

Removing mature and old-growth forests through logging operations also creates indirect effects that diminish biodiversity and habitat. Forests capture water and moisture, filtering water as it travels down to the soil. Deforestation reduces the water regulating effect provided by trees, leaving exposed and bare soils that become vulnerable to erosion and runoff, removing vital nutrients for other plant-life, and introducing sediments and pollutants into the nearby water sources. Deforested regions also lose the beneficial effects trees have on the air quality. Forests can intercept particulate air pollution and absorb harmful gases such as nitrogen dioxide and ozone. Additionally, logging operations require the building or expanding of roads to transport people, equipment, and logged trees. These roads and other logging facilities, such as buildings, disrupt wildlife movement, create

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sound pollution that can cause stress and limit communication between animals, and disrupt animals’ abilities to survive by removing cover and introducing humans to the secluded areas animals enjoy and need. An example is the woodland caribou, found in the North American west in the U.S. and Canada. Due to increased logging, the last known member of the species to habitually cross into the U.S. from Canada was removed by scientists for conservation purposes in 2019.

There are no benefits to biodiversity and the health of the ecosystem through continued deforestation. The Forest Service must consider and analyze in the rulemaking the effects logging operations will have on the environment and species throughout the nation’s forested regions, and adopt rules that eliminate further destruction.

D. Old-growth and mature forests are more resilient to wildfires.

For many years, the policy of the Forest Service has been to manage our nation’s forests through logging, championing the purported benefits to thinning forests in response to high density or pest infestation, while reaping the financial benefits from the sale of the logged trees. The policy was based on the premise that forest management through logging would thin forest density and prevent high-intensity fires, allowing for the growth of younger and smaller trees believed to burn at a lower intensity than mature and old-growth trees. In areas such as the Nelder giant sequoia grove in Yosemite National Park, the Forest Service is right now proposing to move forward with plans for logging operations to remove younger sequoias to avoid high intensity fires, under the misguided belief that removing the source for lower intensity fires will prevent high intensity fires that could destroy older trees. Mature and old-growth forests are more tolerable to fires than the Forest Service attributes, and actually benefit from periodic mixed intensity fires. For instance, in pockets of sequoias, fire will melt resin in sequoia cones and release tens of thousands of seeds. With sunlight exposure, young sequoias can thrive to become mature trees. Logging the young trees puts a wrench in a natural cycle of mixed-intensity fire that promotes healthy forests as a whole.

Rulemaking should not only include protections for mature and old-growth trees with older forests, but protections against logging of younger trees, taking a more comprehensive view of the forest as a whole. Allowing younger trees to grow into mature trees will continue the positive cycle mature and old-growth forests provide and result in

27 Id.
29 Id.
forests that are more resilient to fire and better contributors to the war on climate change. As a forest matures, allowing larger trees to capture and store more carbon, the understory thrives as shady undergrowth that prevents erosion and provides moisture and nutrients, nutrients to the soil through dead longs and other decomposing plant life that do not easily ignite.30

Friends of Animals encourages the Forest Service to adopt rules that emphasize protecting and preserving forests through methods that do not include logging, prescribed burns, or other methods of forest management in which healthy forests are thinned or decreased in density for the purported health of the forest and ecosystem.

E. CONCLUSION

Friends of Animals thanks the Forest Service for the opportunity to comment on its proposed rulemaking addressing the relationship between the nation’s forests and climate change. Forests serve as both as a carbon sink, capturing and containing carbon, and the proverbial canary in the coal mine, telegraphing through its distressed condition the dramatic and catastrophic effects of climate change. The solution is not to adopt rules that promote forest management through logging, but rather establish policy that understands that healthy forests full of old-growth and mature forest stands are the best tool in combating climate change. The Federal Government is aware of the importance of the nation’s forests and has reversed course in the past when logging was contrary to the nation’s interests. Examples include: the reversal of a Trump-era rule to open logging in the Tongass national Forest in Alaska, eliminating logging on approximately 9 million acres of the world’s largest intact temperate rainforest; and withdrawing a plan to log 800 to 1,000 acres of mature forest in the Willamette National Forest because the plan was “incongruent with recent directives and climate-related plans concerning conservation of mature and old-growth forests and carbon stewardship.” A similar approach must be taken again.

Friends of Animals urges the Forest Service to evolve away from its past procedures and focus on protecting the mature and old-growth forests that are so critical in carbon capture, absorption, and storage, promoting a healthy and diverse ecosystem, and providing a defense against climate change-based drought and fires. Thank you for the opportunity to comment, and please contact me if you have any questions or if I can provide additional information.

Sincerely,

Rob Huss, Senior Attorney

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