

May 2, 2022

Reviewing Officer, Southwest Regional Forester
333 Broadway Blvd. SE
Albuquerque, NM 87102

Submitted via email to: objections-southwestern-regional-office@usda.gov

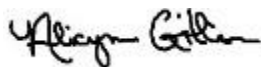
Re: OBJECTION to 4FRI Rim Country Project and 1985 Tonto Forest Plan Amendment

To the Reviewing Officer,

Sierra Club - Grand Canyon Chapter and WildEarth Guardians respectfully submit the following objection to the U.S. Forest Service concerning the agency's Final Environmental Impact Statement (FEIS) and Draft Record of Decision (Draft ROD) for the Four Forest Restoration Initiative (4FRI) Rim Country Project and 1985 Tonto National Forest Land Management Plan Amendment. See Project webpage: <https://www.fs.usda.gov/detail/4fri/planning/?cid=stelprd3837085>. The Forest Service describes the Rim Country Project as a project within the 2.4 million-acre 4FRI Initiative, aimed at accelerating the pace and scale of restoration treatments in the ponderosa pine forests of northern Arizona. The Rim Country Project proposes landscape-scale restoration treatments across 1.2 million acres spanning portions of the Apache-Sitgreaves, Coconino, and Tonto National Forests in northern Arizona. The agency states that the project aims to restore forest structure and composition to increase resilience and to reduce the risk of uncharacteristically severe fires in the future. Proposed activities include timber harvest, prescribed fire, stream and spring restoration, road construction, road realignment, temporary road construction, road decommissioning, and other actions. The Responsible Officials are Forest Supervisor Judith Palmer of the Apache-Sitgreave National Forests, Forest Supervisor Laura Jo West of the Coconino National Forest, and Forest Supervisor Neil Bosworth of the Tonto National Forest.

Lead objector:

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This letter is submitted on behalf of Sierra Club – Grand Canyon Chapter and WildEarth Guardians regarding the Four Forests Restoration Initiative (4FRI) Rim Country Project Final Environmental Impact Statement (Rim Country FEIS).

The Sierra Club’s mission is “to explore, enjoy, and protect the wild places of the earth; to practice and promote the responsible use of the earth’s ecosystems and resources; and to educate and enlist humanity to protect and restore the quality of the natural and human environments.” Inspired by nature, the Sierra Club’s more than 3.5 million members and supporters work together to protect our communities and the planet. Sierra Club has regularly participated in stakeholder meetings since 2010 and protection of the region’s forests and wildlife is a high priority for our membership in Arizona. Our members have a significant interest in this proposal as we have been very involved in protection of Arizona’s public lands and the wildlife that depend on them. The Sierra Club supports the need for forest restoration to protect wildlife habitat, watersheds, ecological integrity and ecosystem function. Our members believe that ecological values should always take priority over economic gain when managing our forests.

WildEarth Guardians is a nonprofit conservation organization with offices in Arizona and five other states. Guardians has more than 189,000 members and supporters across the United States and the world. Guardians’ mission is to “protect and restore wildlife, wild places, wild rivers, and the health of the American West.”

Sierra Club - Grand Canyon Chapter and WildEarth Guardians submitted timely comments on the 4FRI Rim Country Draft EIS (DEIS) on January 16, 2020 (hereafter, “2020 DEIS Comment”). Sierra Club - Grand Canyon Chapter also submitted scoping comments on the DEIS on August 11, 2016 (hereafter, “scoping comment”) and has been an active participant in the 4FRI process for more than a decade. Sierra Club - Grand Canyon Chapter and WildEarth Guardians have organizational and member interests in the proper and lawful management of timber activities and the forest road system on public lands, as well as the associated impacts on wildlife and wild places. These interests are magnified in light of the growing biodiversity and climate crises.

INTRODUCTION

On April 19, 2022, the Tunnel Fire, an 11 acre fire in the Coconino National Forest, grew to more than 16,000 acres within 24 hours. This fire began on Sunday, April 17, 2022; the fire’s start is under investigation but began on a lightning-free holiday weekend near a popular Forest Service road, just days after the Forest Service chose to open roads that had been closed for the winter. We might guess this was not a natural start. Driven by extraordinary winds that gusted in excess of 50 mph, the fire ran through rural residential communities, grasslands, pinyon-juniper and ponderosa forests, and across Sunset Crater National Monument, advancing at a rate of miles per hour with flame heights exceeding 100 feet

(<https://fronterasdesk.org/content/1773333/tunnel-fire-latest-wildfire-near-flagstaff>). Just a few nights before this catastrophic event, on April 13, the low temperature in the area was 17 F; the Flagstaff area was barely emerging from winter (<https://www.timeanddate.com/weather/usa/flagstaff/historic>).

We are clearly in a new fire regime. The Tunnel Fire was probably a human start that was likely facilitated by road access and recreational forest users (noting that the investigation is ongoing, this is only a guess). The fire, with a gruesome similarity to recent wind-driven fires that tore through communities in Boulder County, Colorado, was not driven by overly dense tall pine forests. In fact, the early stages of the fire burned through the sparsely treed 2010 Schultz Fire scar. 100% of Sunset Crater National Monument, which has no history of livestock grazing or other factors that are attributed to in the EIS as creating overstocked forests since its establishment in 1930, was completely burned through with flame heights exceeding 50 feet and hundreds of spot fires proceeding ahead of the fire's front at unstoppable speeds (the soil burn severity and resulting tree mortality in the monument is still unknown at the point of this writing).

There was no forest treatment that was going to prevent the Tunnel Fire. A day into the catastrophe, fire managers pleaded with those public who were not already forced to evacuate to create defensible space around their homes, noting that some embers were landing directly on roofs and starting spot fires that seemed unavoidable despite the best attempts at firewise landscaping (Dick Fleishman interview on KAFF Country, 4/20/22).

What is likely to prevent similar community-threatening wildfires in the future? We recognize there can be benefits from some forest treatments in appropriate locations, but we need to look at the bigger picture. We need to look at road densities. We need to manage recreational use, increase outdoors education, and ban wildfires in some areas, either seasonally or year-round, depending on risk levels. We need to increase the number of law enforcement and interpretive rangers who can make contact with recreational users. We need to research and enact invasive exotic grass and forb management and prevention. We need to increase resources for community protection, firewise landscaping, and building improvements, as well as education around reducing fire risk for infrastructure in the wildland-urban interface. We need to look at the reintroduction of indigenous burning practices where and when appropriate. And, at the greatest scale, we need to address climate change and the way we live in and near our forests.

Our objections below are made with the backdrop of the Tunnel Fire and the above suggestions are at the heart of our concerns. While some forest treatments may reduce the risk of wildfire, no amount of logging, thinning, or other "forest management" is going to stop the underlying drivers of recent wildfires: a legacy of fire suppression and unprecedented drought and extreme temperatures brought on by the climate crisis. We cannot dismiss the ecological value of fire, nor can treating every acre save all people, wildlife, soils, plants, and water from the impacts of the new fire regime we now live with.

On the night of April 19th, one of the authors of this document sat at home in Flagstaff, Arizona, reviewing the comments we submitted on January 16, 2020. One paragraph ominously stood out. We repeat it here:

Large fires are weather-driven events, not fuels-driven. When the conditions exist for a major fire—which includes drought, high temperatures, low humidity and high winds—nothing, including past logging and/or prescribed burning, halts blazes. And conditions for such fire activity will occur more frequently under likely climate change scenarios. Such fires typically self-extinguish or are stopped only when less favorable conditions occur for fire spread.

2020 DEIS Comment at 30.

OBJECTION POINTS

- 1. The Forest Service fails to provide site-specific information about its proposed road work, precluding the required “hard look” or meaningful public comment under NEPA and preventing the agency from demonstrating compliance with other federal laws.**

We previously submitted comments highlighting concerns about forest roads as part of this proposal, including impacts from system and non-system roads, as well as impacts to roadless areas and wilderness. See 2020 DEIS Comment at 2, 3, 58 (discussing how roads facilitate access), 60 (impacts of roads on MSO and its habitat), 69 (requesting analysis based on quantified metrics of road density), 81-88, 128. Many of our concerns stem from the lack of site-specific information and lack of certainty about the proposed road work. See, e.g., 2020 DEIS Comment at 3 (noting that the DEIS did not identify a single watershed-damaging road segment for decommissioning).

Our comments urged the Forest Service to consider and disclose its travel analysis report for the project area, identify the minimum road system (MRS), and explain how the road work proposed for this project will work towards achieving that MRS. See, e.g., 2020 DEIS Comment at 81. The Forest Service states that it considered the travel analysis reports for the three forests in the project and are referenced in the Transportation Report and DEIS. See FEIS, Appendix H, page 352. The Forest Service states that its regulations at 36 CFR 212 direct the Forest Service “to maintain a minimum road system.” See FEIS, Appendix H, at 343. Actually, the regulations state that for each national forest “the responsible official must identify the minimum road system needed for safe and efficient travel . . . ” 36 C.F.R. § 212.5(b). The Forest Service goes on to assert that the Rim Country analysis follows the land management plans and complies with regulatory direction, but the record demonstrates otherwise.

The three forests' travel analysis reports were not themselves agency action, and thus did not *identify* the minimum road system. By failing to take the opportunity to identify the minimum road system within this project area as part of this decision, the Forest Service continues to delay complying with its own rules. The Forest Service's delay of more than 20 years since the Forest Service finalized Subpart A of the Travel Management Rule is unreasonable, arbitrary, and capricious.

The Forest Service fails to provide the site-specific information necessary to ensure the agency took a hard look and to allow for meaningful public comment about the proposed road work. As just one example, the Forest Service fails to disclose where, when, or how it will complete the road work that is broadly authorized under its proposed decision. The agency fails to disclose or consider road density before, during, and after the project within the project area.

The Forest Service's analysis in its FEIS fails to disclose or consider numerous relevant and key factors. In turn, the agency fails to consider important direct, indirect, and cumulative impacts. We outlined these concerns in detail in our comments. See 2020 DEIS Comment at 82-88. The following are just several examples.

To start, the agency fails to explain how many miles of roads will be needed to complete the proposed activities (this includes existing system, newly constructed non-system, or existing non-system), much less where, or when, it will implement the proposed vegetation treatments (which necessarily will require use of forest roads). See, e.g., FEIS Appendix A (Maps do not include a map of temporary roads or specific vegetation treatment units with anticipated access roads). As far as we could tell, there is no map of proposed temporary roads. The Forest Service fails to disclose or analyze impacts from the proposed road work to aquatic macroinvertebrates beyond general conclusory statements. Compare 2020 DEIS Comment at 70 with, e.g., FEIS Vol. 1 at 16 (noting most watersheds in the Rim Country project area are rated fair or poor for road and trail density, location, distribution, and maintenance, and that "[r]oads near streams have the greatest effects on water quality"); *id.* at 30 (explaining that in response to the concern that "[t]he miles of temporary roads in the proposed action may negatively affect watershed and stream conditions, and wildlife habitat and connectivity," an alternative with fewer miles of temporary roads was developed, without addressing the risks of those roads based on location or proposed use).

The Forest Service also fails to take a hard look at the risk of wildfire from human-caused fires, where access is facilitated by (system and non-system, including temporary and unauthorized) forest roads. The agency fails to disclose or analyze reasonably foreseeable impact of spreading noxious weeds through the construction, reconstruction, decommissioning, relocation, and use of roads throughout the life of this project. And, the Forest Service fails to disclose or analyze in meaningful detail how bulldozing roads may exacerbate climate change effects (including hotter, drier, windier site locations) and changing local microclimate conditions.

By failing to disclose the necessary site-specific information about its proposal, the Forest Service fails to take a hard look at the proposed road activities in violation of NEPA. As just one example, the Forest Service asserts it will minimize short-term effects on water quality from roads by using design features including best management practices from Appendix C in the FEIS. See Draft ROD at 19. Without the site-specific information of where, when, or how the roads (system or non-system) will be constructed, reconstructed, relocated, decommissioned, used for log hauling or heavy equipment, etc., it is impossible for the public to meaningfully review or assess the reasonably foreseeable impacts from the roads in this project to water quality. By failing to provide this information, the Forest Service fails to take the required hard look or allow for meaningful public comment in violation of NEPA.

Suggested Resolution: Revise the FEIS and Draft ROD to disclose and analyze site-specific information regarding the baseline road system (including system and non-system, unauthorized roads) and the proposed actions on the road system. Revise the decision to include identification of the MRS.

Fails to Demonstrate Compliance with the National Historic Preservation Act

Without site-specific information regarding the proposed road work, it is impossible to assess how the proposed road work may impact or overlap with cultural resources. This precludes an understanding of whether the project complies with the National Historic Preservation Act. In fact, the Forest Service expressly forgoes making this demonstration *before* issuing its decision here. See Draft ROD at 32 (relying on “phasing of compliance with Section 106” of the NHPA). The Forest Service’s reliance on a Programmatic Agreement with New Mexico and Arizona cannot and does not eliminate the agency’s duty to demonstrate compliance with the NHPA *before* issuing a final decision under NEPA. The Forest Service may not re-write NEPA via programmatic agreements with the states.

Suggestion Resolution: Refrain from issuing a final ROD until the Forest Service demonstrates compliance with the NHPA.

Fails to Demonstrate Compliance with Clean Water Act

Without site-specific information, the Forest Service also fails to demonstrate how the project will comply with the Clean Water Act (CWA) or Arizona’s water quality standards. Under the CWA, states are responsible for developing water quality standards to protect the desired conditions of each waterway within the state’s regulatory jurisdiction. 33 U.S.C. § 1313(c). Water bodies that fail to meet water quality standards are deemed “water quality-limited” and placed on the CWA’s § 303(d) list. The CWA requires all federal agencies to comply with water quality standards, including a state’s anti-degradation policy. 33 U.S.C. § 1323(a). Here, the Forest Service fails to demonstrate how all of the activities proposed under this project will comply

with the CWA, especially in light of the lack of site-specific information regarding roads. Our comments identified the need for additional information to demonstrate compliance with the CWA and water quality standards. See 2020 DEIS Comment at 73-80. The proposal itself with its limited rationale and reference to lists of design criteria or best management practices (without identifying which criteria or practices will be used where, or when) lack sufficient detail or site-specific information to evaluate compliance with the CWA. The Forest Service's conclusory statements are insufficient to demonstrate compliance.

Suggested Resolution: Refrain from issuing a final ROD until the Forest Service demonstrates compliance with the CWA, including how the proposed activities will not cause or contribute to a violation of Arizona's water quality standards.

Decommissioning System Roads

We fully support the agency's commitment to decommission 490 miles of existing system roads, and 800 miles of unauthorized roads. Draft ROD at 4. The Forest Service's own best available science demonstrates that roads have tremendous adverse impacts to forest ecology, wildlife, and aquatics. See *also* Draft ROD at 12 (noting that "relocation and decommissioning of these existing roads will improve stream function and morphology" and "many beneficial effects" in the long term). The existing high road densities in the project area and science showing how harmful that system is makes the agency's commitment to complete such restoration all the more important.

However, in its draft decision the Forest Service fails to make any firm commitment on this decommissioning, instead offering to decommission "up to" 490 miles of system and 800 miles of unauthorized roads. Because the decommissioning may or may not occur, the public is left to speculate about the possible impacts. There is no way to determine what is reasonably foreseeable when the decommissioning may or may not happen, and the agency fails to disclose where, when, or how it will accomplish that decommissioning. This is especially concerning given the agency's historic tendencies to avoid road decommissioning due to claims of insufficient funding once a project gets underway. See, *e.g.*, 2020 DEIS Comment at 3.

Indeed, the agency hedges in its own statement of purpose and need by stating that the project will improve the motorized transportation system by providing a more sustainable road system "where poorly located roads are *relocated or* decommissioned." Draft ROD at 2 (emphasis added). The Forest Service admits that it has not completed the necessary hard look, stating that "[n]o roads designated for public motorized use would be decommissioned without additional decision-making in accordance with the Travel Management Rule." Draft ROD at 15 (emphasis added). To the extent the Forest Service seeks to authorize decommissioning of up to 490 miles of system roads and 800 miles of unauthorized roads in this decision-making process, all analysis under the Travel Management Rule belongs in this FEIS. Because it lacks any commitment to complete the decommissioning, the Forest Service's conclusion that its

selected alternative will provide an improved and more sustainable transportation system is not based on the facts in the record. This is arbitrary and capricious. The lack of a commitment to decommission roads is also inconsistent with the forest plans that each include direction to reduce roads to a minimum amount, in violation of NFMA.

Suggested Resolution: Revise the FEIS and Draft ROD to make a firm commitment about the number of system and unauthorized roads that will be decommissioned under this project, including site-specific details such as a reasonable timeframe for these actions, as well as where and how the activities will be completed. Without this information, the Forest Service's vague statements and equivocations about the true and actual nature of this project prevents the agency from taking the required "hard look" and prevents the public from meaningful review and comment in violation of NEPA. In the alternative, if the agency is unwilling to complete the necessary site-specific analysis under NEPA and in accordance with the Travel Management Rule to authorize the decommissioning of 490 miles of system roads and 800 miles of unauthorized roads, then it must admit and acknowledge that these actions are not actually part of its decision. If it takes this route (which we hope it will not), the Forest Service must eliminate from its analysis and Draft ROD the claimed benefits of decommissioning that it has not yet fully analyzed or authorized. Because decommissioning these roads will be hugely beneficial to the ecosystems within this project area, we strongly urge the Forest Service to take the first option and bolster its analysis and decision to include a true commitment to decommissioning.

Temporary Roads

The Forest Service proposes to construct or improve approximately 330 miles of temporary roads, including new and those occurring on existing unauthorized roads. See Draft ROD at 4. Pursuant to its own guidance and handbooks, the Forest Service must assess and disclose the existing conditions of any existing unauthorized roads. The agency may not simply use existing unauthorized roads as temporary roads in furtherance of this project. These unauthorized roads themselves may be poorly located or constructed not in compliance with Forest Service standards and best management practices. The idea that the agency would simply use unauthorized roads to complete vegetation management projects, without in the first place assessing the impacts of those roads and whether it makes sense for those roads to exist in each particular location is unreasonable, and violates the agency's own guidance and rules for managing the road system on this landscape (including both system and non-system roads).

The agency states it will decommission all roads "as restoration treatments are completed." Draft ROD at 4. See *also* Draft ROD at 15 ("all temporary roads will be decommissioned immediately following thinning and related restoration work"). Yet because there is no bounded timeframe for implementing the proposed thinning and related restoration work, and no timeline for completing the project as a whole, the statement that temporary roads will be decommissioned "immediately following" project activities is a completely hollow assurance. See, e.g., Draft ROD at 3 (stating the selected alternative authorizes "a suite of restoration

activities on approximately 991,060 acres over 20 years or until completed") (emphasis added). The agency fails to make any commitment to address the more than 300 miles of temporary roads within a date-certain or even within a reasonable estimated timeframe. Based on these vague statements and lack of commitment to a certain timeframe, the Forest Service fails to demonstrate how the project will comply with NFMA's limit on temporary roads on the landscape for no more than 10 years. 16 U.S.C. § 1608(b). It also fails to provide the public with sufficient site-specific information to meaningfully comment, and fails to meet NEPA's hard look requirement. There is no information about where, when, or how the restoration will be complete. Without more details to allow for evaluation of the mitigation, the Forest Service's reliance on restoration of temporary roads to reduce or mitigate those impacts is unreasonable.

Suggested Resolution: Revise the FEIS and Draft ROD to disclose site-specific information including but not limited to where and when temporary roads will be used, where existing unauthorized roads exist within the project area, which of those unauthorized roads might be necessary for vegetation management activities, whether those unauthorized roads meet Forest Service criteria and standards for use in vegetation management activities, and which design criteria or best management practices will be used where and when to reduce impacts from temporary roads. Revise the FEIS and Draft ROD to include a firm commitment about the timeframe of the project and timeframe for decommissioning temporary roads to provide necessary assurances, allow for meaningful evaluation of reasonably foreseeable impacts under NEPA, and ensure consistency with NFMA's limits on temporary roads for no more than 10 years.

2. The Forest Service fails to demonstrate how the Rim Country Project complies with NEPA, the ESA, or NFMA, as it relates to Mexican spotted owl and the owl's designated critical habitat.

We submitted comments identifying concerns about the risk of the proposed project to MSO habitat and viability. See 2020 DEIS Comment at 58-61. In particular, we highlighted concerns about unproven and controversial management approaches for MSO, and urged the Forest Service to take a more conservative approach within MSO habitat. *Id.*

The Forest Service's selected alternative authorizes mechanical thinning and/or prescribed fire on approximately 96,890 acres of MSO protected activity centers (PACs), including approximately 13,450 acres of mechanical thinning and prescribed fire, 1,190 acres of hand thinning and prescribed fire, and 82,250 acres of prescribed fire only. See Draft ROD at 3. In addition, the selected alternative includes mechanical thinning and/or prescribed fire on approximately 169,440 acres of MSO recovery habitat. *Id.* at 3-4. This includes 25,450 acres of mechanical thinning and prescribed fire in MSO replacement nest/roost recovery habitat, 2,830 acres of prescribed fire only in MSO replacement nest/roost recovery habitat, 133,630 acres of mechanical thinning and prescribed fire in MSO foraging/non-breeding recovery habitat, and 7,450 acres of prescribed fire only in MSO foraging/non-breeding recovery habitat. *Id.*

Because the proposed action will have significant impacts on MSO and its habitat, the Forest Service has a duty to take a hard look at these impacts and consider alternatives to its proposed action under NEPA. As explained below, it failed to do so in this EIS. The Forest Service also has a duty to demonstrate how the project will comply with the Endangered Species Act (ESA). We outline below how the proposed action and analysis fail to make that demonstration. And, the Forest Service has a duty to demonstrate how its proposed action will be consistent with the three applicable forest plans and their components for MSO, but as explained below it failed to do so in this FEIS and Draft ROD.

Failure to Take a Hard Look at Impacts to MSO and MSO Habitat, or Consider Alternatives Protective of MSO, in Violation of NEPA

“NEPA’s ‘hard look’ obligation requires agencies to consider potential environmental impacts, including ‘all foreseeable direct and indirect impacts,’ and ‘should involve a discussion of adverse impacts that does not improperly minimize negative side effects.’” *WildEarth Guardians v. U.S. Bureau of Land Mgmt.*, 457 F. Supp. 3d 880, 885 (D. Mont. 2020) (quoting *N. Alaska Env’t Ctr. v. Kempthorne*, 457 F.3d 969, 975 (9th Cir. 2006)). Here, the Forest Service fails to take a hard look at impacts to MSO or its critical habitat.

To start, the analysis lacks a sufficient baseline against which to measure impacts of the project on MSO or its critical habitat. Our comments highlighted the need for the Forest Service to determine the current status of MSO populations, including whether MSO populations are gaining towards recovery, trends in recovery habitat, PACs, or other MSO habitats. See 2020 DEIS Comment at 59. In terms of understanding the reasonably foreseeable impacts, our comments urged the Forest Service to provide site-specific information. But the FEIS continues to rely on the condition-based management approach that glosses over details and prevents meaningful or informed public comment about the project’s impacts to MSO or its critical habitat.

The Forest Service failed to consider and disclose numerous foreseeable direct, indirect, and cumulative impacts to MSO survival and recovery, and its habitat. As just one example, the Forest Service fails to disclose or consider the relevant and key factor of how prescribed fire to improve MSO habitat conditions is highly risky, uncertain, and controversial. Our comments highlighted that the proposal to use prescribed fire to improve habitat conditions within most PACs, including core areas, is highly risky. See 2020 DEIS Comment at 50, 58-59. Yet throughout its analysis the Forest Service largely assumes that its proposed vegetation treatments within MSO PACs and recovery habitat will achieve more resilient forests, and ultimately will improve conditions for MSO. See, e.g., FEIS Vol. I at 271 (“Of these acres modeled 15,869 acres (42 percent) have a High or Extreme need for treatment *and would experience higher severity wildfire than would occur in a natural fire regime if no action is taken*”) (emphasis added); Draft ROD at 13 (“Our selected alternative will improve forest structure for Mexican spotted owls as defined in

the 2012 Mexican spotted owl Recovery Plan per the condition-based management approach for mechanical treatments included in the Implementation Plan (Appendix D of the FEIS)” and “[t]reatments will also reduce the overall wildfire threat to Mexican spotted owl habitat”).

As another extremely concerning example, the Forest Service fails to take a hard look at the impacts of the proposed steep-slope cable logging on MSO and its critical habitat. MSO prefer large trees and steep slopes for nesting and roosting habitat. See, e.g., 2012 Recovery Plan at VIII (describing recovery nesting/roosting habitat as “typically occur[ring] in either well-structured forests with high canopy cover, large trees, and other late seral characteristics, or in steep and narrow rocky canyons”). Despite this preference, the Forest Service proposes steep-slope cable logging in the Rim Country Project. Making things worse, the Forest Service creates exceptions to the timber parameters set out in the 2012 Recovery Plan, without explaining how these exceptions are acceptable despite best available science to the contrary. See, e.g., FEIS Vol. 1 at 300-301 (noting that even though the 2012 Recovery Plan guidelines are to retain large trees (greater than 18 inches dbh) in Nest/Roost recovery habitat and to retain trees greater than 24 inches dbh in Foraging/Non-breeding or dispersal recovery habitat, treatments in the Rim Country Project are designed to allow exceptions for cable corridors). Without more justification or explanation, this blanket exception built into the project design is arbitrary and capricious.

In addition, because of the lack of details and site-specific information, we are also deeply concerned that the Forest Service may, in the future, turn to helicopter logging to complete some of the logging identified for steep-slope cable logging. This concern is based on the Forest Service doing precisely this bait and switch on previous project decisions. Helicopter logging would have serious impacts to MSO and its critical habitat. See, e.g., 2012 Recovery Plan at 234. These impacts have not been considered or disclosed in this NEPA analysis or the ESA consultation. The Forest Service must provide assurances and confirm in its Final ROD that this decision does not authorize helicopter operations, and that any proposal to use helicopter logging will require additional NEPA and ESA consultation.

The Forest Service also improperly downplays any likely short-term impacts and highlights the long-term perceived threats, without providing a basis for this skewed analysis. See, e.g., FEIS Vol. 1 at 301-313, esp. 312 (“Direct and indirect effects from project actions within protected activity centers and recovery habitat will be short term” and “Long-term benefits will conserve Mexican spotted owl habitat over time”). The Forest Service failed to respond to numerous opposing scientific viewpoints, including scientific viewpoints that undercut or conflict with the agency’s assumptions about the purpose, need, and effect of the project on MSO and its habitat. An agency’s failure to respond to opposing scientific viewpoints violates NEPA. NEPA requires that agencies disclose, discuss, and respond to “any responsible opposing view,” and provide a rationale for choosing one approach over the other. 40 C.F.R. § 1502.9(b). NEPA also requires agencies to consider all important aspects of a problem. See *WildEarth Guardians v. U.S. EPA*, 759 F.3d 1064, 1069-70 (9th Cir. 2014). The Forest Service also failed to consider reasonable

alternatives to the proposed action, including but not limited to an alternative that includes site-specific details (as opposed to the condition-based management approach) and an alternative that is more conservative in active management and possibly more protective of MSO and its critical habitat.

These concerns, combined with the lack of site-specific information under the condition-based management approach, precludes the agency from demonstrating it took a hard look at impacts, and precludes the public from providing meaningful comment.

Suggested Resolution: Revise the analysis to comply with NEPA by disclosing and analyzing site-specific information regarding reasonably foreseeable direct, indirect, and cumulative impacts to MSO and its critical habitat, and to consider reasonable alternatives that will achieve the stated purpose and need with less risk and harm to MSO and its critical habitat.

Demonstrate Consistency with 2020 Commitments to WildEarth Guardians

The Forest Service also fails to demonstrate how this project is consistent with its own commitments set forth in its Oct. 26, 2020 settlement letter to WildEarth Guardians. We did not previously comment on this point because this information was not available during an earlier designated opportunity for public comment in January 2020. The Forest Service's commitments apply specifically to projects within the Apache-Sitgreaves and Coconino National Forests, but based on best available scientific information, and the 2012 Recovery Plan direction, the commitments should apply equally to the Tonto National Forest.

The Forest Service specifically committed to, *inter alia*:

- Continue monitoring owl population trends on National Forest System lands in the Southwest Region through 2025, consistent with the 2012 Recovery Plan. See 2012 Recovery Plan at 77, 323-333.
- Conduct protocol occupancy surveys prior to ground-disturbing activities within Recovery Habitat to identify and protect owls, and designate Protected Activity Centers (PACs) if surveys detect an owl and the data meets the definition of an owl site. See 2012 Recovery Plan at 74, 259, 299-322. If the agency elects not to conduct such surveys, the Forest Service must assume owl presence within the project area not surveyed plus a buffer of 0.5 miles and implement management constraints and mitigation measures recommended by the Recovery Plan for areas occupied by nesting and roosting owls. See 2012 Recovery Plan at 261-63.
- Apply the adaptive management framework suggested by the Recovery Plan and assess the effects of mechanical and prescribed fire treatments on MSO and its habitat in PACs outside of core areas based on "rigorous and quality controlled management

experiments” developed collaboratively between the Forest Service and FWS to determine the effects of mechanical treatments within Recovery Habitat but outside of PAC core areas on owl and owl habitat; and prescribed fire treatments within Recovery Habitat on owls and owl habitat. See 2012 Recovery Plan at 282-83, 297, 385. This includes pre-, during, and post-treatment monitoring of MSO in treatment and reference PACs for the 4FRI Phase I management experiment.

To follow through on its commitments to WildEarth Guardians, here the Forest Service must revise its analysis and Draft ROD in several ways, including but not limited to the following three key changes. First, it must disclose and analyze the region-wide owl population trends based on the latest monitoring data in the FEIS. We were unable to find any information regarding region-wide owl population trends based on the latest monitoring data in the FEIS.

Second, it must assume owl presence within the project area not surveyed plus a buffer of 0.5 miles, and implement management constraints and mitigation measures recommended by the Recovery Plan for areas occupied by nesting and roosting owls. This applies to any portion of the Rim Country Project area not surveyed *prior to the final NEPA decision*. The Forest Service states that 214 PACs occur in the Rim Country Project area, including seven new PACs added in 2021 “after the forest vegetation simulator and fire modeling was completed.” FEIS Vol. 1 at 268. It is unclear, but appears that the Forest Service has not completed surveys consistent with the 2012 Recovery Plan protocols to identify PACs within the project area, instead relying on modeling.

The Forest Service states that “up to 93,346 acres in protected activity centers are proposed for other thinning and/or burning, or other restoration activities in alternatives 2 and 3.” FEIS Vol. 1 at 269. There is no site-specific information disclosed. Without the pre-implementation survey information, it is impossible for the public to provide meaningful comment and it is impossible to discern the reasonably foreseeable impacts to MSO. As set forth by the Forest Service itself, to the extent the agency wishes to defer gathering of site-specific information including owl surveys prior to making its final decision on this project, it must apply a precautionary approach for conserving the owl.

Third, the Forest Service must disclose and analyze all data collected through the pre-, during, and post-treatment monitoring of MSO in treatment and reference PACs for the 4FRI, Phase 1 project consistent with the monitoring plan for that project and consistent with that project’s BiOp. Explain how the data from 4FRI, Phase 1 informs the proposed activities under the 4FRI Rim Country Project. For this 4FRI Rim Country Project, disclose the monitoring plans and explain how these monitoring protocols reflect the requirements needed for the management experiments to inform how actions affect owl occupancy and owl habitat, as promised in the Forest Service’s Oct. 26, 2020 letter. The Forest Service committed to take into account the lessons learned from the 4FRI Phase I and FWPP management experiments, any other

applicable projects, and the best available science in developing the monitoring plan for 4FRI Rim Country.

It is extremely concerning that the Forest Service fails to provide the information necessary to build upon the anticipated lessons learned from the 4FRI Phase 1 project in this Rim Country Project. Indeed, it is extremely concerning that the Forest Service and FWS appear to gloss over the increasing uncertainty about the effects of these projects despite repeated commitments to apply an adaptive management approach that *learns from past mistakes*. FWS itself admits in the 2022 MSO BiOp that for the 4FRI Phase 1 project, “almost seven years has elapsed and *we have not substantially increased our knowledge of treatment effects to owls and owl habitat*.” See 2022 BiOp at 151. Instead of assessing what that means for the Rim Country Project (perhaps because the results are not as conclusive as the agencies claimed they would be), the Forest Service and FWS dismiss the previous commitments and approach and “propose a different study design for the Rim Country Project *to meet our objective*.” *Id.* At this point, it seems glaringly obvious that the Forest Service and FWS have no intention of using a methodological, scientific approach to assessing lessons learned and adapting future actions. Instead, it plans to monitor to achieve the claimed outcomes. As noted in the ESA section that follows, the so-called monitoring plan is wholly inadequate to assess the impacts of the proposed actions, including the effectiveness of design features. The Forest Service’s failure to actually implement the adaptive management approach it espouses for Rim Country (where it again proposes, in theory, to use this an adaptive approach) is absurd, arbitrary, and capricious. At bottom, this demonstrates that the Forest Service has failed to fulfill that commitment in the FEIS and Draft ROD. See, e.g., FEIS Appendix E (Monitoring and Adaptive Management Plan, which defers to the 2022 BiOp for any monitoring requirements); 2022 BiOp Appendix C at 151-152 (Mexican Spotted Owl Monitoring Plan).

Suggested Resolution: Consistent with existing commitments from the Forest Service’s Oct. 26, 2020 letter to WildEarth Guardians, compile, analyze, and disclose in a revised FEIS the data that resulted from monitoring MSOs in treatment and reference PACs pre, during, and post-treatment as part of 4FRI Phase 1 (Coconino and Kaibab National Forests, UGM EMU). Explain how the forest management recommendations in this next phase of 4FRI are based on the Phase 1 monitoring data and assessment of effects, in addition to best available scientific information. This is the adaptive management framework set out in the 2012 Recovery Plan and that Region 3 of the Forest Service committed to in its Oct. 26, 2020 letter to WildEarth Guardians.

Failure to Demonstrate Compliance with the Endangered Species Act

The Forest Service has an independent duty to demonstrate compliance with the Endangered Species Act (ESA). Under Section 7(a)(2) of the ESA, the Forest Service has an independent duty to consult with FWS to ensure the Rim Country Project is not likely to (1) jeopardize the continued existence of any threatened or endangered species, or (2) result in the destruction or adverse modification of the critical habitat of such species. See 16 U.S.C. § 1536(a)(2). For

MSO, the Forest Service has a duty to demonstrate how this project complies with the ESA, and also how this project is consistent with the programmatic Biological Opinions for each of the forests.

The Forest Service determined the 4FRI Rim Country Project is likely to adversely affect MSO and its designated critical habitat in its April 2021 biological assessment. In its March 4, 2022 biological opinion (2022 BiOp), FWS concluded that the Rim Country Project is not likely to jeopardize the continued existence of MSO, and that it “would affect, would continue to serve the function and conservation role of critical habitat” for the MSO. See March 4, 2022 BiOp, page 97-98.

A biological opinion violates the ESA if it “fails to consider[] the relevant factors and articulate a rational connection between the facts found and the choice made.” *Ctr. for Biological Diversity v. U.S. Bureau of Land Mgmt.*, 698 F.3d 1101, 1121 (9th Cir. 2012) (internal quotations marks and alterations omitted). FWS’s 2022 BiOp is flawed, especially as it relates to assessing impacts to MSO and its critical habitat, for numerous reasons including but not limited to those outlined herein.

To start, the 4FRI Rim County Project will have massive impacts to MSO and its critical habitat—but these impacts are largely glossed over because of the lack of site-specific details disclosed under the condition-based management approach. The 4FRI Rim Country Project is within the Upper Gila Mountains (UGM) Ecological Management Unit (EMU) for MSO. The following map on the left shows the UGM EMU (from page 16 of the 2012 Recovery Plan), with black dots showing MSO sites. The following map on the right shows the 4FRI Rim Country project area, shaded in gray (from page 2 of the Draft ROD). See *also* FEIS Vol. 1 at 268-271.

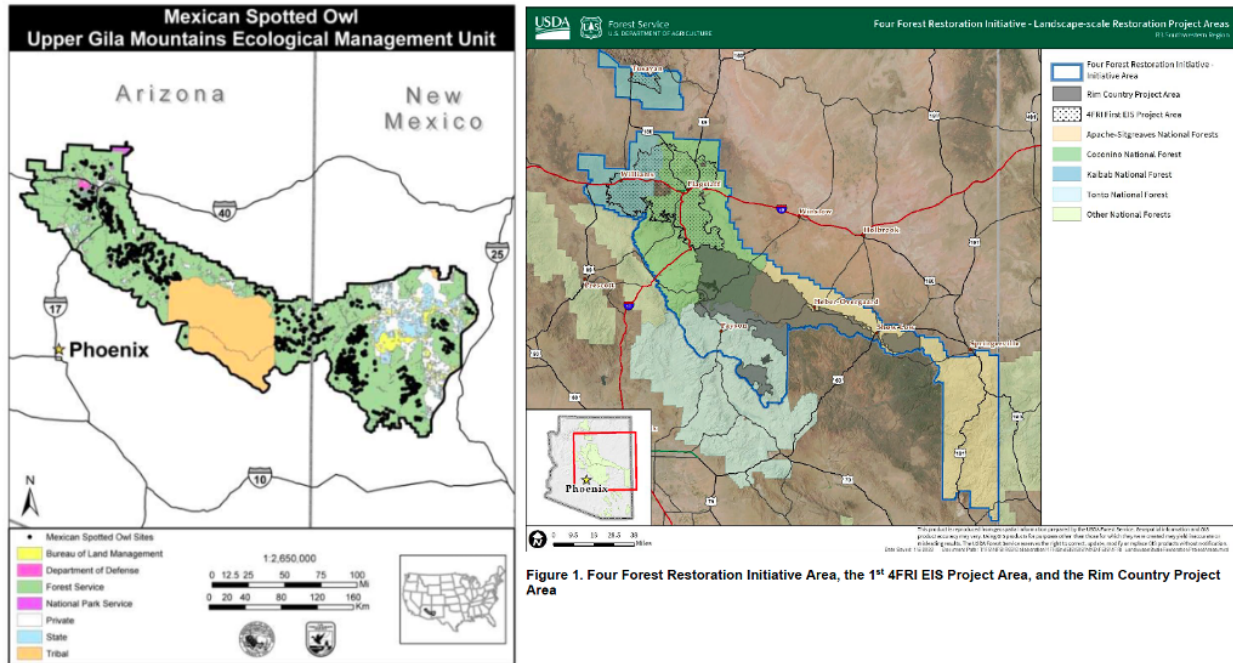


Figure 11.4. Upper Gila Mountains Ecological Management Unit for the Mexican spotted owl in the southwestern United States. The lack of mapped sites within potential owl habitat is an artifact of a lack of data and does not necessarily indicate absence of owl sites.

Figure 1. Four Forest Restoration Initiative Area, the 1st 4FRI EIS Project Area, and the Rim Country Project Area

FWS’s 2022 BiOp is legally flawed because, *inter alia*, it lacks a rational connection between the facts found and the choice made. As just one example, FWS largely adopts the Forest Service’s unsupported assumptions that the proposed vegetation treatments within MSO PACs and recovery habitat will achieve more resilient forests, and ultimately will improve conditions for MSO and its habitat. FWS itself admits there is uncertainty of whether the proposed actions will achieve the Forest Service’s claimed results. See, e.g., 2022 BiOp at 66 (“If the proposed action is able to reduce the risk of large, high-intensity fire to PACs and nest/roost replacement habitat, the most substantial effect to owls, in the long term, would be beneficial”) (emphasis added); *id.* at 68 (“Resource managers are still learning how to conduct mechanical thinning treatment in owl habitat and as such, there is little data to show that mechanical thinning is able to create the modeled conditions when the intent is to remove trees and fuels,” and “[i]t is also unclear how over the next 20 years climate change within the project area would exacerbate long-term drought; wildfire size and intensity; and what compounding effects these things would have on owl habitat”); *id.* at 151 (“We do not fully understand the effects of these treatments to owls and their nesting/roosting habitat”) (emphasis added).

Despite these admissions, FWS concludes “[d]esired conditions and design features in the Rim Country Project would reduce the potential for landscape level, stand-replacing fire in pine-oak and mixed-conifer forests that the Mexican spotted owl occupies” and “would also provide for future nest/roost replacement recovery habitat on the landscape” and thus “[t]hese actions would contribute to owl recovery in the UGM and BRW EMUs.” 2022 BiOp at 68. FWS also concludes that “the Rim Country Project would affect, would continue to serve the function and conservation role of critical habitat for the Mexican spotted owl.” 2022 BiOp at 98.

There is a complete disconnect between the uncertainty about the proposed treatments, lack of site-specific information indicating where, when, or how the treatments will be implemented, and the FWS's conclusions in the 2022 BiOp. As stated throughout our comments and objection, the Forest Service's and FWS's assumptions ignore high degrees of uncertainty and risk about the impacts of the proposed actions (especially in the context of a changing landscape due to climate change) and there is ample evidence of opposing scientific viewpoints that call into question these assumptions. See, e.g., 2020 DEIS Comment at 58-61. FWS's conclusions do not rationally reflect the information (and lack thereof) in the record, and are thus arbitrary and capricious.

Another reason that FWS's 2022 BiOp is legally flawed is that the agency's no jeopardy determination for MSO and no adverse modification determination for MSO critical habitat is not based on "the best scientific and commercial data available." 16 U.S.C. § 1536(a)(2). FWS fails to consider or address best available science, including science that undercuts the assumptions from the Forest Service about the efficacy and long-term impacts of the proposed logging and prescribed burning. As just one example, the Fish and Wildlife Service should address whether and to what extent it believes Reynolds, et al. 2013, constitutes best available scientific and commercial information, and whether it believes Reynolds, et al. 2013 is consistent with the 2012 Recovery Plan as well as the 2019 Biological Opinion underlying the Forest Service's 1985 Forest Plan.

FWS's 2022 BiOp improperly relies on vague, ill-defined, and general statements about desired conditions and design features to conclude the Rim Country Project "would reduce the potential for landscape level, stand-replacing fire in pine-oak and mixed-conifer forests that the Mexican spotted owl occupies." See 2022 BiOp at 98. As noted elsewhere in this objection, the Forest Service fails to provide the necessary site-specific information about where, when, or how it will implement the various possible desired conditions and design features under its condition-based management approach—and instead proposes to make those decisions later. See, e.g., FEIS Appendix D at 330 (noting that "biologists will coordinate with US Fish and Wildlife Service prior to implementing treatments in PACs and recovery nesting and roosting habitat"). Pursuant to the ESA, that coordination and consultation about the impacts of specific actions must occur before the Forest Service signs a final decision authorizing the Rim Country Project. Without more information about whether and how the proposed design features and mitigation measures will be used, it is impossible to evaluate the efficacy of such proposed actions. It is arbitrary and capricious for FWS to rely on such vague and ill-defined desired conditions and design features to conclude the Rim Country Project will not jeopardize MSO, and "would contribute to owl recovery in the UGM and BRW EMUs." 2022 BiOp at 98.

Also, the 2022 BiOp's so-called monitoring plan for the Rim Country Project's effects to MSO and MSO critical habitat is wholly inadequate. See 2022 BiOp Appendix C at 151-152. Essentially, the monitoring plan is a summary of a new study design using GPS technology to track owls across

the landscape. Nothing in the monitoring plan tracks implementation or impact of proposed vegetation treatments to MSO critical habitat. There are no details, much less an implementation plan or schedule for the monitoring plan itself. And, the BiOp terms and conditions do not require implementation of a final monitoring plan as an essential component of the Rim Country Project, despite the Forest Service's express commitment to do so in its Oct. 26, 2020 letter to WildEarth Guardians. The lack of a monitoring plan is likewise arbitrary and capricious, rendering the 2022 BiOp legally unsound.

In turn, the Forest Service may not rely on FWS's flawed 2022 BiOp for MSO and its designated critical habitat. The Forest Service's reliance on a deficient BiOp violates the ESA. *Ctr. for Biological Diversity v. U.S. Bureau of Land Mgmt.*, 698 F.3d 1101, 1128 (9th Cir. 2012).

Suggested Resolution: Refrain from making a final decision on the ROD until FWS and the Forest Service are able to demonstrate compliance with the ESA for impacts from the Rim Country Project to MSO and its designated critical habitat.

Amendment to the 1985 Tonto Forest Plan to Modify MSO Components

Our comments highlighted concerns about the Forest Service's proposed project-specific amendments to the 1985 Tonto Forest Plan, including amendments to the MSO components. See 2020 DEIS Comment at 48-50. We noted that the DEIS failed to include the actual language of the amendment for MSO components, failed to explain why the amendment was necessary (how the project would otherwise be inconsistent with the 1985 Tonto Forest Plan), and failed to explain how the amendment would benefit MSO. *Id.* We urged the Forest Service to include its amended forest plan in any formal ESA consultation with the Fish and Wildlife Service. *Id.*

The Forest Service's Draft ROD states a project-specific amendment to the 1985 Tonto forest plan is necessary for "three different exception areas," including ponderosa pine vegetation, MSO components, and mechanical treatments on steep slopes. See Draft ROD at 2. The Forest Service fails to explain why this proposed amendment is appropriate as a project-specific amendment as opposed to a full forest plan amendment, especially if the problem is that the 1985 Tonto Forest Plan's components for MSO are inconsistent with the 2012 Recovery Plan. This would seem to warrant a full forest plan amendment. The Forest Service states it is "a one-time variance" in the Tonto Forest Plan specifically for the Rim Country Project. Draft ROD at 11.

The Forest Service explains that the MSO amendment "would except the project from the monitoring requirement in the Tonto National Forest Land Management Plan and would instead implement the monitoring specified in the" FWS BiOp. FEIS Vol. 2 Appendix B at 243. As explained above, there is no monitoring plan set out in the 2022 BiOp, and the summary of GPS monitoring of specific owls is inadequate to monitor the effects of the proposed treatments under the Rim Country Project. The Forest Service fails to take a hard look at the impacts of this

change (essentially, dropping any meaningful monitoring of impacts from vegetation treatments or commitments to monitor for MSO coming into the project area in exchange for GPS tracking of captured MSO within the project area). It fails to consider the reasonable alternative of implementing monitoring consistent with the Forest Service's Oct. 26, 2020 commitments (which the agency itself acknowledged are consistent with the 2012 Recovery Plan). And the Forest Service and FWS failed to consult under the ESA on the amendment to the 1985 Tonto Forest Plan. The 2022 BiOp does not cover the proposed changes to MSO components in the 1985 Tonto Forest Plan.

Suggested Resolution: Delay issuing a final ROD until after re-initiating and completing consultation on the amendments to the 1985 Tonto Forest Plan. Revise the analysis in the FEIS to take a hard look at the impacts of "Exception 2" amendment for MSO monitoring, including disclosing and analyzing the actual monitoring plan (because there is none in the 2022 BiOp).

Failure to Demonstrate Compliance with the Three Forest Plans, in Violation of NFMA

Under the National Forest Management Act (NFMA), the Forest Service has a duty to demonstrate how the proposed actions under the Rim Country Project will be consistent with the three applicable forest plans and their components to protect MSO and MSO critical habitat. 16 U.S.C. § 1604(i); 36 C.F.R. § 219.15. A project or activity must be consistent with all applicable plan components, including the desired conditions, standards, and guidelines. See *All. for the Wild Rockies v. United States Forest Serv.*, 907 F.3d 1105, 1110 (9th Cir. 2018). Here, the Forest Service fails to demonstrate how the proposed actions will be consistent with the Apache-Sitgreaves, Coconino, and Tonto Forest Plans. Our comments explained how the three existing Forest Plans appear to be largely irrelevant to the Forest Service's analysis of the Rim Country Project. See 2020 DEIS Comment at 5.

The Forest Service states that a "land management plan consistency check" was completed for this project and is included in the project record. See FEIS Vol. 3 at 270. But the agency's proposal itself and the analysis fail to provide sufficient detail or site-specific information to evaluate compliance with the Forest Plans as part of the NEPA process. Instead, the agency largely relies on project design features (specific implementation of which will be determined at some future point) to achieve consistency with the plans and reduce any potential impacts on resources, including impacts to MSO or its critical habitat. See FEIS Vol. 1 at xi (noting that Appendix C (Design Features) and Appendix D (Implementation Plan) "give[] guidance for Forest Service personnel to ensure treatments and activities are implemented to meet . . . land management plan standards and guidelines."). This is insufficient and violates both NFMA and NEPA.

The Forest Service failed to demonstrate how the Rim Country Project will be consistent with the three forest plans' MSO components in its FEIS or Draft ROD. As just one example, the Apache-Sitgreaves Forest Plan states that "[v]egetation conditions for Mexican spotted owl

(MSO) and other federally listed species, . . . are managed consistent with the habitat requirements specified in the appropriate species recovery plan.” See Aug. 2015 Land Management Plan for the Apache-Sitgreaves National Forests, page 27. The Forest Service does not attempt to analyze or demonstrate how the Rim Country Project will be consistent with the MSO 2012 Recovery Plan. Section E of Appendix D in the FEIS fails to identify the specific plan components or identify the different forest plans, much less provide an explanation for compliance. Indeed, some of the “notes” anticipate exceptions without providing details. See, e.g., FEIS Appendix D, Section E, at 361 (“Timing restrictions [for MSO] may be waived on a case by case basis if protocol level surveys confirm non-nesting or an active nest is more than 0.25 miles from project work” or “if the district biologist, in coordination with USFWS determines actions within the 0.25 mile will not disturb breeding birds”).

As another example, the Apache-Sitgreaves Forest Plan states a guideline for woodlands: “Where Mexican spotted owls are found nesting in canyons or on north slopes within the Madrean pine-oak woodland, adjacent treatments should be modified to meet the needs of foraging birds.” *Id.* at 54. Again, the Forest Service does not attempt to demonstrate how the Rim Country Project is consistent with this guideline. The agency’s conclusory statements and list of design features and hypothetical mitigation measures do not demonstrate compliance with the forest plans, in violation of NFMA.

Suggested Resolution: Issue a new NEPA analysis with sufficient site-specific information to demonstrate how the Rim Country Project will be consistent with the three forest plans, and in particular those plans’ components related to protection of MSO and MSO habitat.

3. The Forest Service’s reliance on condition-based management is unreasonable and violates NEPA.

Our comments stated that the Forest Service’s “flexible toolbox approach” (also referred to as condition-based management) improperly circumvents NEPA. See 2020 DEIS Comment at 13-15. See also FEIS, Vol. I at 31 (“The Flexible Toolbox Approach is now called the Condition-based Management approach”). The Forest Service asserts it clarified the condition-based management approach in the FEIS “to be more predictable, reliable, and repeatable.” See FEIS, Vol. I at 31. However, these clarifications (including additional integration between aquatic and upland restoration activities, development of a treatment tracking process to validate effects, etc.) still fail to demonstrate compliance with NEPA.

Under the Forest Service’s own NEPA regulations, a proposal is subject to NEPA when: (1) the agency has a goal and is actively preparing to make a decision on one or more alternative means to accomplish that goal and effects can be meaningfully evaluated; (2) the proposed action is subject to Forest Service control and responsibility; (3) the proposed action would cause effects on the environment; and (4) the proposed action is not statutorily exempt from the requirements of section 102(2)(C) of NEPA. 36 C.F.R. § 220.4(a) (emphasis added). To be sufficient, an EIS

must “present[] a full and fair discussion of significant environmental impacts and [] inform decision makers and the public of reasonable alternatives that would minimize adverse impacts.” 40 C.F.R. § 1502.1. Because the condition-based management approach delays the agency’s decision on one or more alternative means of accomplishing the stated goals of the Rim Country Project and fails to disclose information to allow for meaningful evaluation, the Forest Service fails to comply with its own NEPA regulations or CEQ’s regulations implementing NEPA.

Essentially, the Forest Service seeks a “black box” and “blank check” that fails to comply with NEPA. It is a “black box” because the agency does not identify and disclose which treatments (or combination of treatments) will occur, where, or when, or which roads will be used to reach those treatments, nor does it disclose the conditions on the ground across the vast area that could be treated. It is a “blank check” because the agency fails to define where, when, or how it will implement the project until *after* the NEPA process is complete and authorization is granted. This violates NEPA, which requires disclosure to demonstrate wise decision making and to allow for meaningful public comment *before* a decision is made.

We have major concerns about the unreasonableness of condition-based management in the context of this project. This is especially true regarding the proposed steep slope treatments, cable operations, logging of old and large trees, impacts to MSO, and activities within inventoried roadless areas (IRAs). The Forest Service claims it revised the FEIS to address public concerns about the use of condition-based management, including by adding integration between aquatic and upland restoration activities, developing a treatment tracking process to identify accomplishments and validate effects, listing priority areas for aquatic and watershed restoration by AGFD, removing regeneration openings, mapping wildland urban interface and infrastructure protection treatments extent and location, and redefining the definition of old and large trees (now termed SALT) to be compatible with condition-based management. Yet none of these changes addressed the main concern: that the agency proposes to make a final decision green-lighting this project *before* disclosing and analyzing site-specific information that is necessary to meeting NEPA’s hard look requirement. With this FEIS and Draft ROD, the agency is insisting on its “leap before it looks” condition-based management approach. Because it fails to inform the public *before* its decision, this violates NEPA.

The Forest Service’s vague and general sideboards are insufficient to comply with NEPA. The Forest Service itself states that the design features (Appendix C) and implementation plan (Appendix D) provide guidance to ensure treatments and activities are implemented to meet the purpose and need of the forest plan standards and guidelines. See, e.g., FEIS Vol. I at xi. Yet this is more akin to ensuring project compliance with a forest plan. These appendices do not provide sufficient information to demonstrate the Forest Service took a “hard look” at the impacts of the project, much less allow the public to meaningfully review and comment on the project. Specifically, Appendix C, Table C-1 provides a list of possible “design features, best management practices, mitigation, and conservation measures” that goes on for 50 pages. See

FEIS, Vol. II, pages 261-311. The agency fails to identify which of these design features will be used where, or how it would make that decision. The true nature of the activities and implementation of any of these features is left to the discretion of the agency at some point down the road, well after this NEPA process is complete.

The problematic aspects of the condition-based management approach become especially clear when applied in a particular context. For example, the Forest Service fails to disclose or analyze site-specific activities within inventoried roadless areas (IRAs). See, e.g., FEIS Vol. 2 Appendix D at 337 (stating that all or portions of eight IRAs exist in the project area, and activities will occur within these IRAs but will “require additional notification and approvals, and incorporate design features”). It is impossible to determine or assess whether the Forest Service’s proposal will maintain roadless characteristics without more detailed information about the types of activities that will occur within the eight IRAs, when, where, and which design features the agency will rely on for mitigation. Indeed, the fact that the activities within IRAs will require additional approvals is evidence that the Forest Service seeks to greenlight its decision before taking the necessary hard look, in violation of NEPA.

At bottom, this FEIS fails to comply with NEPA because it fails to provide site-specific information necessary to understanding the reasonably foreseeable impacts before the decision is made. The agency fails to provide the information necessary for meaningful and informed public comment and to ensure wise decision making. As just one example, in response to comments asking for greater transparency about road-related actions, the Forest Service states it will “use a condition-based approach to determine what is needed and develop maps during implementation” and “the public can see the road work that would be completed when the timber sale is out for bid.” FEIS, Appendix H at 344. The public is literally cut out of the process and precluded from the ability to determine and comment on reasonably foreseeable impacts from road activities. This is just one example of many throughout the Draft ROD and FEIS. Due to the lack of site-specific information, the Forest Service fails to take the required “hard look” at impacts. The agency’s approach here contravenes the twin aims of NEPA.

Not only does the agency’s lack of site-specific details and approach of using condition-based management combined with adaptive management violate NEPA, but it is unreasonable in light of the scale, scope, and potentially infinite timeframe of this decision. The Forest Service states that to meet the stated purpose and need for action, the four forests “are proposing a suite of restoration activities on approximately 991,060 acres over a period of 20 years *or until completed.*” FEIS, Vol. I at viii (emphasis added). It fails to define when, where, or how it will implement the suite of potential activities. And the lack of clarity regarding the timeframe is extremely concerning, especially given the lack of definition regarding the scope of proposed actions. It appears the authorized project activities could continue beyond 20 years, potentially indefinitely, because there is no concrete definition of what project “completion” is outside of the vaguely defined desired conditions the agency asserts are the goal.

What's more, NEPA § 102(2)(E) requires agencies to "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources." 42 U.S.C. § 4332(2)(E). This is distinct from the question of whether a proposal will have significant impacts (requiring an EIS). Under § 102(2)(E), even an EA needs to evaluate alternatives when a proposal involves unresolved conflicts. See, e.g., *Trinity Episcopal Sch. Corp. v. Romney*, 523 F.2d 88, 93 (2d Cir. 1975) (explaining that an unresolved conflict exists whenever an agency's objective "can be achieved in one of two or more ways that will have differing impacts on the environment."). The determination of where, when, and how to implement the activities proposed in this project is precisely the type of action that involves unresolved conflicts about alternative uses of available resources. This is especially true for activities like vegetation management on steep slopes, cutting of old growth, large tree retention, and treatments within important MSO habitat. The Forest Service could have, and should have, analyzed an alternative that specifically identified the where, when, and how of proposed treatments. By skipping it, the agency fails to consider a range of reasonable alternatives. And it fails to justify why this alternative is not reasonable in light of the statement of purpose and need. At bottom, the Forest Service's condition-based approach here, which fails to identify where, when, and how it proposes to implement the activities, precludes a meaningful analysis of alternatives, in violation of NEPA.

Suggested Resolution: Recognize the NEPA analysis as a programmatic EIS, given the extensive amount of site-specific information, details, and studies that are missing from the analysis and the likely significant impacts the proposed actions will have. Under this scenario, the Forest Service would maintain the flexibility to subsequently tier future EAs to this programmatic analysis and analyze narrower, more streamlined site-specific projects. See, e.g., Council on Environmental Quality (2014), *Final Guidance for Effective Use of Programmatic NEPA Reviews*, page 10. In the alternative, revise this NEPA analysis to provide the necessary site-specific information, details, and studies to allow for disclosure of impacts, analysis of reasonable alternatives, and meaningful and informed public comment.

4. The Forest Service does not provide enough site-specific information to understand how natural fire processes will be restored to the landscape. Prioritization of treatments, including managed fire, must occur prior to implementation.

In our scoping and DEIS comments, we specifically requested the Forest Service answer the following questions in the Rim Country FEIS:

- Where and under what conditions can natural ignitions be managed for resource benefit under current Fire Management Plans?
- Where can treatments be located to facilitate containment and management of planned or unplanned ignitions within firescapes or subsets thereof?
- How can treatments be positioned and sequenced to most efficiently reduce the potential for landscape-scale crown fire?

2020 DEIS comment at 26; 2016 scoping comment at 3-4

The goal of 4FRI must be to restore natural processes to the landscape, not to create a perpetual need for mechanical treatments. Appendix D of the Rim Country FEIS contains the beginning of an optimization process that includes identification of “areas [that] would not receive mechanical treatment but would instead use both management and natural ignitions at frequencies commensurate with natural fire regimes to achieve resource benefits.” Fire Ecology Specialist Report at 151 to 155. There is also a discussion of prioritization in the Rim Country DEIS v1 at 218, explaining that, “The prioritization of treatment areas will be a part of the implementation of Rim Country.” In order for the public to understand and comment on the 4FRI project, we need to see a definitive proposal for prioritization/optimization including a clear explanation of where and under what conditions natural ignitions would be allowed to burn. This should be presented in the body of the EIS or in the Implementation Plan (Appendix D).

The Forest Service reports that “Alternative 2 proposes prescribed fire across the project area and would also incorporate the use of any naturally occurring fire contributing to resource benefits.” Rim Country FEIS v1 at 69. We do not see *where* or under what conditions naturally occurring fire would be allowed to burn. Because decisions concerning naturally occurring fire ignitions must be made quickly, and because the Forest Service is unlikely to have the resources to implement prescribed fire at the required intervals to restore natural conditions to a significant part of the landscape, the Forest Service should fully disclose its decision making process, including where and under what conditions natural fires would be allowed to burn and “where it is not possible to allow fire to fully resume its natural role within an ecosystem” (i.e. 2020 comment at 27; Fire Ecology Specialist Report at 18). Without defining where natural fire can occur, the Forest Service might perpetuate unnecessary fire suppression as a management policy and fail to solve the problem that this FEIS is meant to deal with.

The Forest Service must disclose the temporal sequence of restoration treatments (locations and methods) that will enable it to achieve a state of forest “restoration” across a significant portion of the landscape - a state where the goals of the project are significantly met and catastrophic wildfire threats are reduced in a majority of the project area. To protect public resources, protect communities, and prevent wasteful practices that delay the achievement of forest restoration, a prioritization/optimization process must be completed prior to a final ROD.

Suggested Resolution: The Forest Service must complete the prioritization/optimization process so that treatments are executed in the temporal order in which they will have the greatest positive effect. The Forest Service must explain the methodology for determining prioritization/optimization and the results of the process. The explanation of the prioritization/optimization should answer the following questions:

- Where and under what conditions can natural ignitions be managed for resource benefit under current Fire Management Plans? Where can't they be managed for resource benefit?

- Where can treatments be located to facilitate containment and management of planned or unplanned ignitions within firescapes or subsets thereof?
- How can treatments be positioned and sequenced to most efficiently reduce the potential for landscape-scale crown fire?

5. The Forest Service fails to demonstrate how the Rim Country Project complies with NEPA, the ESA, or NFMA regarding its reasonably foreseeable impacts to wildlife and wildlife habitat.

We commented that the Forest Service needs to disclose additional information including baseline conditions and site-specific details of the proposed action to demonstrate it took a hard look at the direct, indirect, and cumulative impacts to terrestrial and aquatic wildlife. See 2020 DEIS Comment at 55-58. For example, our comments stated concerns about the lack of clear sideboards or sufficient detail to ensure conservation of mature forests that many of the wildlife rely on. *Id.* Our comments also identified concerns about how the project will result in habitat fragmentation, and urged the Forest Service to consider impacts to habitat connectivity that is important for wildlife. 2020 DEIS Comment at 72-73. The Forest Service failed to address our concerns in the FEIS and Draft ROD.

Failure to Demonstrate Compliance with NEPA

The Forest Service's FEIS fails to show the Forest Service took the required "hard look" at impacts to other terrestrial and aquatic wildlife, or considered alternatives to achieve the stated purpose and need that would result in lesser adverse impacts to terrestrial and aquatic wildlife. This includes ESA-listed species: Chiricahua Leopard Frog, Western yellow-billed cuckoo, Mexican wolf, Gila trout, Little Colorado spinedace, Gila chub, Gila topminnow, razorback sucker, loach minnow, spikedace, narrow-headed gartersnake, and northern Mexican gartersnake. It also includes terrestrial Forest Service sensitive species: Northern leopard frog, Lowland leopard frog, bald eagle, golden eagle, northern goshawk, American peregrine falcon, burrowing owl, Navajo Mogollon vole, western red bat, spotted bat, Allen's Lappet-browed bat, and Pale Townsend's big-eared bat; aquatic sensitive species include desert sucker, Sonoran sucker, Little Colorado sucker, headwater chub, roundtail chub, netwing midge, Fallceon eatoni and Moribaetis mimbresaurus (mayflies), Capnia caryi (stonefly), Lepidostoma apache, Lepidostoma knulli, Limnephillus granti and Wormaldia planae (caddisflies), Parker's clyloepus riffle beetle, Ferris' copper and Nokomis fritillary (butterflies), Fossil springsnail, and California floater (mussel); and terrestrial Management Indicator Species (MIS) include: Pronghorn antelope, Pygmy nuthatch, Turkey, Rocky Mountain elk, Hairy woodpecker, Abert's squirrel, Violet green swallow, Ashthroated flycatcher, Gray vireo, Townsend's solitaire, Juniper (Plain) titmouse, Northern (Common) Flicker, Arizona gray squirrel, Western bluebird, Western wood peewee, and Black hawk.

As noted in the condition-based management section of this objection letter, site-specific information is necessary to understand the reasonably foreseeable impacts of the Rim Country Project. This is especially true when attempting to understand impacts to wildlife or wildlife habitat within the project area, because understanding the timing, location, and nature of treatments in relation to important wildlife habitat or aquatic environments is essential to determining the reasonably foreseeable impacts. Yet the Forest Service fails to provide the necessary site-specific information to demonstrate it took a hard look at impacts to wildlife, much less allow for meaningful and informed public comment about the reasonably foreseeable impacts from the Rim Country Project.

As just one example, Table 76 purports to list the acres of mechanical vegetation treatment for each species' habitat. See FEIS Vol. 1 at 395. These numbers fail to provide sufficient information to discern the anticipated direct, indirect, or cumulative impacts to species or species' habitat. In particular, the Forest Service admits that mechanical vegetation treatments including cable operations have the potential for negative short-term impacts to riparian conditions and individuals where these activities occur in a species' habitat. FEIS Vol. 1 at 394. However, the agency fails to disclose or analyze where it proposes mechanical vegetation treatments or cable operations near riparian habitat important for specific species. Instead, under the condition-based management approach the Forest Service summarily states that "[a]cres of mechanical vegetation treatments under alternative 2 ranges from 2 to 12,616 acres within species habitat which equates to 26 percent to 83 percent of the species habitats within the project area." FEIS Vol. 1 at 394. This information is so vague and broad, it is virtually meaningless for assessing impacts to wildlife. The lack of site-specific information prevents the Forest Service from taking the required "hard look" and precludes meaningful public comment, in violation of NEPA. What's more, here, too, the Forest Service fails to address opposing scientific viewpoints including those that identify how the project's impacts are highly uncertain and subject to significant controversy.

Suggested Resolution: Revise the analysis in the FEIS to disclose site-specific information to show that the Forest Service took a hard look at the reasonably foreseeable direct, indirect, and cumulative impacts of the project, to allow for an analysis of reasonable alternatives, and to allow for meaningful and informed public comment.

Failure to Demonstrate Compliance with the ESA for ESA-listed Wildlife Species and Designated Critical Habitat

As noted above, the Forest Service has an independent duty to demonstrate compliance with the ESA. In addition to MSO and its critical habitat, this duty applies to ensuring the project will not jeopardize or result in adverse modification of critical habitat for the following ESA-listed species: Little Colorado spinedace and its designated critical habitat, Chiricahua leopard frog and its designated critical habitat, narrow-headed gartersnake and its designated critical habitat, Gila trout, Western distinct population segment (DPS) of the yellow-billed cuckoo and its

designated critical habitat, Gila topminnow, spinedace, spinedace designated critical habitat, loach minnow and its designated critical habitat, Gila chub and its designated critical habitat, and the nonessential experimental population of Mexican wolf.

The Forest Service determined the proposed action “may affect, and is likely to adversely affect” the Little Colorado spinedace (*Lepidomeda vittata*; spinedace) and its designated critical habitat, the Chiricahua leopard frog and its designated critical habitat, the narrow-headed gartersnake (*Thamnophis rufipunctatus*; gartersnake) and its designated critical habitat, the Gila trout (*Oncorhynchus gilae*; Gila trout or trout), and the Western distinct population segment (DPS) of the yellow-billed cuckoo (*Coccyzus americanus*; cuckoo). The Forest Service determined the Rim Country Project “may affect, but is not likely to adversely affect” the endangered Gila topminnow (*Poeciliopsis occidentalis*) and spinedace (*Meda fulgida*), or spinedace and loach minnow (*Tiaroga cobitis*) designated critical habitat. The Forest Service determined the proposed action is not likely to jeopardize the nonessential experimental population of the Mexican wolf (*Canis lupus baileyi*; wolf).

In turn, FWS determined the “Rim Country Project, as proposed, is not likely to jeopardize the continued existence of” the Little Colorado spinedace, Chiricahua leopard frog, narrow-headed gartersnake, Gila trout, and western DPS of yellow-billed cuckoo, and is not likely to destroy or adversely modify critical habitat for the spinedace, frog, and gartersnake. 2022 BiOp at 97-98. As explained in the MSO section above, the FWS’s 2022 BiOp is legally flawed for numerous reasons, including that it lacks sufficient information to support the agency’s conclusion and that FWS’s conclusions do not rationally relate to the Forest Service’s project record (showing immense uncertainty about the effects of the proposed vegetation treatments). It is arbitrary and capricious for the Forest Service to rely on the legally flawed 2022 BiOp.

The Forest Service determined that the proposed action would not affect the endangered loach minnow, the Gila chub (*Gila intermedia*; chub) and its designated critical habitat, and cuckoo critical habitat. The threshold for a “may affect” determination is very low, and ensures “actions that have any chance of affecting listed species or critical habitat—even if it is later determined that the actions are not likely to do so—require at least some consultation under the ESA.” *Karuk Tribe of Cal. v. U.S. Forest Serv.*, 681 F.3d 1006, 1028 (9th Cir. 2012). Under the FWS Consultation handbook, the “may affect” threshold is met if “a proposed action may pose any effects on listed species or designated critical habitat.” U.S. Fish and Wildlife Serv. & Nat’l Marine Fisheries Serv., *Endangered Species Consultation Handbook: Procedures for Conducting Consultation and Conference Activities Under Section 7 of the Endangered Species Act*, page xvi (1998) (emphasis in original). The regulations implementing the ESA require an examination of both the direct effects of the action as well as the indirect effects of the action, which are defined as “those effects that are caused by or will result from the proposed action and are later in time, but are still reasonably certain to occur.” 50 C.F.R. § 402.02. Therefore, an agency must consult in every situation except when a proposed action will have “no effect” on a listed species or critical habitat. Without site-specific information about the location, timing, and nature of vegetation

management, temporary road construction, or forest system road use, there is no basis and it is unreasonable and arbitrary and capricious for the Forest Service to determine the project will have “no effect” on the endangered loach minnow, the Gila chub (*Gila intermedia*; chub) and its designated critical habitat, and cuckoo critical habitat.

Suggested Resolution: Refrain from making a final decision on the ROD until FWS and the Forest Service are able to demonstrate compliance with the ESA for impacts from the Rim Country Project to all ESA-listed species and designated critical habitat.

6. The Forest Service fails to demonstrate compliance with NEPA, CFLRA, or NFMA in its analysis of old and large trees.

Failure to Demonstrate Compliance with NEPA for Old and Large Trees

The Forest Service fails to provide sufficient site-specific information regarding its proposed cutting of old and large trees, and fails to take a hard look at the direct, indirect, and cumulative impacts of its proposal. Here, too, the Forest Service’s condition-based management approach means the agency fails to disclose or analyze site-specific information regarding its proposed actions and how they will impact old growth and tree age classes. Our comments noted how the vague statements in the analysis and lack of detail potentially create huge loopholes in the decision that would allow cutting of numerous large and old trees throughout the project area. 2020 DEIS Comment at 51-54.

The Forest Service’s analysis in the FEIS fails to provide the details or clarity that would prevent those loopholes, and fails to disclose or analyze the impacts of those loopholes. For example, the agency’s “Old Tree Implementation Plan” fails to cure the deficiencies and repeats summary, vague and generalized statements about preserving old trees. See FEIS Appendix D at 315-317 (Section B, Old Tree Implementation Plan) (“Removal of old trees would be rare”). The identification of old trees appears to be purely subjective, left to the Forest Service’s ID team to make determinations in the field, well after close of this NEPA process and a final decision is made. Guidance in Section B appears only applicable to ponderosa pine. Where and when to allow removal of old trees also appears to be authorized on an ad-hoc basis at any point in the future. Without more details, it is impossible to comment on this “implementation plan” except to demand site-specific information and more meaningful sideboards for making these determinations.

Likewise, the agency’s Large Tree Implementation Plan lacks sufficient detail or information to demonstrate a hard look, much less allow for meaningful or informed public comment. See FEIS Appendix D at 317-325 (Section C, Large Tree Implementation Plan) (explaining the plan “is designed to inform implementation” but “[t]his plan may not include every instance where large post-settlement trees may be removed” and “[d]uring implementation (prescription development), if there is a condition where land management plan desired conditions conflict

with the exception condition categories listed below . . . [t]he district would decide whether the action is consistent with the analysis and the decision made”). Thus even the vague exception categories listed in the Large Tree Implementation Plan are not exclusive. These guidelines are insufficient to allow the public to meaningfully comment and do not comply with NEPA’s requirements to disclose and analyze reasonably foreseeable direct, indirect, and cumulative impacts. The Forest Service’s proposal anticipates cutting trees over 16 inches dbh. FEIS Appendix D at 318 (“For the purpose of this document, large post-settlement trees, as defined by the socio-political process, are those that are 16-inch diameter at breast height (d.b.h.) or larger”). The exceptions apply to allow cutting of large aspen, ponderosa pine and Gambel oak (including within MSO recovery habitat). FEIS Appendix D at 321-325. But the agency forgos any actual proposal to cut large trees to some point after the close of the public NEPA process.

To ensure large tree retention, in addition to the Old Tree Implementation Plan and Large Tree Implementation Plan, the Forest Service points to the number of acres meeting the collaboratively developed criteria for Stands with an Abundance of Large Trees (SALT). Ponderosa pine stands may be considered a SALT stand where the basal area of ponderosa pine trees greater than 18 inches is more than 40 square feet of basal area per acre. See FEIS Vol. 1 at 148. The Forest Service states that under Alternative 1, no trees would be removed through cutting and thus all large and old trees are expected to remain. FEIS Vol. 1 at 158. It states that “[a]cross all 5th HUC watersheds in the analysis area the number of acres meeting SALT criteria is currently estimated to be 44,742 acres” and “would increase to 87,098 by 2039.” *Id.* Under the selected Alternative, the Forest Service anticipates the average number of acres meeting SALT “would increase to 77,397 acres by 2039.” *Id.* at 169. This additional information provided for the first time in the FEIS further undercuts the Forest Service’s assumptions regarding the long-term impacts of its proposed actions.

The Forest Service states that it removed dwarf mistletoe mitigation from the analysis. See FEIS Vol. 1 at ix. But there is still a discussion of how to treat mistletoe infected stands. FEIS Vol. 2 at 337. It appears that the Forest Service removed dwarf mistletoe treatments from the Rim Country Project, but that the Draft ROD and FEIS still anticipate managing dwarf mistletoe under this project “through individual tree removal to increase the resilience and sustainability of ponderosa pine ecosystems.” See Draft ROD at 18. The Forest Service should clarify its approach to dwarf mistletoe by, in part, disclosing site-specific details about its proposed actions and adding robust sideboards for dwarf mistletoe management.

The Forest Service fails to take a hard look at the impacts of cutting large and old trees, ignoring best available science that shows the importance of conserving old growth and conserving old, mature forests—especially in the context of the growing climate crisis. See, e.g., B. Law & W. Moomaw, Keeping trees in the ground where they are already growing is an effective low-tech way to slow climate change, *The Conversation* (Feb. 23, 2021), available at <https://theconversation.com/keeping-trees-in-the-ground-where-they-are-already-growing-is-an-effective-low-tech-way-to-slow-climate-change-154618> (last viewed April 25, 2022) (statement

from two experts in the field, “Recent projections show that to prevent the worst impacts of climate change, governments will have to increase their pledges to reduce carbon emissions by as much as 80%” and “We see the next 10 to 20 years as a critical window for climate action, and believe that permanent protection for mature and old forests is the greatest opportunity for near-term climate benefits” (emphasis added). The Forest Service fails to meaningfully address this important issue in its analysis. Our comments highlighted the beneficial impacts of retaining old and large trees. 2020 DEIS Comment at 54. Our comments also noted the highly uncertain impact of logging old and large trees to improve old-growth wildlife habitat. 2020 DEIS Comment at 53-54.

Under NEPA the Forest Service has a duty to disclose, discuss, and respond to “any responsible opposing view,” and provide a rationale for choosing one approach over the other. 40 C.F.R. § 1502.9(b). NEPA also requires agencies to consider all important aspects of a problem. See *WildEarth Guardians v. U.S. EPA*, 759 F.3d 1064, 1069-70 (9th Cir. 2014). The agency failed to do so here. As just one example, the Forest Service did not address the opposing scientific viewpoints set forth in Gillihan 2006 (cited repeatedly in our DEIS comments). It is not even mentioned in the agency’s response to comments. See FEIS Appendix H.

In addition to the science included in our 2020 DEIS Comment, significant new information since the close of the comment period demonstrates there are opposing scientific viewpoints that undercut the Forest Service’s assumptions about the impacts of cutting old and large trees. The most recent 2022 IPCC Sixth Assessment Report states that “[s]ince AR5 there is increasing evidence that degradation and destruction of ecosystems by humans increases the vulnerability of people (*high confidence*)” and that “[u]nsustainable land-use and land cover change, unsustainable use of natural resources, deforestation, loss of biodiversity, pollution, and their interactions, adversely affect the capacities of ecosystems, societies, communities and individuals to adapt to climate change (*high confidence*).” Available at: <https://www.ipcc.ch/report/ar6/wg2/> (last accessed April 19, 2022). The Forest Service fails to meaningfully assess the impacts from this project to climate change, as well as impacts from climate change to this project, in light of this significant new information.

In more recent scientific studies, some scientists conclude that: “Preserving and protecting mature and old forests would not only increase carbon stocks and growing accumulation, they would address accelerating species loss and ecosystem deterioration and provide greater resilience to increasingly severe weather events.” See B. Law, et al., *The Status of Science on Forest Carbon Management to Mitigate Climate Change and Protect Water and Biodiversity* (Mar. 9, 2022) at 1. Thus, opposing scientific viewpoints and significant new information questions the Forest Service’s assumptions that cutting trees is the most effective path to a resilient forest. The Forest Service must address these opposing viewpoints and significant new information in a revised analysis.

The Forest Service has a duty to gather and evaluate relevant new information, and update its analysis, especially before a final decision is made. Federal agencies have “a ‘continuing duty to gather and evaluate new information relevant to the environmental impacts of its actions,’ even after release” of a final analysis under NEPA. See *Friends of the Clearwater v. Dombeck*, 222 F.3d 552 (9th Cir. 2000) (quoting *Warm Springs Dam Task Force v. Gribble*, 621 F.2d 1017, 1023 (9th Cir. 1980)). The Forest Service’s NEPA handbook requires that the agency “[b]e alert for new information and changed circumstances that might affect decisions for actions that are awaiting implementation and for ongoing programs or projects to determine if the environmental analysis and documentation needs to be corrected, supplemented, or revised.” Forest Service Handbook 1909.15, Ch. 18, available at https://www.fs.fed.us/im/directives/fsh/1909.15/wo_1909.15_10_Environmental%20Analysis.doc (last accessed April 25, 2022).

What’s more, in light of the changing climate and changing political landscape the Forest Service should reconsider its proposed vegetation treatments. On April 22, 2022, President Biden signed an Executive Order titled “Executive Order on Strengthening the Nation’s Forests, Communities, and Local Economies (April 22, 2022), available at <https://www.whitehouse.gov/briefing-room/presidential-actions/2022/04/22/executive-order-on-strengthening-the-nations-forests-communities-and-local-economies/> (last accessed April 23, 2022). In it, President Biden set forth his policy to conserve old-growth and mature forests, explaining that “[c]onserving old-growth and mature forests on Federal lands . . . is critical to protecting these and other ecosystem services [including carbon storage] provided by those forests.” *Id.* Rather than cut down old and mature forests, President Biden states, “[i]t is the policy of my Administration, in consultation with State, local, Tribal, and territorial governments, as well as the private sector, nonprofit organizations, labor unions, and the scientific community, to . . . conserve America’s mature and old-growth forests on Federal lands.” The Forest Service must take meaningful and immediate action to conserve old and large forests like those at stake in the Rim Country Project by adding robust sideboards. At the very least, the Forest Service must revise its NEPA analysis to address and respond to the significant new information and opposing scientific viewpoints.

Finally, our comments supported and urged the Forest Service to consider in detail the reasonable alternative of implementing the Old Growth Protection and Large Tree Retention Strategy developed by the Stakeholder Group. See 2020 DEIS Comment at 50-51. The Forest Service fails to consider reasonable alternatives, including but not limited to an alternative that incorporates the Old Growth Protection and Large Tree Retention Strategy. The Forest Service’s reasons for eliminating an alternative that adopts the Old Growth Protection and Large Tree Retention Strategy are not reasonable.

Suggested Resolution: Revise the analysis in the FEIS to disclose site-specific information to show that the Forest Service took a hard look at the reasonably foreseeable direct, indirect, and cumulative impacts of the project, to allow for an analysis of reasonable alternatives, and to

allow for meaningful and informed public comment. Revise the analysis in the FEIS to respond to responsible opposing viewpoints and to address significant new information since the close of the prior comment period.

Failure to Demonstrate Compliance with the Three Forest Plans, in Violation of NFMA

The Forest Service's analysis also fails to demonstrate how the proposed cutting of old and large trees (and the "implementation plans") will ensure compliance with the three forests' plan components related to logging old and large trees. As noted in the MSO section above, nothing in the FEIS demonstrates compliance with specific provisions of the three forest plans. The same deficiencies apply related to plan components, including standards and guidelines, designed to protect old and large trees.

Suggested Resolution: Refrain from finalizing the decision until the agency revises the NEPA analysis and project parameters to demonstrate compliance with the three forest plans as required under NFMA.

7. The Forest Service Did Not Properly Analyze, and Does Not Justify a Need for, or Benefit of, Steep Slope Logging nor "Exception 3" of the Land Management Plan Amendment for Tonto National Forest

The first 4FRI FEIS and ROD ("2015 FEIS") specifically omitted mechanical treatments on slopes >40% because by not treating steep slopes and certain other habitat types and special land designations, the Forest Service could ensure that it would protect a mix of canopy conditions including very open, open, moderately closed, and closed canopy "to achieve a heterogeneous condition across the landscape." 2015 FEIS at 11. Avoiding these areas would also protect soils and water quality. 2015 FEIS at 139, 140, 141. There was another reason for omitting steep slopes from consideration for treatment in the 2015 FEIS: the stakeholder group chose to focus on treating areas that were unlikely to be controversial in the quest to find consensus among stakeholders and in order to avoid delaying project implementation.

Sierra Club and Wild Earth Guardians questioned the lack of science supporting Land Management Plan Amendment for the Tonto National Forest Exception 3 ("Exception 3") in our 2020 DEIS Comment. We pointed out conflicts between the Soil and Watershed Specialist Report and the DEIS, and identified the lack of quantitative detail and missing analysis of impacts from steep slope logging. 2020 DEIS Comment at 50, 70-71.

Although the Forest Service worked closely with the 4FRI Stakeholder Group to collaboratively develop the Rim Country EIS, gave presentations to help the 4FRI Stakeholder Group understand what was in the DEIS, and met regularly with a subgroup of Stakeholders to work through disagreements about the content of the DEIS, the 4FRI Stakeholder Group appeared surprised when they learned, during a presentation in the fall of 2021, that the Rim Country FEIS included

steep slope mechanical treatments. In fact, “USFS indicated they would review NEPA to determine if mechanical thinning is allowed on steep slopes - report at Nov SHG [Stakeholder Group] meeting,” became an action item on October 27, 2021 and was resolved on November 17, 2021 with the explanation in the minutes that, “the first EIS did not address steep slope mechanical thinning, however, Bill Williams area and Flagstaff Watershed Protection do allow this, and Rim Country NEPA has some allowances but with caveats.” 4FRI Stakeholder Group Meeting Minutes for Wednesday, November 17, 2021 at 1.

The Forest Service’s justification, pointing to the Bill Williams and Flagstaff Watershed Protection Projects, is misleading and the analysis presented in the 2020 FEIS is insufficient to determine the impacts of mechanical steep slope logging on 54,609 acres of the Project Area. FEIS at 291. The type of cable logging proposed in the 2020 FEIS has never been executed as part of the Bill Williams or Flagstaff Watershed Protection Projects. Both projects omitted cable logging from their implementation. From the Bill Williams Mountain Restoration Project ROD: “cable logging is no longer included in the project.” Bill Williams Mountain Restoration Project ROD at 6. The Forest Service decided to use ground-based techniques and helicopter logging instead; these techniques were not analyzed in the 4FRI Rim Country EIS. Bill Williams Mountain Restoration Project at 24, 26.

The Forest Service analyzed both cable and helicopter logging techniques as part of the Flagstaff Watershed Protection Project but decided to use helicopter logging when the project was implemented. Helicopter logging drastically increased Flagstaff Watershed Protection Project implementation costs at \$70 per acre compared with \$41 per acre for the next most expensive system. Flagstaff Watershed Protection Project FEIS at 440-443. Helicopter logging was not analyzed in the Rim Country DEIS or FEIS and therefore cannot be implemented as part of the Rim Country 4FRI project.

Because the Stakeholder Group was unaware of the addition of steep slope treatments between the 2015 EIS and the Rim Country EIS until a mention in a Forest Service presentation in October, 2021, there was not a robust discussion of the topic and no position taken amongst Stakeholders. The omission of steep slope logging was a major parameter placed on the 2015 4FRI EIS and, for many stakeholders, an assumed parameter for the Rim Country analysis. Concerns about steep slope treatments were not included in Stakeholder Group comments or discussions with the Forest Service regarding Stakeholder-desired changes to the EIS and to project implementation. In a small subgroup meeting of stakeholders and the Forest Service on April 18, 2022 (in which Sierra Club participated), Forest Service staff told stakeholders and Sierra Club that there was analysis of steep slope logging in the 2020 DEIS but it was largely relegated to specialist reports. According to the Forest Service, more clarification of cable logging was added to the Rim Country FEIS but the FEIS does not include acreage totals for steep slope treatments, which will be conducted using both cable logging and ground based logging methods (pers comm, meeting between USFS and 4FRI Stakeholder EIS Subgroup, 4/18/22).

While Sierra Club is not an “official” 4FRI Stakeholder, we include this background because Sierra Club has participated in 4FRI Stakeholder meetings for more than a decade, and participated in small group “EIS subgroup” discussions between Stakeholders and the Forest Service for approximately two years prior to the release of the Rim Country FEIS. Sierra Club did identify steep slope logging as problematic in our 2020 DEIS comments, together with Wild Earth Guardians, and we wish to recognize a major failure of process occurred by omitting the disclosure to the stakeholder group of this major change in policy when planning the Rim Country EIS. While Sierra Club and Wild Earth Guardians objected to the use of steep slope techniques and the associated Forest Plan amendment in our 2020 DEIS comments, the topic was extremely understated in the 2020 DEIS. 2020 DEIS Comment at 50, 70-71. It wasn’t until seeing the Rim Country FEIS that we (and, evidently, the Stakeholder Group too) realized we needed more information on the location, total acreages, methods, and direct, indirect, and cumulative effects of steep slope logging on important landscapes including, but not limited to, critical habitats, Mexican Spotted Owl protected areas, Inventoried Roadless Areas, nominated or designated Wild and Scenic River corridors, sensitive soils and watersheds, etc. There was no real opportunity for the public to comment on these aspects of the project because we haven’t ever seen them explained.

Steep slope logging techniques were clearly an afterthought in Rim Country 4FRI planning. The FEIS indicates that the “40 percent slope amendment exception to the 1985 Tonto Land Management Plan” was added “from scoping to publication of the DEIS.” FEIS at 34. The DEIS mentions steep slope logging several times in association with the proposed Land Management Plan Amendment for the Tonto National Forest but doesn’t analyze steep slope logging direct, indirect, or cumulative impacts or discuss steep slope logging techniques aside from the mention that, “the design of mechanized ground-based equipment has progressed to allow operations on steep slopes more effectively and without adverse effects on soil resources.” DEIS at 533. Cable logging was not analyzed in the Rim Country DEIS, though it was mentioned in Appendix C - Design Features, Best Management Practices, Mitigation, and Conservation Measures. Rim Country DEIS at 579-580. Helicopter logging was not analyzed in the Rim Country DEIS or FEIS. The Rim Country FEIS specifically analyzed cable logging as its steep slope logging method. FEIS at 291, 300-301. In the Draft ROD, Land Management Plan Amendment for the Tonto National Forest Exception 3 is justified by referring to a paper (Holzfeind et al. 2020) that specifically discusses Winch-Assist Harvesting, discussing how it’s different from cable logging. Winch-Assist Harvesting is never mentioned in the FEIS.

We don’t see an analysis of the effects of steep slope logging in the specialist reports except for the following in the Soils and Watershed Specialist Report:

Most soils in the ponderosa pine PNVs on slopes less than 40 percent are in satisfactory condition and have the ability to resist accelerated erosion due to high amounts of protective litter cover. Although most soils are rated satisfactory, nutrient cycling and water

movement are not optimal in dense stands that have high litter content and reduced vegetative ground cover (including those in FRCC 3). This is because fine root biomass associated with most understory vegetation (e.g., grasses and forbs) is not present. Fine root biomass improves soil condition in a variety of ways including: a) increased soil stability due to the ability of fine roots to bind soils and increase aggregation, b) improved water infiltration through increased macropore space and root channels that convey water vertically and laterally, and c) enhanced nutrient cycling as fine roots decompose and are consumed by soil organisms, d) moderation of soil surface temperature regimes, e) suitable plant-water relations conducive to establishment of additional vegetation. The amount of coarse woody debris is not quantified but maintenance of 5-7 tons per acre provides material that contributes long term nutrient supplies, surface roughness and habitat for soil meso and microfauna.

On strata with slopes greater than 40 percent (strata 4, 17, and 29) soils are either inherently unstable (strata 4) or are dominated by severe erosion hazard ratings (17 and 29). These soils are not suitable for mechanical tree harvesting unless machinery designed specifically for steep slope harvesting is used and identified design features and BMP's are effectively implemented during mechanical tree harvesting and prescribed fire.

Soils and Watershed Specialist Report at 59.

Historically, slopes of 40% have represented the steepness threshold at which timber harvesting was practiced. Slopes exceeding 40 percent tend to have the highest runoff velocities and therefore highest erosion and sediment delivery rates.

Watershed and Soils Specialist Report at 68.

Personal observations indicate where PJ Woodland canopy cover exceeds 40 percent, there is little to no herbaceous understory (regardless of grazing intensity) and soil condition is impaired due to erosion rates that exceed the rates of soil formation.

Soils and Watershed Specialist Report at 73.

There are design features but no specific analysis for the effects of steep slope logging is offered - all mechanical treatment appears to be lumped together as one treatment type despite the Forest Service noting that "These soils are not suitable for mechanical tree harvesting unless machinery designed specifically for steep slope harvesting is used and identified design features and BMP's are effectively implemented during mechanical tree harvesting and prescribed fire." Soils and Watershed Specialist Report at 59. The Forest Service needs to analyze the direct, indirect, and cumulative effects of steep slope logging, by various mechanical means. Only cable logging is mentioned in the FEIS; only winch-assisted logging is implied in the DROD. See, for example, Rim Country FEIS at 42, 115, 119, 131; DROD at 20. The Forest Service needs to provide peer reviewed research on the need for and effectiveness of steep slope (>40%) treatments for ameliorating fire risk.

No examples of successful treatments in AZ or SW are given, nor are there analyses of whether trees would grow back after steep slope treatments. The Soil and Watershed Resource Report (March 2022) communicates that post treatment regrowth is unlikely, saying that areas potentially suitable for “Use of specialized harvesting equipment” on slopes >40% have “inherently unstable” soils; “Natural regeneration potential is low,” “Soil erosion hazard is severe,” “Ultimately, sites cannot achieve sufficient cover due to severe erosion and soil loss inherent to the very steep slopes,” “Sites are not suitable for timber harvest because of steep slopes and severe erosion hazards without proper BMPs.” Soil and Watershed Resource Report (March 2022) at 147, 157-158.

This statement has no scientific justification at all: “Cable Operations Treatments Timber harvesting using cable harvesting equipment and techniques would have a much reduced impact to the hydrological and soils resources from a potential 15 to 20 percent detrimental soil disturbance to four percent based on numerous post soil disturbance surveys based on personal experience over the past twenty years over the western United States. The size of landings would be larger to accommodate full tree removal and based on site specific logistics such as using existing roads as temporary roads. The percentage of soil compaction would be greatly reduced due to ground based harvesting equipment would not be used.” Soil and Watershed Resource Report (March 2022) at 86. Statements such as these need to offer scientific references, or at least some examples of how similar treatments have responded over time in the same region under similar conditions. The western US is highly variable and no examples of where the “personal experience” was obtained were provided. If this is a new and experimental procedure for this region, it must be studied and tried at smaller scale prior to being written into a 2.7 million acre project with a project lifespan of 20 or more years.

While the 2019 Terrestrial Wildlife Specialist Report that accompanied the DEIS did not specifically mention cable logging, it did mention the proposed use of mechanical equipment on steep slopes. 2019 Terrestrial Wildlife Specialist Report at 10. The 2022 Terrestrial Wildlife Specialist Report does disclose that cable logging would occur but doesn’t disclose effects beyond an assumed restoration of habitat that would accompany a reduction of vegetation and reduction of fire risk. 2022 Terrestrial Wildlife Specialist Report at 33. The 2022 Terrestrial Wildlife Specialist Report does disclose the potential for >30,000 acres of cable logging in critical habitat, specifically within Mexican Spotted Owl habitat types, but does not disclose what other acreages could receive steep slope mechanical treatments. 2022 Terrestrial Wildlife Specialist Report at 64-66. Confusingly, three different tables offer three different acreage totals for what appears to be Alternative 2 Cable Operations in Mexican Spotted Owl Critical Habitat. 2022 Terrestrial Wildlife Specialist Report at 64-66.

The Draft ROD states, “Since 1985, specialized equipment has been developed that can cut and remove trees and mechanically treat other vegetation on steep slopes without adverse effects to soil and water resources (Holzfeind et al 2020).” Draft ROD at 20. In fact, nowhere in the

referenced paper, Holzfeind et al. 2020, is there a claim that the logging techniques discussed will have *no* adverse effects. The review paper does not reveal any information about the use of winch-assist technology in arid or semi-arid locations. The case study locations mentioned in the paper include New Zealand, Oregon, Canada, Brazil, Germany, Scandinavia, the Baltics, and Russia - and the paper discusses the application of winch-assist logging in places with frozen or wet ground. Holzfeind et al (2020) report environmental impacts reported in these places including soil compaction, soil displacement, rutting, soil loosening, stem breakage, and “Steep, long, continuous slopes... without vegetation cover” but do not specifically discuss aridland soils with thin topsoil layers or microbiotic crusts. Holzfeind et al. 2020 at 204-205. The paper points to increased safety, reduced costs, and impacts “similar to operations on gentle terrain or cable logging.” Holzfeind et al. 2020 at 1. However the paper discloses “many unknown social, environmental, and economic challenges and opportunities associated with the winchassist technology. More research is certainly warranted.” Holzfeind et al. 2020 at 1.

Holzfeind et al. 2020 is not a substitution for an actual analysis of the direct, indirect, and cumulative impacts of steep slope logging on the Apache-Sitgreaves, Tonto, and Coconino National Forests in Arizona. And the very limited discussion of cable logging in the Rim Country FEIS is not an adequate analysis of steep slope logging that might involve ground-based equipment.

The “Economic Efficiency Methodology” assumes that “The economic analysis assumes that forest products are harvested outside of protected activity centers (PACS) with mean slopes less than 40 percent.” Rim Country FEIS v2 at 69. This was carried over from the Rim Country DEIS at 282. How does the introduction of steep slope logging change the results of the “Economic Efficiency Methodology”?

The Draft ROD states, “The exception for treatment on steep slopes will ensure that implementation of the Rim Country Project will meet desired conditions on steeper slopes and allow for advances in technology into the future.” (ROD at 20) This is concerning because “technology into the future” is a vague catch-all term that introduces a large amount of uncertainty to project implementation. As we state above, the very limited discussion of cable logging in the Rim Country FEIS is not an adequate analysis of steep slope logging that might involve ground-based equipment or other methods, and the Forest Service needs to provide peer reviewed research on the need for and effectiveness of steep slope (>40%) treatments for ameliorating fire risk.

Also, while we appreciate the discussion of how canopy density interacts with wind to determine rate of fire spread, there is a glaring omission of a discussion of how increasing the rate of fire spread, particularly on steep slopes, could interfere with the ability to control fires and keep them to manageable sizes when necessary. Fire Ecology Specialist Report at 74, DEIS comments at 32. There may be a tradeoff between the ability to control fire intensity and the speed at which fires spread. If the goal is protection of WUI, critical habitats, and infrastructure,

slowing fire spread is a vital factor to consider prior to creating vertical corridors denuded of all vegetation.

The Exception 3 is a project-specific amendment, only to apply to the Rim Country project as analyzed in the 2020 FEIS and the direct, indirect, and cumulative effects analyzed within. The analysis of Substantive Requirements does not disclose the impacts to soils, long term impacts on regeneration or vegetative community composition, the scenic impacts of cable corridors, the potential for cable corridors to conduct fire or become colonized with fire-prone invasive exotic species. Rim Country FEIS v2 at 174-176. The compliance with 36 CFR 219.9 is equally lacking, as there is no consideration of the potential spread of fire-prone invasive exotic species, particularly on steep slopes and within cable corridors, nor is there any analysis of the potential for vegetation type conversions and soil erosion within cable corridors or other steep slope treatment areas. Rim Country FEIS v2 at 176-178. Erosion, deviations from scenic integrity, and noxious weed infestation are listed as “short-term” with no explanation of how or why they would not be long term negative impacts (Rim Country FEIS v2 at 178-179, 180).

The Biological Opinion (BO) contains more specific information about treatment acreages and locations, including overlap with critical habitats, that is missing from the Rim Country FEIS (i.e., BO at 130 and elsewhere). According to the BO, there would be cable yarding on 54,609 acres, denuding approximately 1,753 acres of steep slope forested acres, likely to include large trees and snags and having, “short- and long-term negative effects to aquatic species and habitats over time resulting in erosion and sedimentation, streambank damage, and reduced riparian vegetation cover and structure from selective removal or crushing by people or logs. We expect increased sediment delivery to streams and reduced riparian vegetation to occur in the short-term until ground cover reestablishes.” BO at 55-56. All mention of long term negative effects, or any negative effects at all, seems to be omitted from the Rim Country FEIS. By omitting all information about long term and negative effects from the FEIS, the Forest Service fails to give a hard look at the direct, indirect, and cumulative impacts of steep slope mechanical treatments.

Suggested Resolution: Steep slope treatment areas should have their own analyses as stand-alone projects. If they are to remain part of the Rim Country EIS, the Forest Service must provide a hard look analysis of the direct, indirect, and cumulative impacts of steep slope (slopes >40%) mechanical treatments on the resources within the Rim Country EIS Project Area. The Forest Service must show maps of where steep slope mechanical treatment operations will occur, and provide the total acreage of steep slopes to be mechanically treated, as well as the total acreage of steep slopes to be treated within designated critical habitats, Mexican Spotted Owl habitat types, adjacent to riparian and aquatic habitats, in Inventoried Roadless Areas, and within other special land designations. The analysis should include examples of cable logging and other mechanical treatments on steep (>40%) slopes in or near the Project Area (or in similar climatic and soil conditions), time since treatment, and: 1) the soil conditions and vegetation communities within cable corridors and treated slopes; 2) if those cable corridors

and/or steep slope treatments have burned since treatment, the burn severity within and adjacent to the cable corridors and/or treatment areas. If examples of steep slope logging cannot be found within the Project Area or in sufficient analogous locations, the Forest Service must analyze soil erosion potential, post-treatment tree regeneration potential, wildlife impacts, riparian and aquatic impacts, scenic impacts, and total acreage of areas to be completely cleared for cable operations. Do not approve Land Management Plan Amendment for the Tonto National Forest Exception 3 without a thorough review and disclosure of the consequences of the amendment. The Forest Service needs to provide peer reviewed research on the need for and effectiveness of steep slope (>40%) treatments for ameliorating fire risk.

8. The Forest Service Must Give a Hard Look at the Direct, Indirect, and Cumulative Impacts of Livestock Grazing

The 2022 Range Specialist Report and Rim Country FEIS (v1 at 85 to 89) fails to take a hard look at the interactions between grazing and forest restoration. The Range Specialist Report describes the impacts of project activities on livestock grazing and the impact of project activities on livestock forage. Range Specialist Report at 14. Although a third question is raised, it is not addressed in the Range Specialist Report that we can see: "Would livestock grazing affect the restoration of understory species?" Range Specialist Report at 14. A fourth question that we requested be addressed is largely dismissed: How will grazing affect the Forest Service's ability to meet its desired future conditions? 2020 comment letter at 16.

Our comment letters (DEIS comment on January 16, 2020 and Sierra Club scoping comment letter dated August 11, 2016, which we incorporate by reference here) both identified a number of references with requests that the Forest Service include those references in their analysis in order to give a true hard look at the cumulative impacts of grazing on the restoration of forest and aquatic/riparian systems, and interactions with climate change.

The Forest Service failed to address the following, and must add these topics to its Cumulative Effects analyses:

- "... c) Mention reduced competitive and reproductive capacities of native species in grazed areas, and that actions associated with grazing can spread exotic plant seed such as cheatgrass.
- d) Acknowledge that grazing and browsing contributes to aspen decline and is detrimental to aspen recruitment and survival.
- e) Discuss how grazing impacts springs and riparian areas, and has a negative interaction with off highway vehicle use
- f) Explain how future livestock management would differ from the past practices that helped lead to unhealthy forests in the first place
- g) Explain how monitoring will detect problems and what changes might be made to grazing...

i) Take a strong position suggesting what changes to grazing might be necessary to achieve a fully restored forest.

j) Cite the following sources. The science establishing an interaction between grazing, fire, understory health, and pine recruitment is well established and goes back over half a century. The following peer-reviewed literature contributes to the knowledge that cattle grazing can create effects counter to forest restoration efforts: Kerns et al. 2011³⁴ (which describes USDA research: “understory release from a long history of cattle grazing caused a greater degree of change than the initial reintroduction of fire.”), Bakker et al. 2010, Kimball and Schiffman 2003, Allen et al. 2002, Belsky and Blumenthal 1997, Cooper 1960, Madany and West 1983, Savage and Swetnam 1990, Arnold 1950.”

Sierra Club comment letter dated August 11, 2016.

Oddly, the Range Specialist Report refers to Alligator juniper and Gambel oak as ‘undesirable species’ while the Rim Country FEIS refers to Gambel oak as “recognized for its role in managing for ecological diversity and high quality wildlife habitat.” Range Specialist Report at 18 and Rim Country FEIS at 190.

It is true that some burned areas in Rim Country have high densities of alligator juniper and oak (i.e., Rim Country FEIS v1 at 48) but the Forest Service cannot ignore the role of livestock in encouraging juniper and oak sprouts (i.e., Harris et al. 2003, Soulé et al 2004, Bradley and Fleishman 2008).

Suggested Resolution: The Forest Service must provide a hard look at the interactions between grazing and forest restoration. Answer the following questions in the Range Specialist Report or in the body of the FEIS: Would livestock grazing affect the restoration of understory species?; How will grazing affect the Forest Service’s ability to meet its desired future conditions? Address questions above labelled c, d, e, f, g, i, and j. Analyze the potential role of livestock grazing in encouraging juniper and oak sprouting in forest openings left behind after fire and forest treatments.

9. Fencing Should Only be Used Where Absolutely Necessary; The Forest Service Should Acknowledge All Causes of Aspen Decline

The Forest Service will rely on approximately 200 miles of fencing and barriers to protect aspen, springs, streams, riparian areas, and rare plants from livestock and other ungulate grazing, browsing, and trampling. Draft ROD at 4. Fencing is expensive, difficult to maintain, unsightly, and blocks movement of many wildlife species that aren’t responsible for overgrazing and overbrowsing on aspen and wetland habitat types. The Forest Service must acknowledge that the lack of – or severely reduced populations of – top predators including wolves exacerbates the problem of overgrazing and overbrowsing on aspen, as does elk overpopulation. Suggested language, approved by stakeholders while developing the Large Tree Retention Strategy for the 2015 4FRI EIS: “Other factors contributing to gradual aspen decline over the past 140 years

include reduced regeneration due to browsing by livestock and introduced and native wild ungulates in the absence of natural predators like wolves.”

Fencing should only be used as a last resort to protect values at risk from grazing and browsing. The Forest Service instead should use jackstrawing or move stock tanks to deter grazing and browsing of aspen and riparian habitats. No water sources should be provided within a mile of aspen stands. Instead of providing new constructed waters, the focus should be on restoring and protecting natural water sources such as springs and seeps.

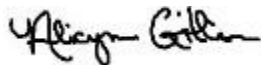
Suggested Resolution: The Forest Service should add language acknowledging that the absence or near absence of wolves is a major cause of aspen decline and set goals to remove fencing and barriers upon restoration of stable wolf populations.

CONCLUSION

We respectfully request an objection resolution meeting to discuss the suggested resolutions outlined above and to hear from the Forest Service about whether the agency might be amenable to changes to improve this draft decision.

Sincerely,

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