

Defenders of Wildlife  
Alaska Wilderness League • Earthjustice • Oregon Wild • Sierra Forest Legacy  
Southern Environmental Law Center • Western Environmental Law Center

April 29, 2021

Seth Meyer, Chief Economist  
Office of the Chief Economist  
U.S. Department of Agriculture

RE: USDA-2021-0003

Dear Chief Economist Meyer:

On behalf of the undersigned organizations, thank you for requesting public comment on Executive Order (EO) 14008, Tackling the Climate Crisis at Home and Abroad. In issuing the EO a week after taking office, President Biden recognized the profound climate emergency and called on the Executive Branch to confront the crisis by taking a series of immediate actions. Section 216(b) of the EO directed USDA to submit a report within 90 days to the National Climate Task Force that makes recommendations for an agricultural and forestry climate strategy, informed by stakeholder input.

The request for public comment specifically asked for feedback across several topics, including climate-smart agriculture and forestry; biofuels, wood and other bioproducts, and renewable energy; addressing catastrophic wildfire; and environmental justice and disadvantaged communities (86 Fed. Reg. 14403, March 16, 2021). These comments are focused on the policies and programs of the USDA Forest Service and address questions under headings #1, #3 and #4, with an emphasis on questions under heading #3: "Addressing Catastrophic Wildfire Questions," as these are most relevant to the Forest Service. Because the request for comment alludes to managing Federal lands for carbon, and generally asks about the development of climate-smart forestry and agriculture policies throughout USDA, we offer recommendations on how to shape National Forest System policies for wildfire and carbon management. In other words, we suggest a climate-smart forest policy for the Forest Service that takes advantages of the unique opportunities and meets the special challenges facing federal public lands.

We welcome a follow up meeting with you or appropriate staff within the Forest Service to discuss our comments and recommendations at your earliest convenience.

Sincerely,



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## Introduction

The Forest Service has stewardship responsibilities for 193 million acres of public forests, grasslands and watersheds – nearly 10% of all the lands in the nation. National Forest System (NFS) lands support watersheds that provide about 20% of the nation’s water supply, a huge diversity of ecosystems, 480 plants and animals protected under the Endangered Species Act (ESA) and over 3,000 other at-risk species (See Figure 1). The Forest Service will play a pivotal role in mitigating and adapting to the effects of climate change and must fulfill its responsibility to help stem the extinction and biodiversity crises by managing NFS lands for ecological integrity to contribute to the recovery of threatened and endangered species and maintain viable populations of other species at risk, while providing ecosystem services, including long-term carbon storage and climate regulation (36 C.F.R. §§ 219.8, 219.9, 219.10 and 219.19). Climate-smart forest policies must be integrated with policy development to achieve conserving 30% of the nation’s land and waters by 2030, as directed in EO 14008, Section 216(a).

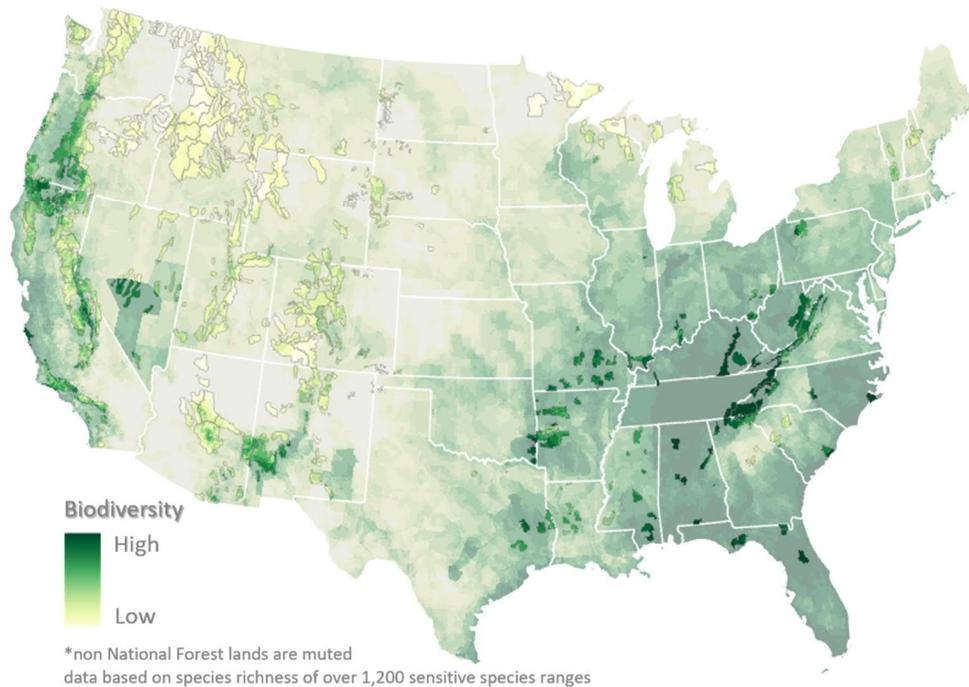


Figure 1: At-risk biodiversity values on National Forest System lands

With the need to tackle the climate and biodiversity crises, the Forest Service’s enduring statutorily mandated challenge to provide for sustainable multiple uses, including wildlife conservation, has never been starker. The number of federally protected species that occur on NFS lands continues to rise. Climate change is significantly stressing and degrading forest ecosystems around the country. According to the National Climate Assessment, “Climate change is increasing the vulnerability of many forests to

ecosystem changes and tree mortality through fire, insect infestations, drought, and disease outbreaks.”<sup>1</sup> Past management and other stressors, particularly the historical liquidation and present deficit of old and large fire-resistant trees, have weakened the resiliency and reduced the integrity of most U.S. forests. Unsustainable logging coupled with fire suppression and exclusion policies have further degraded conditions and reduced the adaptive capacity of U.S. forests. At the same time, oil and gas extraction contributes directly to greenhouse gas emissions (GHGs). Some forest management and livestock grazing practices continue to exacerbate climate change impacts.

Despite these challenges, the Forest Service must help the United States do its part to limit global warming to 1.5 degrees Celsius over pre-industrial levels. Forest Service policies should support the goal of doubling domestic carbon sequestration by 2050 by maintaining and restoring the ecological integrity of forests, grasslands and other ecosystems.

National forests store 30% of U.S. forest carbon while representing roughly 20% of U.S. forestlands (see Figure 2). The federal government manages about 240 million acres of forest land, nearly a third of all forests in the country, and the bulk of those acres are entrusted to the Forest Service’s care. Forests, particularly older forests, play an outsized role as carbon storage banks, and a large majority of the nation’s remaining forests exhibiting old forest conditions occur primarily on Forest Service lands. For example, the Tongass National Forest in Alaska, which contains ~5 million acres of old growth forests, stores 44% of all carbon stored by U.S. national forests.<sup>2</sup> Protecting the carbon-rich forests of the Tongass and across the country offers a first step toward meeting the 2050 goal, but to succeed we will need to ensure the development and enhancement of old forest characteristics across the NFS.

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<sup>1</sup> Joyce et al. 2009. [Managing for Multiple Resources Under Climate Change: National Forests](#). Environmental Management. 44: 1022-1032.

<sup>2</sup> DellaSala. 2021. [Protecting the Tongass Rainforest, Older Forests, and Large Trees Nationwide for the U.S. Nationally Determined Contribution to the Paris Climate Agreement](#). Wild Heritage.

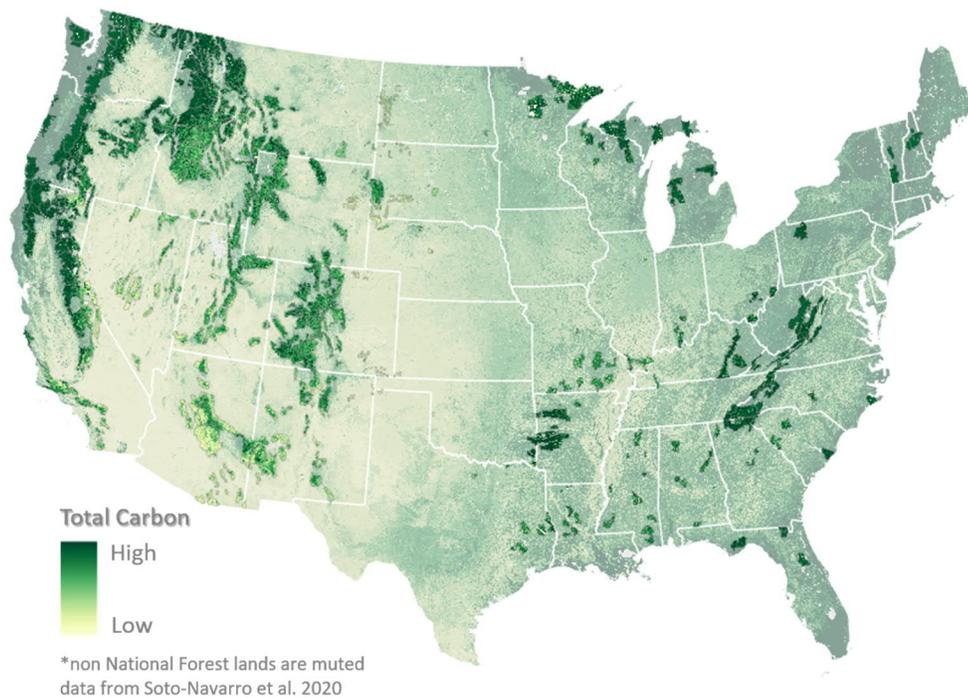


Figure 2: Carbon storage on National Forest System lands. The average location in a national forest or grassland has ~286 tonnes of Carbon per hectare compared to the average location in the contiguous US which has only ~117 tonnes of Carbon per hectare.

Success requires the USDA and Forest Service to leverage all available policy mechanisms and, where necessary, adopt new ones. Management practices must ameliorate threats to communities while building the adaptive capacity of forest and other ecosystems through appropriate restoration actions where needed. Increasing the ability of ecosystems to persist with integrity will also produce optimal ecosystem service benefits, including long-term carbon storage and climate regulation. For many of America’s forests there is an urgent need to reintroduce beneficial fire and to sustain more natural fire regimes.

We understand change can be disruptive, and many NFS user groups have a large stake in the shift toward more climate-conscious practices, yet we have no choice but to adapt. The USDA and Forest Service climate-smart policies must also support a fair and just transition toward agricultural and forestry practices that sustain multiple uses, including wildlife conservation and provision of ecosystem services, in the climate change era. Providing avenues for public input, as this comment notice does, and actively seeking stakeholder engagement in future decision-making will help engender public support for a comprehensive climate-smart strategy on lands administered by the Forest Service.

The national forests and grasslands are a reflection of our democratic ideals, and they should be managed to serve the needs of all Americans. The Forest Service will be central to our response to the economic downturn associated with COVID-19 and to the urgent fight against systemic racism and environmental injustices. A climate-smart policy must be built with these values in mind. In addition, thousands of natural resource-based jobs could be stimulated in the restoration, recreation and green-infrastructure sectors by investing in Forest Service climate-smart programs, including the development of a robust Climate Conservation Corps.

### Policy Foundations of a Climate-smart Agriculture and Forestry Strategy

Questions in the USDA's comment notice, under Section B, asked how the USDA should utilize "programs, funding and financing capacities, and other authorities," work with partners, and explore new strategies to advance climate-smart agriculture and forestry practices (86 Fed. Reg. 14403, March 16, 2021). Though new policies and some policy modifications are likely needed to effectively tackle the climate and biodiversity crises, the current framework of laws, regulations, and policies that governs Forest Service procedures and activities provides a substantial foundation for taking action now, and we address these below.

#### The established legal and regulatory architecture of the Multiple Use Sustained Yield Act and the National Forest Management Act

The Multiple Use Sustained Yield Act (MUSYA) established and the National Forest Management Act (NFMA) clarified the Forest Service's "multiple use mandate," governing sustainable natural resource use on NFS lands. NFMA granted the Forest Service "a responsibility and an opportunity to be a leader in assuring that the Nation maintains a natural resource conservation posture that will meet the requirements of our people in perpetuity" (16 U.S.C. § 1600(6)).

NFMA specifically directs the development of a Renewable Resources Program to make recommendations that "account for the effects of global climate change on forest and rangeland conditions, including potential effects on the geographic ranges of species, and on the forest and rangeland products" (16 U.S.C. § 1602(5)(F)). NFMA also established a statutory requirement to manage national forests for the "diversity of plant and animal communities based on the suitability and capability of the specific land area in order to meet overall multiple-use objectives" (16 U.S.C. § 1604(g)(3)(B)). Climate conservation, adaptation and resiliency policies on national forests should be shaped through the lens of NFMA's "diversity" and other requirements. NFMA and MUSYA also direct the long-term provision of ecosystem services within the context of multiple use. Ecosystem services include regulating services "such as long-term carbon storage (and) climate regulation" (36 C.F.R. § 219.19).

## Recommendations:

- Capitalize on the full existing legal, regulatory, and supporting policy architecture that governs sustainable natural resource use on our national forests and grasslands, including NFMA and its implementing regulations, to develop a climate-smart policy framework.
- Acknowledge that NFMA, as specified by 16 U.S.C. § 1602(5)(F), requires that the Forest Service account for the effects of climate change on NFS ecosystems and species. A climate-smart forest policy should be based on science-based assessments, including those produced by Forest Service Research and Development.
- Be truthful and transparent about adjustments to NFS uses required to sustain natural resources as climate disruption and species extinction rates increase, recalling Congress' finding in NFMA that "management of the Nation's renewable resources is highly complex and the uses, demand for, and supply of the various resources are subject to change over time" (16 U.S.C. § 1600(1)).

### An interpretive rule to ensure management toward ecological integrity

The 2012 Planning Rule codified NFMA's diversity requirement by requiring forest plans to provide for the ecological integrity<sup>3</sup> of NFS ecosystems in order to conserve biodiversity while providing for ecosystem services and social and economic sustainability. Yet, due to the significant backlog of forest and grassland plans requiring revision, many NFS lands will not be managed for integrity for the foreseeable future. To immediately support climate and biodiversity management, the Forest Service should take action to establish ecological integrity as the prevailing landmark toward which plans, projects and other activities should reach. One way the Forest Service can affirm its commitment to the ecological integrity imperative found in the planning regulations is to adopt an interpretive rule that makes explicit Forest Service actions must comply with this existing legal mandate.<sup>4</sup>

## Recommendations:

- Promulgate an interpretive rule "that outlines the Forest Service's obligation to ensure that every action it takes – from project planning to forest planning – advances its legal obligation to ensure ecological integrity on national forests, grasslands, and prairies." <sup>5</sup> An interpretive rule will help immediately provide the ecological conditions on our national forests and grasslands necessary to maintain and restore characteristics of ecological integrity, protect at-risk species'

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<sup>3</sup> The Planning Rule defines "ecological integrity" as "the quality or condition of an ecosystem when its dominant ecological characteristics (for example, composition, structure, function, connectivity, and species composition and diversity) occur within the natural range of variation and can withstand and recover from most perturbations imposed by natural environmental dynamics or human influence" 36 C.F.R. § 219.19.

<sup>4</sup> See 5 U.S.C. § 553(b)(3)(A); Administrative Conference of the United States. 2019. [Administrative Conference Recommendation 2019-1 \(Agency Guidance Through Interpretive Rules\)](#). June 13.

<sup>5</sup> Brown. 2021. [A Blueprint for National Forest Management in the Biden Administration](#). American Bar Association. April 12.

habitats, ensure provision of carbon-based and other ecosystem services, and build in adaptations to climate change.

- The agency should also develop policy that guides the application of the planning rule's ecological integrity requirement to plans and projects and establishes accounting methods and performance metrics to track how much ecological restoration is getting done, and where. Regional direction should be established to account for actions that maintain or restore characteristics of ecological integrity. We also recommend that the Forest Service continue its efforts to measure and evaluate changes in the integrity of NFS ecosystems as a result of agency actions; this should be done in concert with broad-level monitoring as required under the 2012 Planning Rule. Revision to FSM 2020 would support these efforts and could help to operationalize a project-level efforts to maintain or restore ecological integrity.
- Affirm through the interpretive rule on ecological integrity that planning should help achieve the national goal of protecting 30% of the country's lands and waters by 2030.

#### Democratic, deliberative, transparent decision-making guided by the National Forest Management Act and the National Environmental Policy Act

NFMA and NEPA mandate public involvement in agency decision-making. NFMA prescribes the public be invited to "participate in the development, review, and revision of land management plans" (16 U.S.C. § 1604(d)(1)). NEPA (42 U.S.C. § 4321 et seq.) outlines procedures to elicit public involvement in decisions that impact the environment under its implementing regulations (42 C.F.R. § 1506.6). Despite mandates to involve the public in decision-making, these processes can be overly complex and difficult to navigate for members of the general public, especially stakeholder communities who have not been historically been well-represented in these processes.

#### Recommendations:

- Recommit to the deliberative, transparent decision-making processes that are foundational principles of NFMA and the NEPA, their implementing regulations and associated policies; and recommit to innovative, transparent, and inclusive collaboration at every step of NEPA decision-making processes and recognize the value of local expertise and knowledge in land management decisions, including traditional ecological knowledge and indigenous and local knowledge.
- Consider chartering federal advisory committees pursuant to the Federal Advisory Committee Act (FACA) (5 U.S.C. Appendix, Federal Advisory Committee Act; 86 Stat.770, as amended) to assist with the development of climate-smart policies and programs with an emphasis on community engagement. Well-constructed and purposeful advisory committees (such as the 2012 Planning Rule advisory committee) can build stakeholder trust and understanding of Forest Service operations, assess challenges facing the agency and develop solution-oriented approaches to addressing those challenges.

- Establish a Deputy Under Secretary on Public and Community Engagement. The new position should focus on building a more inclusive Forest Service and NFS by developing reforms to address the effects of Forest Service programs on underrepresented and disenfranchised communities, to increase the opportunity for Tribes to participate in the management of NFS lands, and to recommit to deliberate and transparent decision-making processes.
- Conduct a complete analysis of agency decision-making, use of science, and public engagement processes as it relates to planning for and adapting to climate change, and then craft a strategy to address operational, capacity and organizational culture issues.
- Improve how the Forest Service conducts decision-making by making available all information used to set policy as a matter of course, ensuring policy processes are clear and understood by participants, reaching out directly to under-represented stakeholders to assure their perspectives are incorporated into decisions and integrating traditional ecological knowledge.
- Ensure sufficient funding to support public and community engagement efforts. This must include a sufficient allocation for NEPA, including planning and capacity. Supporting diversity, equity, inclusion, and justice reform efforts and developing a collaborative and cooperative management program with tribes may require new budget line items.

#### The National Environmental Policy Act and environmental review

NEPA provides the legal scaffolding for precautionary decision-making that supports mitigating harms to the human environment through science-based analyses and public involvement. Because of the uncertainty and complexity of climate effects on NFS resources, robust NEPA is essential to support climate-smart decisionmaking. In 2020, the Trump administration issued a final rule (85 Fed. Reg. 73620, November 19, 2020) that undermines NEPA's public participation, transparency, and use of science provisions as provided in the Forest Service's regulations (36 C.F.R. § 220 et seq.).

The new rule expands the ability of the Forest Service to undertake categorical exclusions (CEs) to conduct projects including commercial timber sales and roadbuilding of up to 2,800 acres. The change is an affront to NEPA's original intent: that projects and activities with significant environmental impacts undergo higher-level review through environmental assessments or environmental impact statements. The new CEs provide opportunities for abuse and undermine climate-smart forest decisionmaking, including addressing climate impacts at appropriate ecological scales. For example, they enable a forest unit to administer multiple projects in one area under consecutive or "serial" CEs, which could result in massive timber sales occurring with the minimum environmental review and no meaningful assessment of impacts or public involvement.

## Recommendations:

- Shift the Forest Service's perception of NEPA as an impediment to project execution to an awareness that the Act is an opportunity to offer meaningful public engagement and improve the quality of agency decision-making.
- Engage with stakeholders to better utilize programmatic, landscape-scale analysis and decision-making. Landscape assessments should identify priority areas for ecological restoration based on departure from climate-informed reference conditions for ecological integrity; assessments should also identify key characteristics of integrity that should be maintained and preserved on the landscape.
- Repeal the revised Forest Service NEPA regulations and reinstate the regulations in place prior to finalization. In addition, suspend the use of the categorical exclusion found at 36 C.F.R. Sec. 220.6(e)(6) pending a review of its efficacy as supported by monitoring results.

## Existing climate policy

The Forest Service has should build on prior efforts to develop climate-smart science and policy. In 2008 the Forest Service declared climate change as one of the most urgent tasks facing the Forest Service and developed a Strategic Framework for Responding to Climate Change, which identified climate science, policy, adaptation and partnerships as key climate issues that must be addressed by the agency. The follow-up 2010 National Roadmap for Responding to Climate Change and Climate Change Scorecard directed the agency to assess climate risks and vulnerabilities, and to manage for ecosystem resilience through the development of adaptation strategies. The Forest Service has also produced a number of general technical reports on the subject, including a comprehensive science synthesis<sup>6</sup> and Responding to Climate Change in National Forests: A Guidebook for Developing Adaptation Options.<sup>7</sup> However, climate vulnerability assessments and adaptation strategies have not been systematically applied to agency decisionmaking.

## Recommendations:

- Elevate and strengthen the capacity and leadership effectiveness of the Climate Change Advisor's Office, including for coordination with the USDA Climate Change Program Office. The Office should be empowered to address climate change mitigation, adaptation and planning.
- Build on prior policy work and ensure that existing resources and tools are effectively applied to agency decisionmaking.

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<sup>6</sup> See Vose et al. (eds.). 2012. [Effects of Climatic Variability and Change on Forest Ecosystems: A Comprehensive Science Synthesis for the U.S. forest sector](#). USDA, Forest Service. PNW-GTR-870. December.

<sup>7</sup> Peterson et al. 2011. [Responding to Climate Change in National Forests: A Guidebook for Developing Adaptation Options](#). USDA, Forest Service. PNW-GTR-885.

- Develop a national climate-smart strategic plan that addresses biodiversity adaptation and mitigation issues, including carbon storage. Section 211 of EO 14008 directs agencies to develop action plans that bolster adaptation and increase resilience to the impacts of climate change for agency operations.

### The 2012 Planning Rule

Climate-smart policy should not segregate or diminish carbon, resiliency, adaptation and viability objectives – it should integrate these elements. The concept of ecological integrity, as defined and codified in the 2012 Planning Rule provides the necessary unifying framework for further policy development, especially when one considers that carbon storage is a functional ecological characteristic of an ecosystem. Another intent of the rule is to allow “the Forest Service to adapt to changing conditions, including climate change...” (36 C.F.R. § 219.5(a)). Land management plans must also uphold rule requirements to contribute to threatened and endangered species recovery and maintain the viability of species of conservation concern by managing lands and waters to achieve ecological integrity (36 C.F.R. § 219.9). These were intentions of the rule, encapsulated in this statement from the preamble:

The Secretary [of Agriculture] emphasized that the Forest Service planning process provides an important means for integrating forest restoration, climate resilience, watershed protection, wildlife conservation, opportunities to contribute to vibrant local economies, and the collaboration necessary to manage our national forests. 77 Fed. Reg. 21163-21164, April 9, 2012.

The 2012 Planning Rule requires plans to provide for ecosystem services – including carbon storage – and multiple uses while meeting the diversity requirements of §§ 219.8 and 219.9. To support the provision of carbon storage, the rule requires an assessment of baseline carbon stocks as part of the planning assessment, and over the past several years the agency has developed baseline data for carbon stocks on NFS lands as part of plan revision processes. One flaw in the 2012 Planning Rule, however, is that it does not direct the Forest Service to develop plan components to manage carbon stocks within natural ranges for ecosystems within the planning area, and this should be remedied with additional policy direction.

While the planning framework will be essential to sustainably manage for ecological integrity and ecosystem services, plan revisions alone will not be enough. A full round of plan revisions under the 2012 rule will simply take too long. However, the planning rule’s central insight—that maintaining and restoring ecological integrity is foundational to all of the multiple uses—must inform shorter-term policy decisions, such as project development and execution.

### Recommendations:

- Bolster planning processes by developing regional planning centers that can assist with planning by, for example, helping with condition assessments, including climate projections, vulnerability

assessments, and carbon inventories, that are informed by the best available scientific information.

- Reflect the need in Forest Service budgets to support planning that proceeds efficiently and results in climate-smart plans. We have recommended a \$24.5M FY22 investment in NFS Land Management Planning, Assessment and Monitoring to support robust planning for climate change.

### Protecting Older Forests is Essential to a Climate-smart Strategy

Although areas within some NFS ecosystems may exceed reference conditions for certain structural and compositional elements (e.g., ladder fuels) because of historical fire suppression and thus lack integrity and resiliency, there are carbon storage deficits across NFS ecosystems, largely because many NFS forested ecosystems experience significant deficits in older forests and late-seral characteristics compared to reference conditions. Due to past liquidation of older forests either by clearcutting or high-grading, many NFS ecosystems lack integrity due to an absence of large old trees, and store lower amounts of carbon than they did historically. It is likely that many NFS ecosystems will require restoration and proforestation<sup>8</sup> efforts within ecosystems to achieve integrity, in terms of ecosystem structure and function. A climate-smart forest policy must address these deficits and departures from reference conditions.

#### Protecting forests for carbon storage

Older forests<sup>9</sup> store large amounts of carbon and forested areas with high ecological integrity (i.e., exhibiting reference characteristics, including natural ranges of ecological succession), produce optimal carbon storage services. For example, the Tongass National Forest holds 44% of all carbon stored in U.S. national forests, and the temperate rainforests in Washington and Oregon store more carbon per acre than tropical rainforests. Old forest conditions and characteristics across the NFS should be protected for their carbon and biodiversity values, consistent with the principle of ecological integrity. It is long past time for the Forest Service to develop a comprehensive policy for the maintenance and restoration of old forest conditions and characteristics across the NFS. In 2001 Chief Mike Dombeck suggested a policy to inventory old forests on NFS lands and to amend forest plans to protect those defining characteristics; however, this never came to full fruition. That was over 20 years ago and in that period the climate and biodiversity crises have only accentuated the need for a coherent NFS policy to conserve and restore old forest characteristics wherever they are found.

Claims that it is too challenging to define and inventory old forest conditions and characteristics fall flat given advancements in remote sensing and ecological assessment, as do arguments that management

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<sup>8</sup> Moomaw et al. 2019. [Intact Forests in the United States: Proforestation Mitigates Climate Change and Serves the Greatest Good](#). *Frontiers in Forests and Global Change*. 2: 27.

<sup>9</sup> We use the general term “old forests” to conceptually cover forested areas that contain mature and old growth trees and other late-successional conditions and characteristics, recognizing that definitions of such characteristics are unique to particular ecosystems.

for resilience in fire adapted ecosystems prohibits conservation of old forest characteristics. The agency's desire to retain the discretion to log areas with old forest characteristics undermines adaptation and mitigation efforts, as does the incentive to remove older trees to fund vegetation management projects coupled with the lack of sufficient budgets to achieve ecological resilience and integrity.

### The Roadless Rule in the Tongass National Forest

With the Tongass being a keystone for the role our national forests can play in climate defense, we urge fast action to reinstate the full protections of the Roadless Rule in the Tongass National Forest. Roadless Rule reimplementation in the Tongass is supported by over 90% of individuals who commented on the subject under the previous administration, and nearly 100 members of Congress that have agreed to cosponsor the Roadless Area Conservation Act. Full reimplementation will ensure protections are in place for the 9.3 million acres of the Tongass National Forest currently at risk after the previous administration ignored tribes and stakeholders to repeal protections for these parts of the Tongass. The Biden Administration and USDA have the opportunity to protect these lands today and must take action immediately to show global leadership in the fight against climate change.

#### Recommendations:

- Pause all decisionmaking related to logging and other activities that may affect old forest conditions and characteristics across the NFS. Such a pause would be consistent with EO 14008 as well as agency obligations to review programs and policies for consistency with the administration's policy objectives and executive orders, including conservation of biodiversity and protection of carbon values.
- During the pause, initiate rulemakings or programmatic plan amendments<sup>10</sup> to identify and conserve areas that contribute to ecological integrity and adaptive capacity on NFS lands – including areas with old forest characteristics – consistent with President Biden's 30x30 goal. The effect of the rules should be to assure national forests' continued national value for: (1) carbon storage; (2) biodiversity protection and species recovery; and (3) climate adaptation, including designation of climate refugia and connecting landscapes. Such rulemaking should also set objective parameters for conducting ecological restoration in a manner that sustains ecological integrity and conservation values in these areas. These policymaking actions should be based on the best available scientific information in consultation with a Committee of Scientists.
- Capitalize on existing land and water designation authorities to increase, enhance, expand, and connect biodiversity and carbon strongholds. The Forest Service should use these authorities,

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<sup>10</sup> Regional forest plan amendments could also be used, in concert with existing ecological and carbon assessments, to update plans to achieve resiliency, integrity, carbon, connectivity, and climate refugia management provisions at an appropriate ecological scale.

such as recommending wilderness and designating “designated areas”<sup>11</sup>, to swiftly protect categories of lands already recognized in land management plans as having important natural values. This advances multiple goals of the Biden administration as articulated in EO 14008, including 30x30. We also recommend that the Forest Service expand and enhance the Research Natural Area program to support a climate-smart forest strategy, including their use as reference areas for adaptive management.

- Reinstate the full protections of the Roadless Rule in the Tongass National Forest.

### Resilient Infrastructure to Support Climate-smart Agriculture and Forestry

Question A.1 asks about leveraging existing policies and programs in the adoption of practices that, among other things, “ensure resiliency to climate change” (86 Fed. Reg. 14404, March 16, 2021). A Forest Service strategy that effectively manages NFS lands for ecological integrity and climate adaptation requires a resilient infrastructure network. For example, the current system of roads and bridges, built largely without regard to natural hydrological regimes or the integrity of ecosystems and watersheds, needs an overhaul to withstand climate-mediated changes to streamflows. While the Great American Outdoors Act will help alleviate some of the infrastructure maintenance backlog, targeted work is needed to decommission and stormproof roads, fix stream culverts, and construct bridges designed to weather flooding.

### Support a Climate Conservation Corps

Section 215 of EO 14008 directs USDA to craft strategies for creating a Climate Conservation Corps.

- Develop a CCC program to conserve and restore NFS lands and waters, protect biodiversity, bolster community resilience, increase carbon storage, and improve access to recreation. The program should prioritize employment in underrepresented communities.

### A sustainable minimum road system

The Forest Service has yet to fully comply with its own regulation (36 C.F.R. § 212.5(b) to identify a minimum road system (MRS) on NFS lands, and plans and projects must make progress toward the MRS.

Recommendations:

- Launch a review of the status of agency infrastructure and identify and implement actions necessary to ensure climate resiliency, including identification of the minimum NFS road system,

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<sup>11</sup> Under 36 C.F.R. § 219.19 a “designated area” is defined as: “an area or feature identified and managed to maintain its unique special character or purpose. Some categories of designated areas may be designated only by statute and some categories may be established administratively in the land management planning process or by other administrative processes of the Federal executive branch. Examples of statutorily designated areas are national heritage areas, national recreational areas, national scenic trails, wild and scenic rivers, wilderness areas, and wilderness study areas. Examples of administratively designated areas are experimental forests, research natural areas, scenic byways, botanical areas, and significant caves.”

determined with climate considerations, and priorities for restoration and sustainable outdoor recreation.

- Develop climate-smart infrastructure strategies that include identifying the minimum road system consistent with existing regulatory direction in 36 C.F.R. § 212.5(b).

### Legacy Roads and Trails Program

From 2008-2018 the Legacy Roads and Trails (LRT) Remediation Program invested nearly \$0.5 billion across the country to support vital infrastructure projects that created high-paying jobs in rural communities until the Program was essentially eliminated in 2018, at which time Americans stopped benefiting from LRT projects that improved stream water quality, reconnected waterways for imperiled fish migration, and enhanced road and trail durability to enable greater access to our national forests. For example, projects to restore fish passage declined – with only 145 in 2020 compared to 255 in 2018. Though Congress has not yet reauthorized or funded the LRT Program, support is growing to reinvest. If Congress does fund, and possibly reauthorize the LRT Program, the Forest Service should return to selecting restoration projects for infrastructure at risk of failure under extreme weather events associated with climate warming. With or without dedicated funding for the LRT Program, the Forest Service should prioritize construction and restoration work that builds and fortifies climate-resilient infrastructure.

Recommendation:

- Implement the Legacy Roads and Trails Remediation Program to advance the transition to climate-smart infrastructure if the program is funded and authorized. If not refunded, carry out LRT's function using funds from road maintenance budget line and under current authorities.

### Watershed Condition Framework

There may be no greater critical natural asset than the nation's watersheds and clean water supplies, and the Forest Service plays a vital role in their restoration and protection; national forests provide roughly one-fifth of the drinking water to U.S. communities. The Forest Service's Watershed Condition Framework provides a mechanism to assess watershed conditions and prioritize watersheds for restoration. However, there are problems with the implementation of this tool that the agency needs to assess. For example, recent management plan revisions have not abided by the framework's guidance or identified priority watersheds.

Recommendations:

- Review and adjust, if necessary, the agency's Watershed Condition Framework and Watershed Restoration Action Plans to improve watershed management and restoration and meet the administration's carbon and biodiversity objectives. Then, fully implement these plans. Forest planning and other policymaking efforts (such as those associated with 30x30) should emphasize

the establishment of Conservation Watershed Networks to provide for the measurable long-term protection, connectivity, viability and recovery of native aquatic species.

- Support sufficient funding for the implementation of existing Watershed Restoration Action Plans developed pursuant to the Watershed Condition Framework, consistent with the administration's carbon and biodiversity priorities.

### Climate-smart Forestry Practices and "Catastrophic" Wildfire

Forests and other ecosystems have always been shaped by disturbances such as wildfire, insects and disease. However, the immediate impacts of a changing climate, such as persistent drought and longer dry seasons, will change the magnitude of these threats to forests that lack integrity and adaptive capacity. In combination with other stressors, climate change poses a threat to forest resiliency, integrity and to the viability of biodiversity. Increases in the frequency and severity of wildfire due to prolonged drought and longer fire seasons, coupled with the stress of continued maladaptive management stressors, could result in unprecedented and undesirable changes to forests and the loss of forests to grassland and shrubland, and will likely be the primary driver of change in western U.S. forests.<sup>12</sup> Despite their natural resiliency, forests facing this novel array of stressors may not be able to rebound from such significant and rapid changes, resulting in a variety of losses to ecosystem services, including biodiversity and carbon storage.

This section answers all four questions under Section #3 "Addressing Catastrophic Wildfire." We note that the notice does not define what "catastrophic wildfire" is and employs the term only once. Inferring all wildfires are catastrophic oversimplifies the problem, fails to acknowledge the ecological role of fire in many forest ecosystems and limits the range of issues the USDA should be assessing in this policy arena.

Additionally, USDA must be honest with the American people and not over-promise that, though important, forestry practices alone are going to solve the wildfire problem. The Department would also be providing a public service by communicating the message that the country must adapt to more wildfire. The magnitude of the human-caused climate crisis has created a situation where managing forest conditions may help reduce the risk of uncharacteristic wildfire in some places but not everywhere. The USDA can help by focusing fuels reduction projects where human communities are at the greatest risk.

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<sup>12</sup> McKenzie, D.; Gedalof, Z.E.; Peterson, D.L.; Mote, P. 2004. Climatic change, wildfire, and conservation. *Conservation Biology*. 18: 890–902.

Question 3.A. How should USDA utilize programs, funding and financing capacities, and other authorities to decrease wildfire risk fueled by climate change (and manage Federal lands for carbon<sup>13</sup>)?

In 2020, wildfires affected nearly 9 million U.S. acres, and fires have become increasingly intense and damaging to both human infrastructure (e.g., housing and water supplies) and human health (e.g., through displacement, loss of life, and smoke impacts). Federal agencies spent close to \$3 billion in 2017 and in 2018 to suppress fires across the nation, and these rising costs have compromised the agency's ability to deliver its mission, including conducting fire hazard reduction and forest and watershed restoration. While the "fire funding fix" has alleviated problems, it has not solved underlying issues regarding the agency's capacity to effectively conserve and restore forests.

#### Comprehensive climate-smart policy objectives

While decreasing wildfire risk is an objective of many forest management and restoration efforts – especially as it relates to risk to communities, life and property – it should not be the underlying priority for a climate-smart forest policy. The underlying principle, and question, should be: How should a climate-smart forest policy 1) restore and maintain resilient ecosystems; 2) contribute to fire adapted human communities so that they can withstand wildfires without loss of life and property and 3) ensure a safe and effective response to active wildfires? These are the three key areas of the National Cohesive Wildland Fire Management Strategy and they establish a solid foundation for continued policy development. In addition, a climate-smart forest policy should also manage the diversity of ecosystems found across federal lands to provide for ecosystem services, including long-term carbon storage and climate regulation.

- Rather than characterizing wildfire management as a matter solely of risk reduction, we recommend that a USDA climate-smart policy be based upon the bedrock principles of the Cohesive Strategy and seek to maintain and restore the ecological integrity of fire adapted landscapes; develop fire adapted human communities; and improve effective wildfire response.

#### Reforestation policy and limits to salvage logging

Because forest ecosystems are adapted to wildfire, in many cases forests will naturally regenerate following a characteristic wildfire event, as part of the dynamic process of ecological succession. In some cases, however, reforestation actions may be necessary, especially with a changing climate. Some wildfires burn forests so severely that they kill tree seed sources for natural regeneration across large areas.<sup>14</sup> Science informs us that these types of fires may be becoming more widespread due to climate change.<sup>15</sup> The failure to regrow trees in these scenarios will in many cases have negative impacts for

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<sup>13</sup> Because Question 3.C. alludes to managing Federal lands for carbon, in this section we offer recommendations for NFS policy for wildfire and carbon, i.e., a climate-smart policy framework for NFS planning and management.

<sup>14</sup> North et al. 2018. [Tamm Review: Reforestation for resilience in dry western U.S. forests](#). Forest Ecology and Management. 432: 209-224.

<sup>15</sup> Savage et al. 2013. [Double whammy: high-severity fire and drought in ponderosa pine forests of the Southwest](#). Canadian Journal of Forest Research. 43: 570-583; Hurteau et al. 2014. [Climate change, fire management, and ecological services in](#)

carbon storage, biodiversity conservation and other valuable ecosystem services that high integrity forests provide, like clean water and outdoor recreation. Therefore, human assisted replanting following some wildfires (and other disturbances) may be warranted, if done right. In some cases, however, it may be fruitless to replant forests within areas of ecosystems that are in transition; a climate-smart forestry policy must be able to distinguish these situations and apply the appropriate adaptation strategy.

Unfortunately, current replanting practices are largely outmoded on U.S. public lands because they were developed at a time when the focus was on producing trees for commercial harvest rather than the restoration and resiliency of forest ecosystems in the face of climate change. Outmoded planting practices can have negative implications for biodiversity and carbon storage. Reforestation that fails to mimic natural patterns creates forests that lack resiliency to future wildfires and other disturbances, thus diminishing carbon storage over the long-term.

Replanting often follows salvage logging, which removes the standing dead timber following a wildfire or other disturbance, either for economic reasons, or for the safety of the workers doing the replanting, or both. Salvage logging can completely eradicate valuable habitat for species that depend on post-wildfire ecological conditions.<sup>16</sup>

There is no scientific support for salvage-logging areas to prevent or minimize future fires. Postfire salvage logging can leave behind slash fuel materials such as dry branches that can increase fire risk,<sup>17</sup> remove cone seed stock from forests and inhibit tree regeneration,<sup>18</sup> remove organic material that provides soil nutrients necessary for soil productivity,<sup>19</sup> remove the organic material like fallen logs necessary to generate new forest vegetation that provides important wildlife habitat after high-severity fires,<sup>20</sup> removes snags (standing dead trees) that provide roosting and nesting sites for a host of species including birds and small mammals,<sup>21</sup> diminishes a forest's ability to store and sequester carbon,<sup>22</sup> and prolongs the period that soil erosion occurs after fires<sup>23</sup> due to the loss of trees and other organic

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[southwestern US](#). *Forest Ecology and Management*. 327: 280-289; Stephens et al. 2018. [Drought, tree mortality, and wildfire in forests adapted to frequent fire](#). *BioScience*. 68(2): 77-88; Stevens-Rumann et al. 2018. [Evidence for declining forest resilience to wildfires under climate change](#). *Ecology Letters*. 21(2): 243-252.

<sup>16</sup> Franklin and Johnson. 2021. [Salvage does not aid ecological recovery of forests](#). *Statesman Journal*. April 23.

<sup>17</sup> Thompson et al. 2007. [Reburn severity in managed and unmanaged vegetation in a large wildfire](#). *Proceedings of the National Academy of Sciences*. 104(25): 10743-10748.

<sup>18</sup> Lindenmayer et al. 2004. [Salvage harvesting policies after natural disturbance](#). *Science*. 303: 1303.

<sup>19</sup> Jennings et al. 2012. [Impact of postfire logging on soil bacterial and fungal communities and soil biogeochemistry in a mixed-conifer forest in central Oregon](#). *Plant Soil*. 350: 393-411.

<sup>20</sup> Swanson et al. 2011. [The forgotten stage of forest succession: early successional ecosystems on forest sites](#). *Frontiers in Ecology and the Environment*. 9(2): 117-125; DellaSala et al. 2014. [Complex early seral forests of the Sierra Nevada: what are they and how can they be managed for ecological integrity?](#) *Natural Areas Journal*. 34(3): 310-324.

<sup>21</sup> Kotliar et al. 2002. [Effects of fire and post-fire salvage logging on avian communities in conifer-dominated forests of the western United States](#). *Studies in Avian Biology*. 25: 49-64; Hutto and Gallo. 2006. [The effects of post-fire salvage logging on cavity-nesting birds](#). *The Condor*. 108: 817-831; Rost et al. 2013. [Comparing the effect of salvage logging on birds in the Mediterranean Basin and the Rocky Mountains: Common patterns, different conservation implications](#). *Biological Conservation*. 158: 7-13.

<sup>22</sup> Powers et al. 2013. [Post-fire management regimes affect carbon sequestration and storage in a Sierra Nevada mixed conifer forest](#). *Forest Ecology and Management*. 291: 268-277.

<sup>23</sup> Karr et al. 2004. [The effects of postfire salvage logging on aquatic ecosystems in the American West](#). *BioScience*. 54(11): 1029-1033.

materials that stabilize soils. Hutto et al. (2016) stated, "In fact, the demonstrated negative ecological effects associated with postfire salvage logging are probably the most consistent and dramatic of any wildlife management effects ever documented for any kind of forest management activity."<sup>24</sup>

Recommendations:

- Reform reforestation and replanting policy on U.S. public lands to ensure sound practices that support climate mitigation and adaptation and biodiversity conservation. The occurrence of high severity fire does not mean that a forest must be manually replanted, and areas exhibiting high ecological integrity (e.g., natural habitat characteristics), including complex early seral habitat conditions and characteristics which are indicators of high ecological integrity and must be off limits to harmful salvage logging.
- Adopt policies that protect and encourage the regrowth of large old trees, which are able to resist wildfire while storing vast amounts of carbon.
- Conduct replanting only on those forests where natural regeneration has failed. The best available science should guide replanting practices in a manner that provides measurable benefits to wildlife, watersheds and forest resiliency. Parallel policy efforts must be made to 1) protect ecosystem components and structures that have high ecological and carbon value, such as mature and old growth forest characteristics, and roadless areas that by definition have high ecological integrity; 2) restore degraded forests such as dense homogenous plantations; and 3) restore natural fire regimes within fire adapted forests.

Question 3.B. How can the various USDA agencies work more cohesively across programs to advance climate-smart forestry practices and reduce the risk of wildfire on all lands?

#### Priority on community safety in mixed ownership areas

Improving ecological integrity and achieving desired fire conditions across landscapes requires an all lands approach, and given limited resources and capacity, federal, state, Tribal and other governments must prioritize restoration actions. USDA and the Forest Service should continue to work with states and other stakeholders to identify high priority areas within fire adapted forest landscapes and fire sheds for ecological restoration and community protection actions based on transparent science driven criteria.

Recommendation:

- Develop planning and decisionmaking structures and processes that ensure that the highest priority areas within mixed ownership landscapes are addressed first; this would include areas around communities as well as areas that are most degraded and departed from desired

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<sup>24</sup> Hutto et al. 2016. [Toward a more ecologically informed view of severe forest fires](#). *Ecosphere*. 7(2): e01255.

reference conditions. As a corollary, stakeholders should also identify areas important for ecological integrity for maintenance (e.g., a sustained desirable fire regime) and conservation.

Question 3.C. What additional data, tools and research are needed for USDA to effectively reduce wildfire risk and manage Federal lands for carbon?

#### Biodiversity, carbon and vulnerability assessments for National Forest System lands

Some assessments of ecological integrity and baseline carbon stocks have been conducted for forest planning<sup>25</sup>, and vulnerability assessments exist for many national forest units, but there is an urgent need for uniform ecological assessments across NFS lands to inform policy development, analysis and decisionmaking. For instance, as noted above, there needs to be an assessment of old forest conditions and characteristics across the NFS, within the operating context of ecological integrity (i.e., estimating deficits of old forest conditions and characteristics across appropriate ecological scales).

Recommendations:

- Identify and assess high priority conservation lands that include high biodiversity/integrity and high carbon values, at present, and projected, timeframes through integrated assessments.
- Tap the wealth, in planning assessments, of existing high-quality science information being produced by other agencies, for example USGS, as well as academic and non-governmental institutions.
- Immediately assess levels of carbon that would be stored within NRV, by ecosystem. By comparing NRV for carbon storage with current carbon stocks for those ecosystems, the Forest Service can estimate the potential for additional carbon storage on NFS lands consistent with the restoration and maintenance of ecological integrity. Further, this analysis should inform a national target for carbon storage on NFS lands, which should be allocated to Regions by their ability to contribute to that target, somewhat like the historical allocation of timber targets. Notably, adoption of a national-level target for carbon through a NEPA process that considers alternative strategies for carbon storage (e.g., status quo, maximum carbon storage, and restoration of ecological integrity) would give forest plans and projects something to tier to, so that individual vegetation management projects would no longer be vulnerable for their failure to consider their cumulative effects on carbon stocks. It would also give the Forest Service an analytical basis to set concrete, expectations for the role of federal forests management in meeting the United States' Nationally Determined Contribution under the Paris Agreement.

#### Strategic and integrated approaches to guide restoration

Far too often, Forest Service decisionmaking portrays resiliency and conservation of at-risk species as tradeoffs and in some cases imperiled species conservation is seen as a barrier to restoration. This

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<sup>25</sup> Triepke et al. 2015. [Baseline Carbon Assessment – Carson National Forest](#). May 18.

makes little conceptual sense given that imperiled species are key compositional characteristics of NFS ecosystems and should therefore drive restoration actions, but often occurs when the agency defines resiliency too narrowly (e.g., stand density or canopy closure). Under a climate-smart policy that is geared to biodiversity conservation and the building of adaptive capacity within ecosystems, imperiled species, including those vulnerable to rapid climate changes to ecological conditions, can serve as focal points for restoration planning, management and assessment. In fact, the 2012 Planning Rule provided for the use of focal species to serve this exact purpose (see §§ 219.12 and 219.19). Agency planning and management efforts would benefit from more strategic and better integrated approaches to ecological restoration, including adoption of definitions and parameters for operationalizing restoration and integrated management approaches for proposing actions that achieve desired ecological conditions for ecological integrity and recovery of at-risk species.

The Planning Rule requires forests and grasslands designate focal species during planning to assess whether plans are providing the ecological conditions necessary to contribute to the recovery of threatened and endangered species and maintain the viability of species of conservation concern (36 C.F.R. §§ 219.12(a)(5)(iii) and 219.19). When species selections are based on the best available ecological information, the presence, absence, abundance, and distribution of focal species in an ecosystem over time are indicators of ecological integrity.<sup>26</sup> For example, woodpeckers are indicators for a range of ecosystem conditions in conifer forests, such as snags, and can be useful for assessing post-disturbance conditions such as after restoration treatments or wildfires as well as climate change effects.<sup>27</sup> A woodpecker community or a larger suite of bird species can help assess integrity as the time since disturbance increases.

#### Recommendation:

- Embrace the use of focal species in forest and restoration planning, management and evaluation, including in the amendment processes recommended on page 13. Select and monitor focal species to help assess the integrity of forested ecosystems over time, including assessing the impacts of disturbance such as wildfires, vegetation treatments and climate change. Make focal species selections and develop associated monitoring questions based on the best available scientific information; we recommend consulting U.S. Fish and Wildlife Service's guide, Technical Reference on Using Surrogate Species for Landscape Conservation, for this purpose.<sup>28</sup>
- Develop policies consistent with Section 7(a)(1) of the Endangered Species Act to facilitate climate-smart conservation planning for listed species as part of an effort to integrate resiliency

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<sup>26</sup> Hilty and Merenlender. 2000. [Faunal indicator taxa selection for monitoring ecosystem health](#). Biological Conservation. 92(2). 185-197.

<sup>27</sup> Haggard and Gaines. 2001. [Effects of stand-replacement fire and salvage logging on a cavity-nesting bird community in eastern Cascades, Washington](#); Nappi et al. 2015. [How important is dead wood for woodpeckers foraging in eastern North American boreal forests?](#) Forest Ecology and Management. 346: 10-21; Tarbill et al. 2015. [Drill, baby, drill: the influence of woodpeckers on post-fire vertebrate communities through cavity excavation](#). Journal of Zoology, 296(2): 95-103.

<sup>28</sup> United States Fish and Wildlife Service. 2015. [Technical Reference on Using Surrogate Species for Landscape Conservation](#).

restoration with species recovery efforts. Efforts by the Forest Service ESA Consultation Task Force surrounding recovery planning should be continued.

#### Accurate and accountable means of measuring outcomes

Climate-smart policy must also include setting appropriate ecological outcomes and regular and consistent evaluation of those outcomes. The Forest Service should reaffirm the standard of using the best available scientific information to develop policies and related outcome-based performance measures. It is well established that antiquated output metrics, such as the production of board feet do not indicate success in the challenge to achieve desired wildfire conditions and ecological integrity. The prior administration's emphasis on timber and commodity production as a dominant management objective on many NFS lands interferes with the achievement of resiliency and carbon objectives, including limiting actions such as prescribed and managed wildfire that have clear public benefits.

Recommendations:

- Use performance measures that demonstrate that climate-smart policies are resulting in increased adaptive capacity, resiliency, viability, ecological integrity, and carbon sequestration. The agency should emphasize ecological measures including improvements above baseline for carbon storage and watershed conditions, ecological conditions necessary for fish and wildlife viability, and key indicators of ecological integrity, including gains in old forest characteristics.
- Establish a budget line item and associated performance metric for prescribed fire and provide sufficient funding for the implementation of existing Watershed Restoration Action Plans developed pursuant to the Watershed Condition Framework, consistent with the administration's carbon and biodiversity priorities. In addition, measurable improvements in risk reduction to communities, such as acres mitigated in communities with fire-ready vegetation, or the number of fire-ready homes and communities, should be emphasized.

#### The applied research power of Forest Service R&D

The Forest Service plays an important role in developing the science and tools for carbon and biodiversity management in public and private forests. The applied research power of Forest Service R&D should be harnessed to help assess and account for biodiversity, carbon and other ecosystem values across the NFS and to develop, in partnership with NFS and stakeholders, best management practices. Those same resources and tools should be made available to non-federal entities via the Forest Service's State and Private forestry and other programs.

Recommendation:

- Support full funding for the Joint Fire Sciences Program, the only program supporting fire research in line with agency needs and priorities. The administration should also invest at least

\$84M for Forest Service R&D programs to provide science to support climate-smart forestry and conservation, including a specific allocation for the Wildlife and Fish Research Program.

### Science-management partnerships

Science-management partnerships is a primary principle for adaptation planning.<sup>29</sup> For example, the Forest Service has made a concerted effort to provide vulnerability assessments for use in forest planning and other agency decision-making processes. The Northern Rockies Adaptation Partnership (NRAP) is a science-management collaboration involving the 13 national forests of the Northern Region, the Forest Service's Pacific Northwest and Rocky Mountain Research Stations, the National Park Service (Glacier, Yellowstone and Grand Teton) and other academic and non-governmental institutions.

Recommendations:

- Recommit to adaptation partnerships and prioritize the development of robust science-management partnerships to improve adaptation, carbon and biodiversity management on NFS lands, including with Landscape Conservation Cooperatives.
- Seek funding to support assessment and planning for carbon and biodiversity across the NFS.

Question 3.D. What role should partners and stakeholders play, including State, local and Tribal governments, related to addressing wildfires?

### Shared Stewardship for climate adaptation and ecosystem services

The Forest Service, due to its central role in facilitating forest restoration actions across large landscapes, is in an ideal position to convene and facilitate work with states, Tribal governments, local governments and communities, collaborative groups, and other entities. The "shared stewardship" efforts with states and other interests in recent years hold promise as vehicles to advance climate-smart forestry practices, however, the prior administration's version of "shared stewardship" – it reflected output priorities around production of board feet and acres treated and did emphasize climate-smart management, conservation and planning – would require a reorientation. To ensure consistency in achievement of national climate-smart policy objectives, the agency should establish "climate-smart" policy sideboards for partnering with states and other entities.

Recommendation:

- Ensure consistency in achievement of national climate-smart policy objectives, the agency should establish policy sideboards for partnering with states, for example by defining essential terms for shared stewardship agreements with states.

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<sup>29</sup> Littell et al. 2011. [U.S. National Forests adapt to climate change through science-management partnerships. Climatic Change.](#)

- Revisit the recommendations of the National Advisory Committee for Implementation of the 2012 Planning Rule, which addressed multiple avenues for improving shared stewardship.
- Consistent with the administration’s carbon and biodiversity priorities, permanently authorize and provide sufficient funding for the Collaborative Forest Landscape Restoration Program and seek to convert the Joint Chiefs Landscape Restoration Partnership into a Congressionally authorized program.

#### Need for agency and non-agency experts

Researchers, practitioners, and others have identified numerous ways to improve fire management, such as by incorporating prescribed burning activities into fire management and restoration planning and decision-making, yet many of these recommendations have not been adopted by the agency. The agency should work with these experts to develop options to improve implementation of prescribed and managed fire.

Recommendation:

- Convene agency and non-agency experts in fire management and science to identify policy changes, including federal and state legislation, to facilitate increased use of prescribed fire and improved fire management. Recognize the value of local expertise and knowledge in land and wildfire management decisions, including traditional ecological knowledge and indigenous and local knowledge

#### Climate-smart Agriculture and Livestock Grazing Management

About 99% of permitted livestock grazing on NFS lands occurs in the more arid western states,<sup>30</sup> and range scientists have warned that livestock grazing will be increasingly unsustainable in the western U.S. due to climate warming.<sup>31</sup> Some grazing allotments on national forests and national grasslands are already unsuitable and not profitable for livestock production, and others are headed that direction. About 50% of NFS’s 193 million acres are available for livestock grazing, while about 40% are used, and the number of livestock permittees and the time livestock spend on NFS pastures is trending downward.<sup>32</sup> The Forest Service spends more administering the grazing program than the government brings in with grazing fees.<sup>33</sup>

Livestock grazing contributes to climate change and poses a threat to a multitude of imperiled species. Ruminants (cattle, sheep and goats) directly expel methane, a GHG, and the energy and water required to turn a live animal, once it leaves a grazing allotment, into a burger wrapped in cellophane and

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<sup>30</sup> USDA Forest Service. 2017. [Grazing Statistical Summary, FY 2016](#). June.

<sup>31</sup> Holechek et al. 2020. [Climate change, rangelands, and sustainability of ranching in the Western United States](#). Sustainability. 12(12): 4942.

<sup>32</sup> Congressional Research Service. 2017. [Statistics on Livestock Grazing on Federal Lands: FY2002 to FY2016](#). R44932.

<sup>33</sup> Congressional Research Service. 2019. [Grazing Fees: Overview and Issues](#). RS21232.

Styrofoam at the grocery store adds significantly to GHG emissions and exacerbates other climate impacts.<sup>34</sup> One of the most comprehensive studies undertaken of threats to endangered, threatened, and proposed (to be listed) species under the ESA found 22% were harmed by livestock grazing; of all the uses permitted on NFS lands including logging, mining and oil and gas extraction, livestock grazing was second only to recreation (including off-road vehicle use) as the greatest threat to federally protected species.<sup>35</sup> Of close to 3,000 imperiled plants in the U.S., livestock grazing is a threat to 33%, again just behind recreation, which negatively impacts 35% of these species.<sup>36</sup>

The USDA and Forest Service can take actions to buffer economic impacts to help people whose livelihoods are reliant on NFS livestock grazing permits and vulnerable to diminished ability to make a living off the land because of the changing climate and other factors. For example, voluntary grazing permit retirement – where permittees can work with third parties to trade in their permits and receive a one-time payment – is one viable, free market option to help ranchers move away from dependence on NFS lands. These transactions can also help imperiled wildlife whose habitats are threatened by livestock grazing. Despite win-win outcomes of voluntary grazing permit retirement, the Forest Service recently proposed disallowing these arrangements (Proposed Forest Service Handbook 2209.16, ch. 10, 10.6).

Despite these issues, the Forest Service has proposed revisions to its range management policy directives that are harmful to imperiled species, are contrary to the need for NFS lands to be managed to maintain or restore ecological integrity, and, in some ways, make it more difficult for grazing permittees to adapt to changing circumstances (85 Fed. Reg. 82432, December 18, 2020). The potential loss of the voluntary grazing permit retirement option stands among other misguided proposed changes.

Recommendations:

- Halt the current process to revise the range management directives.
- Undertake a rulemaking process for a climate-smart livestock grazing program while helping livestock producers adapt to disruptions due to climate warming by, for example, enabling voluntary grazing permit retirement allowing for vacant allotments to remain vacant.
- Support legislation that authorizing voluntary retirement of grazing permits.

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<sup>34</sup> Holechek et al. 2020. [Climate change, rangelands, and sustainability of ranching in the Western United States](#).

<sup>35</sup> Wilcove et al. 1998. [Quantifying threats to imperiled species in the United States](#). *BioScience*. 48(8): 607-615.

<sup>36</sup> Hernández-Yáñez et al. 2016. [A systematic assessment of threats affecting the rare plants of the United States](#). *Biological Conservation*. 203: 260-267.

## Environmental Justice

Questions in Section #4 of the notice asked how benefits of climate-smart agricultural and forestry programs and funding and financing capacities can be available to all stakeholders.

Climate-smart policy must be developed and implemented in a manner that promotes diversity, equity, and inclusion.

- Initiate a review and assessment of current barriers to participating in national forest affairs, including working for the Forest Service and accessing national forest lands, as experienced by underrepresented communities, so that the agency can begin to adopt and implement new policies and programs necessary to building a more inclusive Forest Service and NFS.
- Initiate an agency working group responsible for communicating opportunities and building partnerships to better understand the needs of underrepresented communities, especially as it relates to climate impacts on those communities.
- Adopt and implement policies to address these obstacles that historically disenfranchised communities face to access public lands and waters.

## Cooperation and coordination with Tribes

For Tribes, management of federal lands comes with the obligation to protect the reserved use rights, sacred land, and cultural resources found on those lands. The Forest Service must honor and support the U.S. government-to-government relationship with tribes and better integrate Tribal knowledge and concerns into the management of NFS lands.

Recommendations:

- Evaluate and improve the principle of shared stewardship with tribes, while always evaluating the impact of these arrangements on the nation's trust responsibilities to tribes as well as the Forest Service's mission.
- Develop and implement policies to increase the opportunity for tribes to participate in the management of NFS lands and identify opportunities for cooperative management arrangements and collaborative partnerships with tribes.<sup>37</sup>
- Engage, where requested, with tribes to develop specific cooperative and collaborative opportunities and the agency should look for opportunities to initiate such measures.

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<sup>37</sup> See: Mills and Nie. 2020. [Bridges to a New Era: A report on the past, present, and potential future of tribal co-management on federal public lands](#). Margery Hunter Brown Indian Law Clinic/Bolle Center for People and Forests, University of Montana. Missoula, MT. September.

- Consider the development of a working group to advise the Forest Service on issues associated with exploring opportunities for cooperative agreements and collaborative partnerships with tribes.
- Work to address gaps in the participation of Tribal communities in rulemaking, and issue guidance regarding best practices for meaningfully consulting and engaging with Tribal groups at the start of deliberations on rulemaking processes.

### Conclusion

We understand our recommendations provide an ambitious agenda for the Forest Service to develop a climate-smart agriculture and forestry strategy, but the time for action is now and we don't have the luxury of postponing essential policy actions. We've based it, to the greatest extent possible, on existing policies, programs, and authorities to make implementing the recommendations realistic. In some areas, the Forest Service can make considerable gains by fully and appropriately implementing and applying existing policy and reviving stagnant programs. In other cases, new policy or guidance is needed to meet the challenges of the climate and biodiversity crises. We're looking forward to seeing how the Forest Service develops and acts on a cohesive, comprehensive strategy.