

**CENTER FOR BIOLOGICAL DIVERSITY
SAN JUAN CITIZENS ALLIANCE**

October 15, 2019

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Public Lands Center
15 Burnett Court
Durango, CO 81301
Via email: kara.chadwick@usda.gov; SM.FS.r02admin-rev@usda.gov

**Re: OBJECTIONS Pursuant to 36 C.F.R. § 218.8 to
Lone Pine Vegetation Management Project, Dolores Ranger District,
San Juan National Forest**

Dear Reviewing Office:

The Center for Biological Diversity (“the Center”) and San Juan Citizens Alliance (SJCA), collectively “Objectors,” hereby submit these objections to the San Juan National Forest’s draft Decision Notice (DN), Finding of No Significant Impact (FONSI) and final environmental assessment (Final EA) for the Lone Pine Vegetation Management Project.

Project Objected To

Pursuant to 36 C.F.R. § 218.8(d)(4), the Center objects to the following project:

Project: Lone Pine Vegetation Management Project, Dolores Ranger District,
Montezuma County, Colorado

Responsible Official and Forest/Ranger District: Derek Padilla, District Ranger, Dolores
Ranger District, San Juan National Forest

Timeliness

These objections are timely filed. Notice of the draft DN and FONSI was published in the Cortez Journal (the newspaper of record) on Friday, August 30, 2019.¹

We note that August 30 legal notice was defective because it falsely stated that “[t]he final EA FONSI, and draft DN are available on-line at: <https://www.fs.usda.gov/project/?project=54682>.”² The Final EA was *not* available on line at the time of publication, nor was it made available until

¹ See Public Notice, Cortez Journal (Aug. 30, 2019), attached as Ex. 1. The 45th day after the date of the August 30 notice falls on Monday, October 14, a federal holiday, and so the objection period expires at 11:59 PM Mountain time on the next business day, Tuesday October 15. See 36 C.F.R. § 218.6(a).

² Public Notice, Cortez Journal (Aug. 30, 2019), attached as Ex. 1.

the following day, after the undersigned notified the Forest Service of the defective notice.³ The Forest Service's defective notice renders its proposed decision invalid. Unless and until the Forest Service provides proper notice, and provides for a valid objection process, it cannot issue a final decision on the Lone Pine Project.

Lead Objector

As required by 36 C.F.R. § 218.8(d)(3), the Objectors designate the "Lead Objector" as follows:

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Interests and Participation of the Objectors

The Center for Biological Diversity is a non-profit environmental organization with over 61,000 members, and 1.6 million activist-supporters nationwide who value wilderness, biodiversity, old growth forests, and the threatened and endangered species which occur on America's spectacular public lands and waters. Center members and supporters use and enjoy the San Juan National Forest, and the lands of the Lone Pine Project area for recreation, photography, nature study, and spiritual renewal.

The Center for Biological Diversity believes that the welfare of human beings is deeply linked to nature — to the existence in our world of a vast diversity of wild animals and plants. Because diversity has intrinsic value, and because its loss impoverishes society, we work to secure a future for all species, great and small, hovering on the brink of extinction. We do so through science, law and creative media, with a focus on protecting the lands, forests, waters and climate that species need to survive. The Center has and continues to actively advocate for increased protections for species and their habitats in southwest Colorado and across the American Southwest.

San Juan Citizens Alliance is a non-profit organization with over 1,000 members in the Four Corners region. SJCA is actively involved in monitoring and scrutinizing National Forest management, overseeing government decision-making and compliance with environmental laws, advocating for cleaner air quality and better stewardship of natural systems, promoting reduced energy consumption, energy efficiency and renewable energy, and working for improvements to community health. SJCA members in the Four Corners region use and plan to use the federal lands in the Dolores District of the San Juan National Forest, including specifically the national forest lands included within Lone Pine project area. SJCA members are affected by the proposed project activities.

³ See letter of E. Zukoski, Center for Biological Diversity to D. Padilla, San Juan National Forest (Aug. 31, 2019), attached as Ex. 2.

I. THE FOREST SERVICE’S FAILURE TO EXPLAIN THE PROJECT’S SHIFTING PURPOSE AND NEED VIOLATES NEPA.

The Final EA states that the project’s purpose and need is to:

- Increase forest resiliency,
- Increase age class diversity,
- Promote recovery of forest vegetation,
- Reduce the risk of high severity wildfires, and
- Provide wood products for both commercial and non-commercial uses.⁴

The proposal involves sanitation/salvage, pre-commercial thinning, commercial thinning, single tree selection, oak thinning, reforestation, and pile burning on up to 36,810 acres – about 60 square miles – within fifteen “project areas,” and undisclosed treatments on up to 1,500 acres outside of the project areas but within the greater 66,719-acre Lone Pine analysis area “if changing conditions warrant.”⁵

The Revised EA further states that

the need for the proposed action is to manage forest vegetation to move current and foreseeable future conditions closer to desired conditions (DCs) on landscapes available for active management. Relevant desired conditions described in the 2013 San Juan National Forest Land and Resource Management Plan (LRMP) include: providing resilient terrestrial ecosystems (DC 2.2.9), having all development stages of ponderosa pine well represented at the landscape scale and occurring within specified ranges (DC 2.2.6), and meeting needs or demands for forest product offerings (DC 2.9.1).⁶

This purpose and need statement differs in several respects from that announced in the Initial EA, issued in February 2019. The Final EA does not address forest “restoration” as a goal, instead using the word “resilience,” and includes the goal of providing wood products to industry.⁷ The Final EA fails to explain how “restoration” and “resilience” might differ, given that restoring forests is generally understood to mean managing forests in a way that allows natural processes (including insect infestations and fire) to occur in a sustainable and natural

⁴ San Juan National Forest, Lone Pine Vegetation Management Project, Final Environmental Assessment (August 2019) at 4 (hereafter, “Final EA”).

⁵ Final EA at 1.

⁶ Final EA at 4.

⁷ Compare purpose and need statement in Initial EA (San Juan National Forest, Lone Pine Vegetation Management Project, Draft Environmental Assessment (Feb. 2019) at 7) with the Final EA at 4.

manner. The Final EA also cuts the project purpose to “effectively reduc[e] risk to life [and] property” from fire.⁸ The Center raised these issues in comments on the Revised EA, but the Final EA’s response – that “[t]he purpose and need was modified after a review of the comments received during the first public comment period” – fails to actually respond to substantively to the comment.⁹ Because the agency’s NEPA regulations require the agency to solicit and respond to public comments, the San Juan NF’s failure to respond to these comments violates NEPA.¹⁰

Suggested Remedy: The Forest Service must prepare a supplemental NEPA document to explain why it abandoned “restoration” as a goal, why the agency no longer includes property protection as a goal, and what impact these changes may have on proposed forest management.

II. THE FINAL EA VIOLATES NEPA BECAUSE IT FAILS TO DISCLOSE SITE-SPECIFIC IMPACTS.

A. NEPA Requires Agencies to Take a Hard Look at Site-Specific Impacts.

NEPA is ““our basic national charter for protection of the environment.””¹¹ In enacting NEPA, Congress recognized the “profound impact” of human activities, including “resource exploitation,” on the environment and declared a national policy “to create and maintain conditions under which man and nature can exist in productive harmony.”¹²

The statute has two fundamental two goals: “(1) to ensure that the agency will have detailed information on significant environmental impacts when it makes decisions; and (2) to guarantee that this information will be available to a larger audience.”¹³ “NEPA promotes its sweeping commitment to ‘prevent or eliminate damage to the environment and biosphere’ by focusing

⁸ Initial EA at 8.

⁹ Letter of E. Zukoski, Center for Biological Diversity to D. Padilla, San Juan National Forest (July 15, 2019) at 2-3 (“Center Revised EA Comments”), attached as Ex. 3; Final EA, Appendix D, at 2.

¹⁰ See 36 C.F.R. § 220.4(c)(2) (for each Forest Service proposal, Forest Service officials shall “[c]onsider[] environmental documents, public and agency comments (if any) on those documents, and agency responses to those comments.”).

¹¹ *Center for Biological Diversity v. United States Forest Serv.*, 349 F.3d 1157, 1166 (9th Cir. 2003) (quoting 40 C.F.R. § 1500.1).

¹² 42 U.S.C. § 4331(a).

¹³ *Env'tl. Prot. Info. Ctr. v. Blackwell*, 389 F. Supp. 2d 1174, 1184 (N.D. Cal. 2004) (quoting *Neighbors of Cuddy Mt. v. Alexander*, 303 F.3d 1059, 1063 (9th Cir. 2002)); see also *Earth Island v. United States Forest Serv.*, 351 F.3d 1291, 1300 (9th Cir. 2003) (“NEPA requires that a federal agency ‘consider every significant aspect of the environmental impact of a proposed action . . . [and] inform the public that it has indeed considered environmental concerns in its decision-making process.’”).

Government and public attention on the environmental effects of proposed agency action.”¹⁴ Stated more directly, NEPA’s “‘action-forcing’ procedures . . . require the [Forest Service] to take a ‘hard look’ at environmental consequences”¹⁵ *before* the agency approves an action. “By so focusing agency attention, NEPA ensures that the agency will not act on incomplete information, only to regret its decision after it is too late to correct.”¹⁶ To ensure that the agency has taken the required “hard look,” courts hold that the agency must utilize “public comment and the best available scientific information.”¹⁷

NEPA’s review obligations are more stringent and detailed at the project level, or “implementation stage,” given the nature of “individual site specific projects.”¹⁸ “[G]eneral statements about possible effects and some risk do not constitute a hard look, absent a justification regarding why more definitive information could not be provided.”¹⁹

NEPA requires site-specificity to fulfill two basic purposes: 1) to ensure agencies are making informed decisions prior to acting and 2) to ensure the public is given a meaningful opportunity to participate in those decision-making processes.²⁰ Federal courts apply these touchstone criteria when evaluating whether an EIS is adequately site-specific.²¹

¹⁴ *Marsh v. Or. Natural Res. Council*, 490 U.S. 360, 371 (1989) (quoting 42 U.S.C. § 4321).

¹⁵ *Metcalf v. Daley*, 214 F.3d 1135, 1141 (9th Cir. 2000) (quoting *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 348 (1989)).

¹⁶ *Marsh*, 490 U.S. at 371 (citation omitted).

¹⁷ *Biodiversity Cons. Alliance v. Jiron*, 762 F.3d 1036, 1086 (10th Cir. 2014) (internal citation omitted).

¹⁸ *Ecology Ctr., Inc. v. United States Forest Serv.*, 192 F.3d 922, 923 n.2 (9th Cir. 1999); *see also Friends of Yosemite Valley v. Norton*, 348 F.3d 789, 800-01 (9th Cir. 2003); *New Mexico ex rel. Richardson v. Bureau of Land Management*, 565 F.3d 683, 718-19 (10th Cir. 2009) (requiring site-specific NEPA analysis when no future NEPA process would occur); *Colo. Env’tl. Coal. v. Ofc. of Legacy Mgmt.*, 819 F. Supp. 2d 1193, 1209-10 (D. Colo. 2011) (requiring site-specific NEPA analysis even when future NEPA would occur because “environmental impacts were reasonably foreseeable”).

¹⁹ *Or. Natural Res. Council Fund v. Brong*, 492 F.3d 1120, 1134 (9th Cir. 2007) (citation omitted); *see also Or. Natural Res. Council Fund v. Goodman*, 505 F.3d 884, 892 (9th Cir. 2007) (holding the Forest Service’s failure to discuss the importance of maintaining a biological corridor violated NEPA, explaining that “[m]erely disclosing the existence of a biological corridor is inadequate” and that the agency must “meaningfully substantiate [its] finding”).

²⁰ *Stein v. Barton*, 740 F. Supp. 743, 749 (D. Alaska 1990).

²¹ *See WildEarth Guardians*, 790 F.3d at 921-25 (holding EIS inadequate for failure to disclose location of moose range); *Or. Nat. Desert Ass’n v. Rose*, 2019 WL 1855419 (9th Cir. 2019) (holding environmental analysis violated NEPA by failing to establish “the physical condition of [roads and trails] and authorizing activity without assessing the actual baseline conditions”).

Analyzing and disclosing site-specific impacts is critical because where (and when and how) activities occur on a landscape strongly determines the nature of the impact. As the Tenth Circuit Court of Appeals has explained, the actual “location of development greatly influences the likelihood and extent of habitat preservation. Disturbances on the same total surface area may produce wildly different impacts on plants and wildlife depending on the amount of contiguous habitat between them.”²² The Court used the example of “building a dirt road along the edge of an ecosystem” and “building a four-lane highway straight down the middle” to explain how those activities may have similar types of impacts, but the extent of those impacts – in particular on habitat disturbance – is different.²³ Indeed, “location, not merely total surface disturbance, affects habitat fragmentation,”²⁴ and therefore location data is critical to the site-specific analysis NEPA requires. Merely disclosing the existence of particular geographic or biological features is inadequate—agencies must discuss their importance and substantiate their findings as to the impacts.²⁵

Courts in the Ninth Circuit have taken a similar approach. For example, last month, the U.S. District Court for the District of Alaska issued a preliminary injunction in the case *Southeast Alaska Conservation Council v. U.S. Forest Service*, halting implementation of the Tongass National Forest’s Prince of Wales Landscape Level Analysis Project.²⁶ The court did so because the Forest Service’s failure to disclose the site-specific impacts of that logging proposal raised “serious questions” about whether that approach violated the National Environmental Policy Act (NEPA).

The district court explained the approach the Forest Service took in the Prince of Wales EIS:

each alternative considered in the EIS “describe[d] the conditions being targeted for treatments and what conditions cannot be exceeded in an area, or place[d] limits on the intensity of specific activities such as timber harvest.” But the EIS provides that “site-specific locations and methods will be determined during implementation based on defined conditions in the alternative selected in the . . . ROD . . . in conjunction with the . . . and Implementation Plan” The Forest Service has termed this approach “condition-based analysis.”²⁷

The Prince of Wales EIS made assumptions “in order to consider the ‘maximum effects’ of the Project.”²⁸ It also identified larger areas within which smaller areas of logging would later be

²² *New Mexico ex rel. Richardson*, 565 F.3d at 706.

²³ *Id.* at 707.

²⁴ *Id.*

²⁵ *Or. Natural Res. Council Fund v. Goodman*, 505 F.3d 884, 892 (9th Cir. 2007).

²⁶ *Southeast Alaska Conservation Council v. U.S. Forest Serv.*, Order Granting Motion for Preliminary Injunction, D. Ak. Case No. 1:19-cv-00006-SLG, Doc. 27 (Sep. 23, 2019) at 4 (citations omitted), attached as Ex. 4.

²⁷ *See id.* at 4 (citations omitted).

²⁸ *Id.* at 6.

identified, and approved the construction of 164 miles of road, but “did not identify the specific sites where the harvest or road construction would occur.”²⁹

The Court found the Forest Service’s approach contradicted Ninth Circuit precedent including *City of Tenakee Springs v. Block*, 778 F.2d 1402 (9th 1995), concerning logging on the Tongass National Forest. In *City of Tenakee Springs*, the appellate court set aside the Forest Service’s decision to authorize pre-logging in the Kadashan Watershed, without specifically evaluating where and when on approximately 750,000 acres it intended to authorize logging to occur. The district court evaluating the Prince of Wales project found the Forest Service’s approach was equivalent to the deficient analysis set aside in *City of Tenakee Springs*.

Plaintiffs argue that the Project EIS is similarly deficient and that by engaging in condition-based analysis, the Forest Service impermissibly limited the specificity of its environmental review. The EIS identified which areas within the roughly 1.8-million-acre project area could potentially be harvested over the Project’s 15-year period, but expressly left site-specific determinations for the future. For example, the selected alternative allows 23,269 acres of old-growth harvest, but does not specify where this will be located within the 48,140 acres of old growth identified as suitable for harvest in the project area. Similar to the EIS found inadequate in *City of Tenakee Springs*, the EIS here does not include a determination of when and where the 23,269 acres of old-growth harvest will occur. As a result, the EIS also does not provide specific information about the amount and location of actual road construction under each alternative, stating instead that “[t]he total road miles needed will be determined by the specific harvest units offered and the needed transportation network.”³⁰

The district court concluded that plaintiffs in the case raised “serious questions” about whether the Prince of Wales EIS condition-based management approach violated NEPA because “the Project EIS does not identify individual harvest units; by only identifying broad areas within which harvest may occur, it does not fully explain to the public how or where actual timber activities will affect localized habitats.”³¹ After finding the plaintiffs also met the other factors for preliminary injunction, the Court enjoined all logging until a decision on the merits.³²

NEPA further mandates that the agency provide the public “the underlying environmental data” from which the Forest Service develop[ed] its opinions and arrive[d] at its decisions.”³³ “The agency must explain the conclusions it has drawn from its chosen methodology, and the reasons

²⁹ *Id.*

³⁰ *Id.* at 16-17 (citations omitted).

³¹ *Id.* at 18, 20.

³² *Id.* at 22, 25.

³³ *WildEarth Guardians v. Mont. Snowmobile Ass’n*, 790 F.3d 920, 925 (9th Cir. 2015).

it considered the underlying evidence to be reliable.”³⁴ In the end, “vague and conclusory statements, without any supporting data, do not constitute a ‘hard look’ at the environmental consequences of the action as required by NEPA.”³⁵

CEQ’s regulations establish specific ways agencies must analyze proposed actions, including project-level decisions, including a detailed discussion of direct, indirect, and cumulative impacts and their significance; and an analysis of reasonable alternatives to the proposed action. Such analysis is required for both environmental assessments and EISs.

The Lone Pine project is a project-level decision.³⁶ As a result, any NEPA analysis must include the detailed information and analysis that NEPA and the CEQ regulations require because the Forest Service admits there will be no further NEPA analysis beyond the Final EA.

B. The Final EA Fails to Disclose the Lone Pine Project’s Site-Specific Direct and Indirect Effects, and Violates the San Juan National Forest Plan.

Although NEPA requires that analysis disclose specific information about the when, where, and how of any agency action, so that the impacts and alternatives can be described and weighed, the Final EA fails to contain much of this data. Instead, the Forest Service intends to postpone important components of site-specific project design and impacts analysis until *after* the NEPA process is complete. This upends NEPA’s central purpose that agencies look before they leap, just as the Court concluded in *Southeast Alaska Conservation Council*.³⁷

1. The Final EA Fails to Disclose the Project’s Impacts from Road and Skid Trail Construction and Use.

The Final EA fails to disclose the where and the how of up to 100 miles of new temporary road construction. While the Forest Service provides a map displaying the location of the *existing* road network likely to be used,³⁸ the Final EA contains only an estimate of the total miles of

³⁴ *N. Plains Res. Council, Inc. v. Surface Transp. Bd.*, 668 F.3d 1067, 1075 (9th Cir. 2011) (citation omitted).

³⁵ *Great Basin Mine Watch v. Hankins*, 456 F.3d 955, 973 (9th Cir. 2006); *see also Ocean Advocates v. Army Corps of Engineers*, 402 F.3d 846, 869 (9th Cir. 2004) (finding that a vague and uncertain analysis is insufficient to meet NEPA’s mandate).

³⁶ While the Final EA envisions further site-specific data collection, monitoring, and project design, it does not anticipate or describe any future NEPA analysis or public involvement consistent with that law.

³⁷ The Objectors raised the issues discussed in this section in comments on the Revised and Draft EA. *See* Center Revised EA Comments (Ex. 3) at 3-11; letter of J. Buickerood, San Juan Citizens Alliance to D. Padilla, San Juan National Forest (July 15, 2019) at 2, 3 (“SJCA Revised EA Comments”), attached as Ex. 5; letter of J. Buickerood, San Juan Citizens Alliance to D. Padilla, San Juan National Forest (Mar. 22, 2019) at 3-5 (“SJCA Initial EA Comments”), attached as Ex. 6.

³⁸ Final EA at 16, Figure 5.

temporary road to be constructed without providing any location data. The Final EA makes clear that site-specific road locations will be identified only *after* the NEPA process is complete and the decision to approve the project is signed:

The exact locations and lengths of temporary road segments will be determined through agreement between the Forest Service and timber purchaser, but it is estimated that 75-100 miles of temporary roads could be built in order to complete logging and hauling operations across the fifteen proposed project areas.³⁹

This estimate of temporary road mileage – 75–100 miles – is not only huge, but is up to twice as much as the Forest Service’s estimate of 50–75 miles, contained in the February 2019 Initial EA.⁴⁰ The Final EA does not disclose the methodology used to make this estimate. The only explanation for the increased estimate the Final EA provides is that “[a]dditional site specific analysis was done which resulted in a different estimate in the number of miles of temp road anticipated.”⁴¹ It is unclear why, if site-specific analysis was performed, the Forest Service failed to disclose that analysis to the public in the EA.

Because only raw mileage is provided, neither the public nor the decisionmaker can understand the impacts, whether they can be effectively mitigated, or what alternatives might be reviewed to lower road impacts. The range of the projected mileage is also large, making the scope of potential impacts uncertain.

Other statements in the Final EA concerning the location and on-the-ground impacts of roads are so vague as to add little to the public’s understanding of potential impacts.⁴² The Final EA does not address how wide the routes will be, the acreage of direct physical disturbance, precisely where routes will be located and how dense the resulting road network will be, or how far (besides “sufficiently far”) routes will be from streams.

The Forest Service’s response to this issue is to simply wave away as insignificant all impacts – without analysis as to road location. The Final EA states: “The analysis of impacts contained in

³⁹ Final EA at 18; *see also id.* at 56 (the “Summary of Proposed Transportation Plan” notes that review by agency specialists in hydrology, wildlife, and recreation concerning location of temporary roads will occur only after project approval). *See also* San Juan National Forest, Lone Pine Final EA, Appendix D, Lone Pine Vegetation Management Project Public Comment Summary (Aug. 30, 2019) at 18 (“The location of temp roads and skid trails will be finalized during the pre-implementation stage when a transportation plan is written.”); *id.* at 21 (same);

⁴⁰ Initial EA at 28.

⁴¹ Final EA, Appendix D, at 17.

⁴² *See, e.g.,* Final EA at 22 (“Temporary roads shall be held to the minimum feasible number, width and total length and shall be located sufficiently far from streams and other water bodies to minimize discharge into those waters except at necessary water crossings.”)

Chapter 3 did not find any significant impacts related to the proposed activities, including temporary roads.”⁴³

The Final EA’s assertion that the impacts of constructing up to 100 miles of road within a roughly 100-square-mile project area that includes steep drainages and erosive soils is not supported, and not credible in light of studies that contradict that assessment. The best available science shows that road construction – even for temporary roads – causes erosion, soil compaction, and other alterations in forest geomorphology and hydrology which can seriously impair water quality and aquatic species viability. Roads disturb and fragment wildlife habitat, altering species distribution, interfering with critical life functions such as feeding, breeding, and nesting, and resulting in loss of biodiversity. Roads facilitate increased human intrusion into sensitive areas, resulting in roadkill, poaching of rare plants and animals, human-ignited wildfires, introduction of exotic species, and damage to archaeological resources.⁴⁴ And these impacts are not temporary, even if the roads are labelled as such.⁴⁵ Thus, the nature and location of the road network to be used and constructed is critical to understanding this project’s impacts. However, the Final EA fails to define the location of road use and road construction, and omits other data important to understanding road impacts.

The Forest Service has long acknowledged that temporary roads can have significant impacts. In its analysis of the Roadless Area Conservation Rule – which generally barred the construction of both permanent and temporary roads – the agency stated:

Although only used for relatively short periods, temporary roads present most of the same risks posed by permanent roads, although some may be of shorter duration. Many of these roads are designed to lower standards than permanent roads, are typically not maintained to the same standards, and are associated with additional ground disturbance during their removal. . . . While temporary roads may be used for periods ranging up to ten years, and are then decommissioned, their short- and long-term effects can be extensive to terrestrial species and habitats.⁴⁶

⁴³ Final EA, Appendix D, at 17.

⁴⁴ For an overview on the impacts of roads, see, e.g., S. Trombulak & C. Frissell, Review of ecological effects of roads on terrestrial and aquatic communities, *Conservation Biology* 14:18-30 (2000), attached as Ex. 7; The Wilderness Society, Transportation Infrastructure and Access on National Forests and Grasslands: A Literature Review (May 2014), attached as Ex. 8; and Gucincki et al., *Forest Roads: A Synthesis of Scientific Information*, Forest Service General Technical Report PNW-GTR-509 (May 2001), attached as Ex. 9.

⁴⁵ See The Wilderness Society, Transportation Infrastructure and Access (Ex. 8) at Attachment 2, page 3.

⁴⁶ USDA Forest Service, Final Environmental Impact Statement, Roadless Area Conservation Rule (Nov. 2000) at 3-150, excerpts attached as Ex. 10. See also *id.* at 3-30 (“temporary roads are not designed or constructed to the same standards as classified roads and are not intended to be part of the National Forest System Transportation System. The results can be a higher risk of environmental impacts over the short run.”); *id.* at 3-164 (concluding that “[t]emporary roads

The Final EIS on the Roadless Rule also noted that “[t]he use of temporary roads may have the same long lasting and significant ecological effects as permanent roads, such as the introduction of nonnative vegetation and degradation of stream channels.”⁴⁷ Temporary “[s]kid roads and trails, log landings, and similar disturbances within the [timber] sale area are the main cause of soil erosion and can contribute up to 90% of the sediment generated by timber sale activity (Patric 1976; Swift 1988).”⁴⁸

The Roadless Rule Final EIS acknowledges that temporary road construction can cause increased risk of surface erosion and landslides, but that this varies widely and depends on local site characteristics.⁴⁹ But the Lone Pine Final EA cannot disclose “local site characteristics” because that document fails to identify the location of proposed temporary roads.

Because the Final EA failed to address or respond to its own expert conclusion in the Roadless Rule FEIS that temporary roads can and often do have significant impacts indistinguishable to those of permanent roads, the Forest Service violates NEPA.⁵⁰

The Final EA appears to assume that there can be no significant impacts because mitigation measures, design elements, and the closure of temporary roads years later will eliminate all effects.⁵¹ The Forest Service’s assumption is not supported by the record or sound science.

present most of the same risks posed by permanent roads” to rare plants, “although some [impacts] may be of shorter duration.”).

⁴⁷ *Id.* at 2-18.

⁴⁸ *Id.* at 3-45.

⁴⁹ *Id.* at 3-45.

⁵⁰ Courts will set aside a NEPA document where the agency fails to respond to scientific analysis that calls into question the agency’s assumptions or conclusions. *See High Country Conservation Advocates v. U.S. Forest Serv.*, 52 F. Supp. 3d 1174, 1198 (D. Colo. 2014) (vacating Forest Service decision in part because the agency failed to respond to expert report that contradicted agency assumptions); *Ctr. for Biological Diversity v. U.S. Forest Serv.*, 349 F.3d 1157, 1168 (9th Cir. 2003) (finding Forest Service’s failure to disclose and respond to evidence and opinions challenging EIS’s scientific assumptions violated NEPA); *Seattle Audubon Soc’y v. Moseley*, 798 F. Supp. 1473, 1482 (W.D. Wash. 1992) (“The agency’s explanation is insufficient under NEPA – not because experts disagree, but because the FEIS lacks reasoned discussion of major scientific objections.”), *aff’d sub nom. Seattle Audubon Soc’y v. Espy*, 998 F.2d 699, 704 (9th Cir. 1993) (“[i]t would not further NEPA’s aims for environmental protection to allow the Forest Service to ignore reputable scientific criticisms that have surfaced”).

⁵¹ The Revised EA appeared to admit that temporary roads could have impacts that design elements would not mitigate. The Revised EA left open the possibility for the Forest Service to attempt to require un-named and un-described measures to address such impacts after the NEPA process is complete. “At this point, district resource specialists will verify if design elements are adequate, and can recommend additional or more stringent design elements where needed to

For example, the Final EA states that “[w]hen constructing temporary roads, excessive cut/fill slopes shall be avoided.”⁵² But the Final EA provides no information as to where cut/fill might be used, and what “excessive” means, nor does the Final EA respond to the Center’s comments raising this issue. The Forest Service’s lack of site-specific disclosure makes it impossible to understand the number, location, or impacts of cut/fill slopes, and whether or how any such construction will be “avoided.” This failure violates NEPA’s hard look requirement.

The Forest Service admits that “erosion is expected to occur as a result of temporary road construction and some sediment delivery to streams is expected at stream crossings.”⁵³ But the agency concludes that the impacts of temporary road construction and use will not be significant because the agency will adopt design elements, including one requiring that temporary roads be obliterated and closed within 5 years after “final use.”⁵⁴ The Final EA states that damage to water quality from erosion and sedimentation is “expected to be short-term (less than 3 years)” in part because temporary roads will be obliterated five years after use.⁵⁵ Further, “[r]oad density as it relates to water quality and watershed health will not change because no new permanent roads are proposed.”⁵⁶ The Forest Service reaches that conclusion by assuming that temporary roads do not impact road density.⁵⁷

However, it is arbitrary for the Forest Service to assume that impacts will be “short-term” when temporary roads may be open for far longer than 3 years. For example, the Final EA assumes that logging in the Wolf Den Plantation will be implemented over an 11-year period, meaning that temporary roads in the area could be open for 5 years beyond that, or 16 years – longer than

ensure that impacts remain consistent with those disclosed in this EA, or to address locally unique conditions.” Revised EA at 74. The Final EA omitted this statement without explanation.

⁵² Final EA at 23.

⁵³ Final EA, Appendix D at 19.

⁵⁴ See Final EA at 18 (“Temporary roads will be decommissioned, obliterated (by recontouring and reseeded), and permanently obstructed within five years after final use.”); *id.* at 22 (“All temporary roads will be obliterated and seeded upon completion of use.”). See also Forest Service, Lone Pine Vegetation Management Project Draft Decision Notice & Finding of No Significant Impact (Aug. 2019) at 6 (“Temporary roads will be decommissioned, obliterated (by recontouring and reseeded), and permanently obstructed within five years after final use.”) (“Draft DN/FONSI”). The Forest Service makes clear that while road closure may occur sooner than five years, that’s only a possibility. Final EA, Appendix D at 19 (stating that it is “*likely* that *some* roads will be decommissioned sooner than five years.”) (emphasis added).

⁵⁵ Final EA at 35, 36.

⁵⁶ Final EA at 33.

⁵⁷ Final EA, Appendix D at 18 (“Temporary roads are not included in the calculation of road density.”).

the statutory life of a Forest Plan.⁵⁸ Narraguinnep Plantations thinning will take 7 years to implement, so temporary roads there could be open for 12 years.⁵⁹ Wolf Den commercial thinning and Lake Canyon commercial thinning are anticipated to take 6 years each to implement, meaning that temporary roads there could be open for 11 years.⁶⁰ By the Final EA's own definition, temporary roads in these four project areas, encompassing more than 14,000 acres, could be "long term" because the roads could be open for logging-related vehicle use for more than 10 years.⁶¹ Because the Forest Service does not disclose where these roads will be or how long they will be open, or whether the road density including temporary roads will exceed Forest Plan limits, the agency fails to take the hard look at the impacts of road construction.

The Forest Service's assertion that temporary roads are not included in road density also contradicts San Juan Forest Plan guidance at least two ways. First, the Forest Plan contains a "Road Density Guideline for Water Quality and Watershed Health."⁶² Pursuant to that guideline, road density calculations include all roads except maintenance level 1 roads and "[t]emporary roads to be used for 5 years or less."⁶³ The Lone Pine Final EA *does not limit temporary road use to less than 5 years*. As noted above, the Forest Service estimates logging will occur over a 6-year period or longer in at least four project areas, encompassing more than a third of all Lone Pine logging acreage. Thus some temporary roads within the project area will likely be open for the life of each project – longer than 5 years.

The Forest Service therefore must prepare a road density analysis that includes temporary roads for the Lone Pine project. Because the Plan-mandated road density analysis addresses impacts by sixth-level watershed, the Forest Service must also identify the location of temporary roads. Failure to complete a road density analysis that includes temporary roads for the Lone Pine project will violate the Forest Plan, and the National Forest Management Act (NFMA).

Second, the Forest Plan also contains road density guidelines for the protection of wildlife habitat, including elk production areas.⁶⁴ "Habitat effectiveness for this guideline is considered maintained when road densities within the CPW mapped areas on SJNF lands listed below are

⁵⁸ Final EA at 14, Table 1 (noting Wolf Den Plantations implementation anticipated to occur from 2019 through 2029). *See also* 16 U.S.C. § 1604(f)(5) (Forest Plans shall be revised "at least every fifteen years").

⁵⁹ Final EA at 14, Table 1 (noting Narraguinnep Plantations thinning implementation anticipated to occur from 2023 through 2029).

⁶⁰ Final EA at 14, Table 1 (noting Wolf Den commercial thinning implementation anticipated to occur from 2023 through 2028; Lake Canyon commercial thinning implementation anticipated to occur from 2020 through 2025).

⁶¹ Final EA at 26 (temporal scale used for long-term effects is longer than 10 years).

⁶² San Juan National Forest Land and Resource Management Plan (Sep. 2013) at 2.13.27, page 102 ("San Juan Forest Plan").

⁶³ *Id.*

⁶⁴ *Id.* at 2.13.29, page 103.

less than or equal to 1 mile/square mile.”⁶⁵ This guideline also directs that road density calculations include all roads except maintenance level 1 roads and “[t]emporary roads to be used for 5 years or less.”⁶⁶ Again, because the Lone Pine EA does not prohibit the use of temporary roads for longer than 5 years, it must identify temporary road locations within elk production areas and include those within its road density calculation. Otherwise, the Lone Pine Final EA will violate the Forest Plan and NFMA.

Such analysis is particularly important because Forest Service documents show road density in some watersheds are currently perilously close to the 1 mile/square mile trigger. The Forest Service found road density in Narraguinnep Canyon watershed is 0.99 miles per square mile and in Pine Arroyo is 0.96 miles per square mile.⁶⁷ While we understand that the Forest Plan does not measure road density concerning elk production areas by watershed, the Forest Service did not make available to the public any other road density data. What data the agency did provide indicates the agency must prepare an analysis of road density impacts on wildlife pursuant to the Forest Plan that includes the impacts of “temporary roads.”

Further, the width of new roads – which defines the level of direct habitat destruction from bulldozing – is not defined, and the Final EA provides little guidance as to when, if ever, widths might be restricted, again making it impossible for the public or the agency to know the extent of project impacts.⁶⁸

The Final EA fails to disclose needed and useful information concerning the impacts of skid trails, which can have many of the same impacts as roads. The Final EA states that “[s]kid trails will be held to the minimum number, width, and length,” and that “design elements . . . will minimize negative impacts of skid trails.”⁶⁹ This provides neither the public nor the decisionmaker with any useful information as to the number, length, or scope of potential impacts from such trails, which will crush vegetation, cause a loss of habitat, and compact soil, among other impacts. The Final EA’s statement that “sustained slopes greater than 40%

⁶⁵ *Id.*

⁶⁶ *Id.*

⁶⁷ See San Juan National Forest, Lone Pine Vegetation Management Plan, Hydrology and Soils Report (2019?), excerpts attached as Ex. 11.

⁶⁸ See Final EA at 23-24 (Forest Service and the purchaser/contractor shall agree upon locations and clearing widths of temporary roads). The Forest Service’s only response concerning the EA’s failure to address the width of roads is the analysis-free conclusion that the agency “did not find any significant impacts related to the proposed activities, including temporary roads.” Final EA, Appendix D, at 17. Clearly, if road width were to be 1,000 feet, impacts would be hugely significant. Thus, the Forest Service must be making some assumption about road width, assumptions it never shares with the public.

⁶⁹ Final EA at 23; Final EA, Appendix D at 18.

compris[e] less than 2% of the analysis area,” similarly does not explain where these slopes are and whether they are likely to be impacted by roads or skid trails.⁷⁰

The Final EA cannot take the required hard look at the impacts of temporary roads because it fails to disclose not only the location of these roads but also of the values that could be impacted by road construction and use. For example, the Final EA fails to define the “where” of sensitive soil resources. While the Initial EA contains a map of “soils prone to mass movement,” the Revised and Final EAs removed this map completely, replacing it with a statement that deprives the public of any understanding of the location of these sensitive landscape (i.e., lands “prone to mass movement comprise approximately 18% of the project area.”).⁷¹ While the Final EA promises that the Forest Service will “[l]imit equipment operations to sustained slopes less than 40 percent,”⁷² it does not disclose the location of any such slopes in the project area, so that the public and decisionmaker can understand whether this design feature will have any teeth. It is also possible that this and other measures (buffers for riparian areas, e.g.) will cause road density to be increased in certain areas as the agency places roads to avoid sensitive resources. Without site-specific information, however, the public and decision-maker cannot understand the potential for such impacts.

With respect to wildlife, the Final EA contains no maps showing the location of habitat for any species apart from elk, and no analysis of the relative value of such habitat, or where such habitat may be impacted by logging, road construction, road use, or fire. This makes it impossible for the public or the agency to understand impacts, or to evaluate whether an alternative to avoid certain areas could be crafted.

In short, specific road construction plans will be designed *after* project approval, and only then will the Forest Service gather site-specific information necessary to understand the project’s impacts and attempt to mitigate them. This gets NEPA compliance backwards. NEPA mandates that agencies look before they leap. Because the Forest Service fails to take the hard look NEPA requires, the Final EA violates NEPA.

2. The Final EA Fails to Disclose the Impacts from Logging Outside Defined Project Areas.

The Final EA fails to describe the “where,” “when,” “how,” or “why” of an entire category of potential treatments: those occurring outside the 36,810 acres mapped for treatment. The Revised EA stated that “[t]he proposed action . . . allows for treatment outside of these [15] project areas if changing conditions warrant.”⁷³ The Final EA modifies that proposal to authorize “treatment

⁷⁰ Final EA at 31.

⁷¹ Final EA at 33. Because the Forest Service removed the Initial EA from its website, it cannot rely on this superseded document to disclose impacts to the public.

⁷² Final EA at 21.

⁷³ Revised EA at 11.

on up to 1,500 acres outside of these project areas if changing conditions warrant such action.”⁷⁴ The Final EA further explains:

Any treatment conducted outside of the fifteen project areas must be consistent with the treatments described in this EA, and the pre-implementation review of the treatment must show that effects will be consistent with effects described in this EA and that the design elements listed . . . are adequate to keep impacts within those analyzed in this EA.⁷⁵

The Final EA nowhere describes precisely what “changing conditions” might warrant such treatments, thus leaving the door open for the Forest Service to undertake any treatment, anywhere, for any reason, within the 66,000+ acre project area. This treats as interchangeable and identical all parts of the 100-square mile project area. As long as a few “design elements” are complied with, the specific nature of the forest – its aspect, stand conditions, slope, wildlife use, juxtaposition to other habitats, or any other characteristic – is irrelevant to whether and how it can be logged. This approach violates NEPA’s command that agencies take the hard look at an action’s direct, indirect, and cumulative impacts.

Further, it does not appear that the Final EA disclosed or estimated impacts from these additional treatments. For example, the estimate that the proposed action would require 75-100 miles of road does not appear to include any additional road construction that may be necessary to access these outside units. Nor does it appear that the Forest Service has engaged in a “worst case scenario” analysis to ensure that wherever these treatment areas are that impacts will certainly not have even the potential for significant impacts. By failing to disclose the impacts of this additional logging, the Forest Service violates NEPA’s hard look dictate.

3. The Final EA Fails to Disclose the Impacts of Treatments that Can Occur Anywhere.

The Final EA indicates that certain treatments – sanitation/salvage, oak thinning, and slash and pile burning – can occur anywhere within any of the project units.⁷⁶ Because the Final EA does not disclose the extent of these treatments, it is thus impossible for the public or the decisionmaker to understand the impacts of these actions, violating NEPA. The Forest Service

⁷⁴ Final EA at 1.

⁷⁵ Final EA at 20.

⁷⁶ See Final EA at 12 (“sanitation/salvage treatments may be applied in *any* of the project areas mapped in Figure 4, and because of their small size and scattered nature, *no acreage estimates are given*, and this treatment has not been individually mapped.”) (emphasis added); *id.* at 17 (“Oak thinning may be used where pine regeneration is inhibited by dense Gambel oak with the intent of creating openings where pine may be more likely to regenerate.... Oak thinning may occur *in any of the project areas mapped in Figure 4.*”) (emphasis added); *id.* (slash and pile burning locations not disclosed or limited).

responds that the Final EA discloses the impacts of all treatments collectively, and that design elements will be imposed.⁷⁷ This does not address the criticism at all, a further NEPA violation.

4. The Final EA Fails to Disclose Where within Project Areas Treatments Will Not Occur Anywhere.

The Final EA notes that it will design treatments to avoid certain areas (*e.g.* water influence zones). Avoiding some areas means concentrating logging damage in remaining areas. Because the Final EA fails to disclose *where* most of these values may exist that vegetation treatments are designed to protect or avoid, neither the public nor the decision-maker can understand the impact to the environment of these avoidance measures.

The Forest Service states that “design elements . . . will minimize or eliminate potential adverse effects to many resources including, but not limited to: historic properties, areas with existing pine regeneration, water influence zones (WIZ), riparian areas, ephemeral and intermittent streams, steep slopes, shale soils, saturated soils, wetlands, wet meadows, drainages, range improvements, elk production areas, northern goshawk nest areas, and wildlife exclosures.”⁷⁸ But with the exception of elk production areas, almost none of these areas are identified on maps, nor is the extent of these areas described or quantified. This failure to disclose where logging *will not* take place, thus confining where logging *will* take place, violates NEPA.

5. The Final EA Fails to Disclose Impacts to “Natural Landscapes.”

“Approximately 10% of the [project] area,” and two of the individual project areas (Wolf Den Plantation and Wolf Den), overlap lands within management area 3 (natural landscapes with limited management).⁷⁹ “These are lands that are relatively unaltered places where natural ecological processes operate primarily free from human influences. Natural processes and disturbance events predominantly shape the composition, structure, and landscape patterns of the vegetation. Timber production is prohibited, but timber harvesting as a tool is allowable.”⁸⁰ While logging may be permitted in “natural landscapes,” that does not mean that logging and the construction and/or use of roads, skid trails, and landings will not have impacts on the naturalness of these landscapes. Despite identifying the location of management area 3 lands, the Final EA contains no discussion of their unique values, nor does it address the potential for the proposed action to impact those unique and defined natural values.

The Forest Service responded to the Center’s comments on this issue by stating that “[t]he additional requested detail was not provided” because “the proposed action [is] consistent with the allowable uses described in the San Juan National Forest LRMP.”⁸¹ This response violates NEPA. NFMA mandates that every use of the San Juan National Forest must be consistent with

⁷⁷ Final EA, Appendix D at 5.

⁷⁸ Final EA, Appendix D at 4-5.

⁷⁹ Final EA at 5.

⁸⁰ Final EA at 5.

⁸¹ Final EA, Appendix D at 2.

the Forest Plan.⁸² The Forest Plan does not bar the agency from approving major federal actions that may significantly harm the environment, and NEPA requires the Forest Service to take a hard look at impacts. To the extent that bulldozing roads, flattening forests, and burning massive slash piles may impact “relatively unaltered places where natural ecological processes operate primarily free from human influences,” those impacts must be disclosed. The Forest Plan designated landscapes as management area 3 because of the lands were “relatively unaltered” and such natural values may be degraded despite the fact that management area direction does not prohibit damaging projects. The Forest Service’s failure to disclose those impacts violates NEPA.

Suggested Remedy: The Forest Service must prepare a supplemental NEPA document to disclose the site-specific location, and impact, of temporary road construction, logging treatments both inside and outside the 15 “project areas,” and other actions, including impacts to natural landscapes.

C. The Final EA Fails to Disclose the Project Area’s Baseline Conditions.

The Revised EA’s failure to disclose the where and the how of the project also results in a failure to comply with another NEPA requirement: the mandate that agencies “succinctly describe the environment of the area(s) to be affected or created by the alternative under consideration.”⁸³ NEPA also requires the action agency to set an appropriate baseline detailing the nature and extent of the resources in the area: “The concept of a baseline against which to compare predictions of the effects of the proposed action and reasonable alternatives is critical to the NEPA process.”⁸⁴ “Without establishing . . . baseline conditions . . . there is simply no way to determine what effect [an action] will have on the environment and, consequently, no way to comply with NEPA.”⁸⁵

Without baseline data, neither the public nor the agency can understand the effects of the proposed action or craft and analyze alternatives and mitigation measures to protect these values. As such, the Forest Service has a duty to identify the environmental baseline and affected environment, as well as the scope of impacts and where those impacts are most likely to be felt.

The Final EA fails disclose significant information about existing forest conditions. For example, the EA fails to provide the public or the decisionmaker with information concerning the location of forest stands impacted by various insect infestations. The Final EA provides a narrative description of the acreage of lands impacted, and the rate of the beetle infestation over time, but little more.⁸⁶ The location and type of treatments, and their impact on the forest, could be

⁸² 16 U.S.C. § 1604(i).

⁸³ 40 C.F.R. § 1502.15.

⁸⁴ See Council on Environmental Quality, *Considering Cumulative Effects under the National Environmental Policy Act* 41 (January 1997).

⁸⁵ *Half Moon Bay Fishermans’ Mktg. Ass’n v. Carlucci*, 857 F.2d 505, 510 (9th Cir. 1988).

⁸⁶ See Final EA at 2, 24 (discussing aerial survey data).

significantly influenced by beetle activity, as the Final EA repeatedly admits.⁸⁷ But the Revised EA fails to provide maps detailing the juxtaposition of treatment units and the infestations. The Forest Service does not disclose the “where” of these infestations.

The Final EA also fails to contain site-specific information on a variety of other resources, including wildlife and wetlands, among other resources.

The Final EA fails to include maps showing existing stand information such as basal area, which the project would reduce, and existing developmental stage, which the Forest Service intends to use in part to indicate age class diversity. The Forest Service could have disclosed by stand the percentage of trees above several potential size limits (e.g., 16” diameter at breast height (DBH), 20” DBH, and 28” DBH) so that the public and the decisionmaker could understand the distribution of old and large trees. The Forest Service could have generated such maps based on existing stand data.

The Final EA provides a one-sentence response to the Center’s comments on this issue: “The Forest Service modified the EA to provide additional information regarding baseline conditions.”⁸⁸ The agency does not say what information it added or where. What information the Final EA did provide failed to address the omissions discussed above.

The agency’s failure to disclose this information to the public violates NEPA’s hard look mandate and the requirement that agencies disclose baseline conditions.

Further, even where the EA contains baseline data, some of that data is incorrect, and results in a failure to ensure that the action will have no significant impacts. For example, the Final EA relies on population trend data for elk that is 15 years old and apparently inaccurate. The EA states “Current habitat trends for elk on the San Juan National Forest are slightly downward, with a stable population trend (USDAFS, 2004).”⁸⁹ And while the BA/BE contains more recent data, that data is also neither recent nor accurate when it states that as of 2015, the elk herd “has continued to increase and may now exceed 19,000” in the relevant data analysis unit (E-24), leading the Forest Service to conclude that “currently we are meeting State population objectives.”⁹⁰

But according to data obtained from CPW this month, the Forest Service’s assertions that elk population in the area is stable and meeting population objectives are not accurate now. CPW’s analysis of the most recent post-hunt data (from 2018) shows that the elk population in data

⁸⁷ See Final EA at 27 (“The effects of the no action alternative and proposed action are strongly dependent on how the current bark beetle epidemic progresses.”).

⁸⁸ Final EA, Appendix D at 2.

⁸⁹ Final EA at 42.

⁹⁰ San Juan National Forest, Lone Pine Vegetation Project, Draft Biological Evaluation/Biological Assessment (April 8, 2019) at 23, 24, excerpts attached as Ex. 12.

analysis unit E-24 “is *decreasing*” and “is now *below our population management objective*.”⁹¹ CPW’s Brad Weinmeister, who provided the data upon request to San Juan Citizens Alliance, stated “We really don’t know what is causing” a lack of recruitment to the elk population “and [we] currently have a research project to try to get some answers.”⁹² Mr. Weinmeister provided the following graph depicting elk population, showing a generally downward trend since 2004.

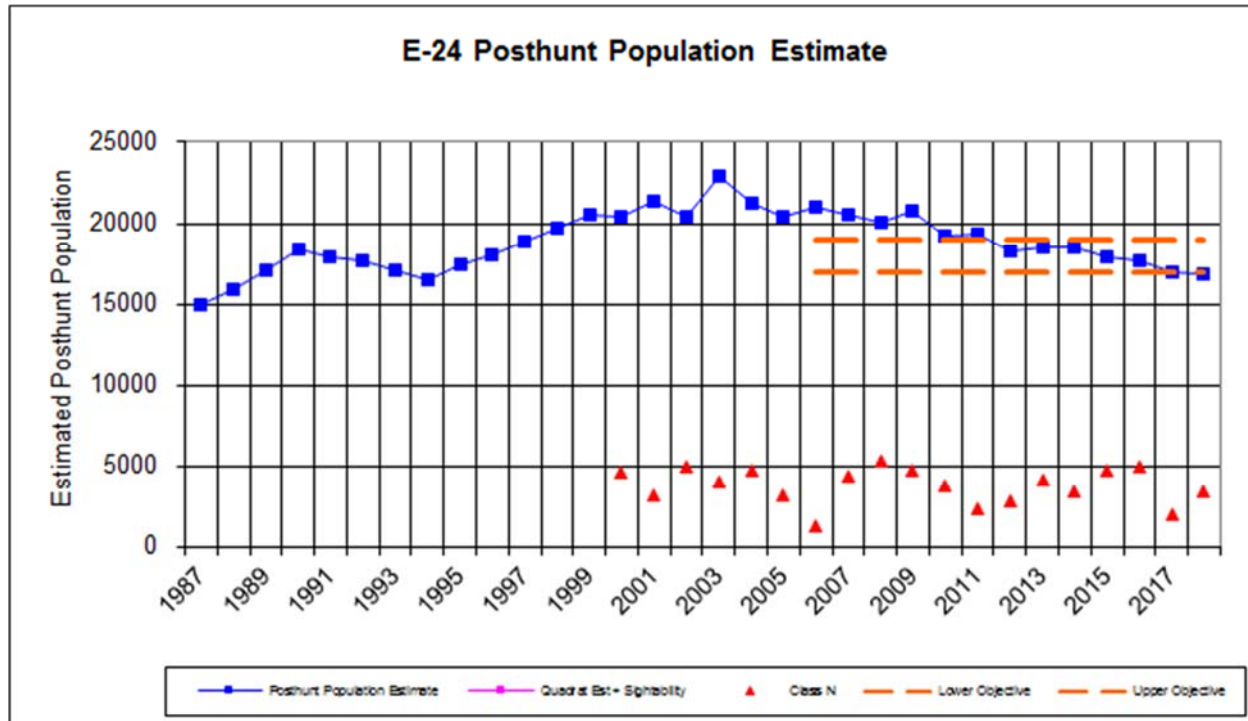


Table from email of B. Weinmeister, attached as Ex. 13.

This current downward trend for elk population in the project area is important because the Lone Pine project will likely further harm elk by causing “temporary displacement” over an 11-year period or longer.⁹³ The Final EA promises that “adaptive management steps that require discussion with Colorado Parks and Wildlife [will occur] if downward population trends are observed.”⁹⁴ But those trends are *already* occurring. The Forest Service’s failure to acknowledge and address this downward trend, and to modify the project accordingly, violates NEPA’s hard look mandate and the agency’s duty to disclose baseline conditions.

⁹¹ Email of B. Weinmeister, CPW to B. Magee, DNR (Oct. 8, 2019) (emphasis added), attached as Ex. 13.

⁹² *Id.*

⁹³ Final EA at 44.

⁹⁴ Final EA at 44. *See also id.* at 61 (stating that if downward population trends are monitored, the Forest Service will “[w]ork with CPW to determine [the] cause of [the] downward population trend,” and provided for project modifications, but only “[i]f [the] downward trend is determined to be a result of impacts to production habitat.”).

Suggested Remedy: The Forest Service must prepare a supplemental NEPA document that discloses the baseline conditions within the Lone Pine Project area, including but not limited to the location and extent of stands impacted by beetles, and that is based on the most recent information concerning elk populations, including that such populations are below objective levels and on a downward trend.

D. The Final EA Fails to Disclose Meaningful Information about the Cumulative Effects of Off-Road Vehicle Travel.

The Final EA lacks the necessary detail of the potential cumulative effects of the Lone Pine project when viewed together with a foreseeable action – off-road vehicle travel – that is likely to have significant impacts.⁹⁵

In the vast majority of the project area, which the Forest Service admits is popular with recreationists,⁹⁶ individuals may drive off-highway vehicles up to *one mile* from Forest Service roads to retrieve game, according to the motor vehicle use map for the Dolores Ranger District.⁹⁷ Full-sized vehicles may also travel up to 300 feet from either side of nearly every open road within the project area for dispersed camping.⁹⁸ This means the off-road vehicle travel can legally occur on virtually every acre of the 36,810-acre area open to logging by the Lone Pine project decision, a fact not even mentioned in the Final EA. Such vehicle use will be allowed within the project areas after logging and/or burning occur, and thus will likely hinder reforestation, compound damage to soils and watersheds, crush seedlings, render temporary road closures and obliteration less effective, and increase the potential for the spread of exotic weeds.

As one study concluded:

Riding a several hundred pound ORV off-route or cross-country can crush, break, and ultimately reduce overall vegetative cover. Vehicular impacts on vegetation range from selective kill-off of the most sensitive plants to complete loss of vegetation in large “staging areas.” Plants that do survive are weakened,

⁹⁵ The Center raised this issue in their comments. See letter of E. Zukoski, Center for Biological Diversity to T. Bruch, San Juan National Forest (Mar. 24, 2019) at 12 (“Center Initial EA Comments”), attached as Ex. 14; Center Revised EA Comments (Ex. 3) at 12-13.

⁹⁶ See Final EA at 70 (“The analysis area supports moderate to high levels of non-motorized and motorized recreation in the summer and during big game hunting seasons.”).

⁹⁷ San Juan National Forest, Motor Vehicle Use Map, Dolores Ranger District, Side 2 - Game Retrieval Area (June 1, 2019), available at https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd492998.pdf (last viewed Oct. 15, 2019), and attached as Ex. 15.

⁹⁸ San Juan National Forest, Motor Vehicle Use Map, Dolores Ranger District (June 1, 2019), available at https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd493002.pdf (last viewed Oct. 15, 2019), and attached as Ex. 16.

malformed, and more susceptible to disease and insect predation. Trampling by ORVs can also damage germinating seeds – even those in the soil.⁹⁹

These impacts will be multiplied and more severe where they involve full-sized vehicle travel, such as half-ton pickups with trailers, pioneering campsites hundreds of feet off roads for campsites within recently logged or burned areas, as San Juan National Forest travel regulations permit across most of the Lone Pine project area.

The Final EA does not take a hard look – or indeed any look – at the potential for these significant adverse impacts that will undercut the project’s goals. While the EA predicts “increasing amounts of recreation use,” it does not specifically address off-road vehicle use for camping and game retrieval use as a foreseeable future activity in terms of damaging impacts to forests, and lumps recreation use with other actions that it predicts, without support, will “produce beneficial cumulative effect for vegetation within the analysis area.”¹⁰⁰ The Forest Service provides no basis for concluding that increasing off-road vehicle use throughout a recently logged landscape where the Forest hopes to see new growth will “benefit vegetation.” Such a conclusion is arbitrary and capricious, and contrary to science and common sense.

With respect to impacts on wildlife, the Final EA mentions “legal, off-road vehicle travel” as having the potential for cumulative effects, but alleges that “design elements and project-specific review . . . will minimize or eliminate potential adverse effects during implementation.”¹⁰¹ However, the Final EA contains *zero* measures designed to address or restrict off-road vehicle use within recently-cut or burned areas, rendering the EA’s statement inaccurate. Virtually all of the design elements limit actions by the logging contractor, but not the public. So while design elements limit the use of logging vehicles on steep slopes, and attempt to limit the spread of exotic weeds, the design elements fail to place similar limits on public off-road travel once logging is complete.

The Forest Service does not consider mitigation measures that would limit or bar off-road camping or game retrieval in recently logged or burned areas to assist with reforestation. Failure to consider such mitigation also violates NEPA.

The Forest Service cannot argue that a prior NEPA document (the Oct. 2011 Boggy-Glade transportation plan) addresses these impacts.¹⁰² That nearly eight-year-old EA did not take into consideration the Lone Pine project with its more than a decade of logging, the up-to-100 miles of temporary road, or the beetle infestation that the Forest Service asserts created the need for the

⁹⁹ T. Switalski and A., *Off-road vehicle best management practices for forestlands: A review of scientific literature and guidance for managers*, Journal of Conservation Planning, Vol 8 (2012) at 16, attached as Ex. 17.

¹⁰⁰ Final EA at 30-31. See also *id.*, Appendix D at 2 (asserting, without further explanation that

¹⁰¹ Final EA at 46.

¹⁰² See Final EA, Appendix D at 18 (asserting that “Travel Management was previously analyzed under the 2012 Boggy Glade Travel Management Plan and is not part of the Lone Pine Vegetation Management Project.”).

project. There is a real potential that the permissive off-road drive management policy will have synergistic impacts with the Lone Pine project. The Forest Service's failure to consider, analyze, and disclose these impacts violates NEPA.

Suggested Remedy: The Forest Service must prepare a supplemental NEPA document that discloses the cumulative impacts of the proposed project together with the impacts of off-road vehicle driving for game retrieval and dispersed camping.

III. THE FINAL EA'S RELIANCE ON 'ADAPTIVE MANAGEMENT' VIOLATES NEPA.

The Lone Pine Revised EA relies in large part on an "adaptive management" strategy to address the potential for subsequent actions (including a change in the rate of the insect infestations) to require the agency to modify its proposed action.

To be effective and legal, adaptive management must: (1) clearly identify measurable thresholds that, if exceeded as determined by monitoring, will require a change in management; (2) clearly identify what that changed management will entail; and (3) disclose in this NEPA document the impacts caused by that change in management. Because the Final EA fails on all three counts, the Forest Service cannot rely on the adaptive management strategy as currently proposed.

We do not argue that the Forest Service can never adopt an adaptive management approach for this project. An adaptive management approach may be feasible and helpful in terms of permitting the agency to fine tune its management in the face of changing conditions. However, the agency's proposed approach fails to meet the conditions required to establish a lawful and effective plan.

A. The Law and Policy of Adaptive Management.

Academic recommendations concerning adaptive management. Academics conclude that effective adaptive management should involve treating management interventions as experiments, the outcomes of which are monitored and fed back into management planning. As outlined by land management experts, an adaptive management approach to forest management should include the following:

- Creation of management strategies (specific action alternatives in this case);
- Implementation of those strategies/actions;
- Monitoring of the effects (under the monitoring framework developed as part of the planning process); and
- Predetermined triggers for changes in management based on the results of monitoring.¹⁰³

¹⁰³ Schultz, C. and M. Nie. 2012. Decision-making triggers, adaptive management, and natural resources law and planning. *Natural Resources Journal* 52:443-521.

Forest Service experts in adaptive management have said that “[a]daptive management requires explicit designs that specify problem-framing and problem-solving processes, documentation and monitoring protocols, roles, relationships, and responsibilities, and assessment and evaluation processes.”¹⁰⁴

The fourth component, regarding triggers, is described by adaptive management experts in the following statement:

The term trigger, as used here, is a type of pre-negotiated commitment made by an agency within an adaptive management or mitigation framework specifying what actions will be taken if monitoring information shows x or y. In other words, predetermined decisions, or more general courses of action, are built into an adaptive framework from the beginning of the process.¹⁰⁵

The literature cited here calls for details and specifics, not ambiguity.

Regulations concerning adaptive management. This academic framing is reinforced by the Forest Service’s NEPA regulations, adopted in 2008, which define adaptive management as “[a] system of management practices based on *clearly identified intended outcomes and monitoring* to determine if management actions *are meeting those outcomes*; and, if not, to facilitate management changes that will best ensure that those outcomes are met or re-evaluated. Adaptive management stems from the recognition that knowledge about natural resource systems is sometimes uncertain.”¹⁰⁶ These regulations further state that:

An adaptive management proposal or alternative must *clearly identify the adjustment(s) that may be made* when monitoring during project implementation *indicates that the action is not having its intended effect*, or is causing unintended and undesirable effects. The EIS must disclose not only the effect of the proposed action or alternative *but also the effect of the adjustment*. Such proposal or alternative must also *describe the monitoring that would take place* to inform the responsible official during implementation whether the action is having its intended effect.¹⁰⁷

The preamble to the Forest Service’s regulation that adopted the adaptive management definition states that the agency must identify the proposed changes, and their impacts, in the NEPA document. “When proposing an action the responsible official may identify possible adjustments

¹⁰⁴ Stankey, G.H., R.N. Clark, and B.T. Bormann. 2005. Adaptive management of natural resources: theory, concepts, and management institutions. Gen. Tech. Rep. PNW-GTR-654. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 73 p., at page 58. Available at https://www.fs.fed.us/pnw/pubs/pnw_gtr654.pdf (last viewed Oct. 15, 2019).

¹⁰⁵ Schultz and Nie, Decision-making triggers, adaptive management, and natural resources law and planning at 455.

¹⁰⁶ 36 C.F.R. § 220.3 (emphasis added).

¹⁰⁷ 36 C.F.R. § 220.5(e)(2) (emphasis added).

that may be appropriate during project implementation. Those possible adjustments must be described and their effects analyzed in the EIS.”¹⁰⁸

Federal caselaw concerning adaptive management. Federal courts have found agencies violated NEPA or the Endangered Species Act (ESA) where the agency relied on an “adaptive management” plan that was vague, set no specific triggers for future action, failed to describe that future action, or failed to ensure that resources will be protected as the adaptive management plan asserts.

In *Natural Resources Defense Council v. U.S. Army Corps of Engineers*, 457 F. Supp. 2d 198 (S.D.N.Y. 2006), the court found that the Army Corps’ attempt to supplement an inadequately-explained finding of no significant impact concerning a dredging project was arbitrary and capricious where the agency relied on ill-defined “adaptive management” protocols to conclude that impacts would be mitigated below the level of significance.

The EA makes several promises that it will alter its monitoring plan should it prove necessary. For example, the EA relies on a general promise that it will “as appropriate, reevaluate, the need for altering its dredging methods” ... through the use of its coordination plan and monitoring program. The EA also explains that the Corps will follow “adaptive management practices as it moves through construction of its contracts,” thus allowing it to change future contracts should the data indicate it is necessary. These promises, however, provide no assurance as to the efficacy of the mitigation measures. The Corps did not provide a proposal for monitoring how effective “adaptive management” would be.¹⁰⁹

Mountaineers v. United States Forest Service, 445 F. Supp. 2d 1235 (W.D. Wash. 2006) set aside a Forest Service decision to open motor vehicle trails where the agency proposed to monitor impacts to wildlife and potentially change the trails later based on an adaptive management plan. The court stated that these adaptive management strategies “amount . . . to a ‘build-first, study later’ approach to resource management. This backward-looking decision making is not what NEPA contemplates.”¹¹⁰ Other cases similarly conclude that NEPA forbids the use of ill-defined adaptive management plans to assume away likely impacts of agency action.¹¹¹

Courts also hold unlawful agency projects that may impact species protected by the Endangered Species Act where the biological opinion is based on the assumption that a vague and ill-defined monitoring and adaptive management plan will mitigate impacts to the species at issue. These

¹⁰⁸ 73 Fed. Reg. 43,084, 43,090 (July 24, 2008).

¹⁰⁹ *NRDC v. United States Army Corps of Eng’rs*, 457 F. Supp. 2d at 234 (citations omitted).

¹¹⁰ *Mountaineers v. United States Forest Serv.*, 445 F. Supp. 2d at 1250.

¹¹¹ See, e.g., *High Sierra Hikers Association v. Weingardt*, 521 F. Supp. 2d 1065, 1090-91 (N.D. Ca. 2007) (overturning a Forest Service decision to liberalize the rules limiting campfires in high country parts of a wilderness area on the grounds that the agency could not rely on adaptive management to overcome an inadequate response to the problems raised in the record).

cases provide a useful analogy to adaptive management in the NEPA context. *Natural Resources Defense Council v. Kempthorne*, 506 F. Supp. 2d 322 (E.D. Ca. 2007) is key precedent. There, plaintiffs challenged a proposed plan to manage water diversions in a manner that could adversely impact the delta smelt, a species listed as threatened under the Endangered Species Act. The Fish and Wildlife Service prepared a biological opinion (BiOp) on the proposal which concluded that the project would neither jeopardize the smelt nor adversely modify the smelt's critical habitat. "Although the BiOp recognize[d] that *existing* protective measures may be inadequate, the FWS concluded that certain proposed protective measures, including . . . a proposed 'adaptive management' protocol would provide adequate protection."¹¹²

Plaintiffs alleged, among other things, that the BiOp "relie[d] upon uncertain (and allegedly inadequate) adaptive management processes to monitor and mitigate the [project's] potential impacts."¹¹³ They asserted that the adaptive management plan, which required a working group meet and consider adaptive measures in light of monitoring, failed to meet the ESA's mandate that mitigation be

"reasonably specific, certain to occur, and capable of implementation" because: (1) the [working group] has complete discretion over whether to meet and whether to recommend mitigation measures; (2) even if the [working group] meets and recommends mitigation measures, the [agency management team] group is free to reject any recommendations; (3) there are no standards to measure the effectiveness of actions taken; (4) reconsultation is not required should mitigation measures prove ineffective; and (5) ultimately, no action is ever required.¹¹⁴

The *Kempthorne* court cited prior caselaw holding that "a mitigation strategy [in the ESA context] must have some form of measurable goals, action measures, and a certain implementation schedule; i.e., that mitigation measures must incorporate some definite and certain requirements that ensure needed mitigation measures will be implemented."¹¹⁵ The court found that adaptive management plan "does not provide the required reasonable certainty to assure appropriate and necessary mitigation measures will be implemented."¹¹⁶ The court concluded that

Adaptive management is within the agency's discretion to choose and employ, however, the absence of any definite, certain, or enforceable criteria or standards make its use arbitrary and capricious under the totality of the circumstances.¹¹⁷

¹¹² *NRDC v. Kempthorne*, 506 F. Supp. 2d at 333-34 (emphasis in original).

¹¹³ *Id.*, 506 F. Supp. 2d at 329.

¹¹⁴ *Id.*, 506 F. Supp. 2d at 352. See also *id.* at 350 (explaining the "certain to occur" standard and citing *Ctr. for Biological Diversity v. Rumsfeld*, 198 F. Supp. 2d 1139, 1152 (D. Ariz. 2002)).

¹¹⁵ *NRDC v. Kempthorne*, 506 F. Supp. 2d at 355, citing *Rumsfeld*, 198 F. Supp. 2d at 1153.

¹¹⁶ *Id.*, 506 F. Supp. 2d at 356.

¹¹⁷ *Id.*, 506 F. Supp. 2d at 387.

B. The Final EA's Plan Does Not Comply with Law or Policy for Adaptive Management.

Although the Final EA states that it relies on adaptive management, the proposed plan does not contain key elements required to comply with NEPA, the Forest Plan's regulations, or the recommendations of academics.¹¹⁸ The plan contains some vague triggers for changed management, and some poorly defined adaptive proposals. Most concerning, however, is that the Forest Service does not effectively disclose the impacts of the proposed adaptation measures should they be implemented. While adaptive management may be an appropriate tool to assist in management of the Lone Pine area, the Forest Service must, as part of the NEPA process, develop a more detailed plan, identify specific triggers for changed management, identify specific management changes in case those triggers are met, and analyze and disclose the impacts of those changes. This the Forest Service failed to do.

"Adaptive management is included as an integral part of the proposed action," the Final EA states, "and will allow timely application of appropriate treatments based on actual site conditions at the time of implementation."¹¹⁹ The Forest Service describes the heart of the adaptive management plan as follows:

If monitoring during implementation indicates that the actions are not having the intended effect or are causing unintended or undesirable effects, then adaptive management actions may be taken. A list of the conditions that may trigger adaptive management and a list of the adaptive management actions that may be taken is given in Tables 6 – 8 in Appendix B.¹²⁰

"This adaptive management approach also includes periodic reviews of NEPA adequacy at various points in the project."¹²¹

The monitoring checklist, however, includes numerous statements assessing values without specifically describing how that assessment would take place, what factors the agency would consider, or how the agency would evaluate the numbers.¹²² In short, the monitoring plan contains some triggers that do not allow the public or the decisionmaker to understand when a threshold requiring a change of action has been crossed.

¹¹⁸ Objectors raised these issues in comments. See Center Revised EA Comments (Ex. 3) at 13-21; SJCA Revised EA Comments (Ex. 5) at 2; SJCA Initial EA Comments (Ex. 6) at 3. To the extent the Objectors raise new claims, they do so because the Forest Service revised its adaptive management plan in the Final EA.

¹¹⁹ Final EA at 10.

¹²⁰ Final EA at 19.

¹²¹ Final EA at 18.

¹²² Final EA at 58-59.

The checklist proposes that staff will “[d]etermine progress toward forest plan structural stage objectives.”¹²³ The Final EA does not establish a benchmark for “progress,” nor does it define that term. It states only that the agency will monitor “[v]egetation structural stage distribution analysis (GIS analysis)” every five years.¹²⁴

The checklist also proposes that the agency “[m]onitor elk population trends,” but specifies that such monitoring shall occur “[o]ne year following project completion, every 5 to 10 years thereafter until determined unnecessary, as priorities and funding allows.”¹²⁵ Because funding may not allow, it is unclear if this monitoring will ever take place. Further, it is unclear whether the Forest Service is proposing here to postpone all elk monitoring until 12 years from now – after the entire Lone Pine Project is complete – or after the completion of each unit within the project is complete. In any event, it is unclear how the project can be adapted if monitoring only occurs after the all logging has occurred. The Forest Service’s data gathering will be too late to be useful to modify the project.

The monitoring protocol states that the Forest Service will “[d]etect and prioritize treatment of noxious weed infestations in treated areas, but does not identify how treatment will be prioritized.”¹²⁶

The adaptive management plan permits the Forest Service to switch commercial thinning and single-tree selection cutting to salvage logging treatments if “% mortality in STS and CT units, and in plantation areas, is increasing and is expected to exceed >70% both pre and post treatment.”¹²⁷ The Final EA does not define “increasing” compared to what baseline, nor does the EA define how the Forest Service will model, or determine, its “expectations” concerning the percentage of mortality. This “trigger” is thus too vague to meet the definition of that term.

In short, elements of the monitoring plan are unlikely to assist the Forest Service in determining whether the Lone Pine project is having its “intended effect.”

The monitoring plan must serve the purpose of informing the agency as to whether the project is having the “the intended effect or [is] causing unintended or undesirable effects.”¹²⁸ But the Final EA itself provides little precise information or quantifiable parameters defining the project’s “intended effect,” nor does the agency precisely identify “unintended or undesirable” effects that it seeks to avoid in many cases. In other words, the Final EA fails in important areas to define “triggers” that, if exceeded, would indicate that the project has moved from achieving desired to undesirable outcomes. This makes it difficult for monitoring – and adaptive management – to achieve its intended purpose.

¹²³ Final EA at 58.

¹²⁴ Final EA at 58.

¹²⁵ Final EA at 59.

¹²⁶ Final EA at 59.

¹²⁷ Final EA at 63.

¹²⁸ Final EA at 10, 19, 57.

The adaptive management approach described in the Final EA in some cases fails to “*clearly identify the adjustment(s) that may be made* when monitoring during project implementation indicates that the action is not having its intended effect,” as Forest Service regulations require.¹²⁹ This violates the letter and spirit of Forest Service rules concerning adaptive management.

For example, with respect to monitoring of “Progress Toward Forest Plan Development Stage Objectives,” the agency directs that if “[d]evelopment stage diversity is not trending toward desired conditions,” then the agency should “increase monitoring” and take action if “large trees are underrepresented or absent.”¹³⁰ The adaptive management plan does not define “trending,” or “large trees,” making it difficult to understand what may trigger adaptive actions.

While the plan requires agency to monitor elk populations, action may be triggered if the agency observes “[d]ownward population trend based on review of annual Colorado Parks and Wildlife population survey data.”¹³¹ This trigger is subjective – downward compared to what? And what if, as demonstrated by 2018 data, the elk population in the data analysis unit for the project area is already below target levels? Would a stable, below-objective population be acceptable? Further, the adaptive management proposed is not well defined: “Work with CPW to determine cause of downward population trend. If downward trend is determined to be a result of impacts to production habitat,” the Forest Service may take certain actions.¹³² How long must the Forest Service “work” with CPW? How long a study can the agencies undertake? How would the agencies “determine” what is causing the downward trend? And if the logging prescriptions are holding elk populations in check, below the objective level, but not the cause of a downward trend, why would the Forest Service still be free to continue its actions? In short, the “trigger” related to elk population is ill-defined, as are the actions that may occur once the “trigger” is breached.

As discussed elsewhere, the Final EA also mentions another category of poorly-defined adjustment: treatments outside the fifteen project areas.

The proposed action also allows treatment on up to 1,500 acres *outside of the fifteen project areas* if changing conditions warrant.¹³³

The Final EA provides no information concerning the where, when and how of these “additional treatments,” or what specific “changing conditions” might trigger the need for additional treatments. Because the Final EA fails to identify either the trigger or the nature of the treatment, this proposal violates the Forest Service’s NEPA regulations.

¹²⁹ 36 C.F.R. § 220.5(e)(2) (emphasis added).

¹³⁰ Final EA at 60.

¹³¹ Final EA at 61.

¹³² Final EA at 61.

¹³³ Final EA at 1 (emphasis added).

Finally, Forest Service regulations and sound adaptive management policy require that the NEPA analysis “must disclose not only the effect of the proposed action or alternative *but also the effect of the adjustment.*”¹³⁴ The Final EA fails to disclose what the impacts will be if actions are adjusted pursuant to adaptive management.

Most importantly, although the Final EA’s adaptive management approach permits the agency to convert all cutting units to salvage logging should the agency “expect” that beetle mortality will reach a certain percentage, it does not disclose the impacts of such conversion.¹³⁵ Salvage logging across nearly 40,000 acres of forest, with up to 100 miles of roads, and thousands of additional trucks over and 11-year period will have far more destructive impacts than taking no action to manage the epidemic. The Final EA violates Forest Service NEPA regulations because it does not analyze or disclose the potential for these impacts which could occur under the adaptive management plan. The Final EA specifically *declined* to analyze a “salvage only” alternative, despite the fact that its adaptive management plan could *result* in “salvage only” prescriptions if the agency “expects” beetle mortality to reach a certain level.¹³⁶

For some resources, the Final EA appears to assert that if beetle activity “continues to expand,” under the proposed action, impacts to certain values (MIS species, migratory birds) “are expected to be similar to those described under the no action alternative.”¹³⁷ This is false, because salvage logging across the entirety of the project area would clearly have far different impacts than allowing the beetle epidemic to run its course in terms of impacts to soil, hydrology, noise pollution, disturbance from truck traffic, scenery, etc. Yet these impacts across the landscape are not disclosed.

The Final EA also fails to disclose the potential impact of its adaptive proposal in case “small but increasing amounts of bark beetle caused mortality occurs in treated units and basal areas remains near the levels desired/prescribed.”¹³⁸ The adaptive management proposal states:

In STS [single tree selection units], if basal areas in treated units is between 31-50 ft²/acre, and regen is found to be occurring, then continue with STS treatments in remaining STS units

In CT [commercial thinning] units, if basal areas in treated units is between 41-60 ft²/acre, and regen is found to be occurring, then continue with CT treatments in remaining CT units.¹³⁹

¹³⁴ 36 C.F.R. § 220.5(e)(2) (emphasis added).

¹³⁵ Final EA at 63.

¹³⁶ Final EA at 24-25 (refusing to consider a “salvage only” alternative).

¹³⁷ Final EA at 42, 46.

¹³⁸ Final EA at 63.

¹³⁹ Final EA at 63.

But the EA contains no analysis of impacts to forest resources if the basal areas in treated units falls to 31 ft²/acre across thousands of acres of STS units and 41 ft²/acre across thousands of acres of CT units, violating NEPA's hard look mandate.

Similarly, the EA fails to disclose the potential impact of its adaptive proposal in case "additional bark beetle caused mortality occurs in treated units causing basal area to drop to levels lower than desired/prescribed and no regen has occurred to increase stocking levels."¹⁴⁰ The adaptive management plan states:

In STS units, if basal area in treated units drops below 30 ft² per acre because of additional bark beetle caused mortality, then residual BA [basal area] in future STS treatments will be increased by 10-15 ft²/acre. This will be accomplished by leaving a higher % of trees in the largest size classes.

In CT units, if basal area in treated units drops below 40 ft²/acre because of additional bark beetle caused mortality, then residual BA in future CT treatments will be increased by 10-15 ft²/acre. This will be accomplished by leaving a higher % of trees in the largest size classes.

For this possibility, the Final EA contains only two sentences of analysis:

If bark beetle caused mortality continues to increase during or after implementation and causes basal areas in these treated stands to drop to levels lower than desired/ prescribed and no regen has occurred to increase stocking levels, then silvicultural prescriptions in future units will require residual basal area to be increased by 10-15 square feet per acre (refer to Table 8 in Appendix B). This will potentially leave these stands in a denser post-treatment condition, depending on how much bark beetle induced mortality occurs.¹⁴¹

This is not the hard look at adaptive management that the Forest Service regulations, and NEPA, require. Further, the impacts of such a prescription are likely to vary, depending when the trigger level is reached. If basal area in the first treated units drops below 30 ft² per acre, and dozens more remain to be logged, then requiring residual basal area to be increased by 10-15 square feet per acre may have a far more pronounced effect than if the basal area in dozens of units drops below 30 ft² per acre with only one unit left to log. Neither the Final EA nor the adaptive management plan account for this possibility, in violation of NEPA.

Finally, the Final EA states that the Forest Service will use an outside advisory group, the Dolores Watershed and Resilient Forests (DWRF) Collaborative, to act as something it calls "the adaptive management consulting group" to obtain feedback on monitoring results and potential adaptive management responses.¹⁴² While we support the Forest Service working with outside

¹⁴⁰ Final EA at 63.

¹⁴¹ Final EA at 29.

¹⁴² Final EA at 3. *See also* Final EA at 4 ("Utilizing the [DWRF] collaborative participants as a sounding board, and more formally the coordinating committee as the adaptive management consulting group, allows the agency to get rapid and direct feedback.").

stakeholders, the agency cannot rely on this group as a substitute for the public involvement NEPA requires.

In sum, the Forest Service has the authority to permit the agency to modify projects pursuant to an adaptive management plan, but it can only do so in accordance with NEPA and other laws. The Final EA, and the adaptive management plan it describes, fail to comply with those rules.

Suggested Remedy: The Forest Service must prepare a supplemental NEPA document to include an adaptive management plan that meets Forest Service regulations by: setting clear monitoring standards; setting specific triggers identifying when adjustments may be necessary, clearly identifying the adjustment(s) that may be made when monitoring shows those triggers have been reached; and disclosing the impacts of implementing any and all of those adjustments. Alternatively, the Forest Service must prepare a supplemental NEPA document that eliminates any adaptive management plan.

IV. THE FINAL EA FAILS TO ANALYZE A RANGE OF REASONABLE ALTERNATIVES.

A. NEPA Requires Agencies to Evaluate a Range of Reasonable Alternatives in EAs.

In taking the “hard look” at impacts that NEPA requires, an EA must “study, develop, and describe” reasonable alternatives to the proposed action.¹⁴³ The Tenth Circuit explains that this mandate extends to EAs as well as EISs. “A properly-drafted EA must include a discussion of appropriate alternatives to the proposed project.”¹⁴⁴ This alternatives analysis “is at the heart of the NEPA process, and is ‘operative even if the agency finds no significant environmental impact.’”¹⁴⁵ Reasonable alternatives must be analyzed for an EA even where a FONSI is issued because “nonsignificant impact does not equal no impact. Thus, if an even less harmful alternative is feasible, it ought to be considered.”¹⁴⁶ When an agency considers reasonable alternatives, it “ensures that it has considered all possible approaches to, and potential

¹⁴³ 42 U.S.C. § 4332(2)(C) & (E); 40 C.F.R. § 1508.9(b) (an EA “[s]hall include brief discussions . . . of alternatives”).

¹⁴⁴ *Davis v. Mineta*, 302 F.3d 1104, 1120 (10th Cir. 2002) (granting injunction where EA failed to consider reasonable alternatives).

¹⁴⁵ *Diné Citizens Against Ruining Our Env’t v. Klein*, 747 F. Supp. 2d 1234, 1254 (D. Colo. 2010) (quoting *Greater Yellowstone Coal. v. Flowers*, 359 F.3d 1257, 1277 (10th Cir. 2004)). See also *W. Watersheds Project v. Abbey*, 719 F.3d 1035, 1050 (9th Cir. 2013) (in preparing EA, “an agency must still give full and meaningful consideration to *all* reasonable alternatives” (emphasis added) (internal quotation and citation omitted)); 40 C.F.R. § 1502.14 (describing alternatives analysis as the “heart of the environmental impact statement”).

¹⁴⁶ *Ayers v. Espy*, 873 F. Supp. 455, 473 (D. Colo. 1994) (internal citation omitted).

environmental impacts of, a particular project; as a result, NEPA ensures that the most intelligent, optimally beneficial decision will ultimately be made.”¹⁴⁷

In determining whether an alternative is “reasonable,” and thus requires detailed analysis, courts look to two guideposts: “First, when considering agency actions taken pursuant to a statute, an alternative is reasonable only if it falls within the agency’s statutory mandate. Second, reasonableness is judged with reference to an agency’s objectives for a particular project.”¹⁴⁸ Any alternative that is unreasonably excluded will invalidate the NEPA analysis. “The existence of a viable but unexamined alternative renders an alternatives analysis, and the EA which relies upon it, inadequate.”¹⁴⁹ The agency’s obligation to consider reasonable alternatives applies to citizen-proposed alternatives.¹⁵⁰

Courts hold that an alternative may not be disregarded merely because it does not offer a complete solution to the problem.¹⁵¹ Even if additional alternatives would not fully achieve the project’s purpose and need, NEPA “does not permit the agency to eliminate from discussion or consideration a whole range of alternatives, merely because they would achieve only some of the purposes of a multipurpose project.”¹⁵² If a different action alternative “would only partly meet the goals of the project, this may allow the decision maker to conclude that meeting part of the goal with less environmental impact may be worth the tradeoff with a preferred alternative that has greater environmental impact.”¹⁵³

The courts also require that an agency adequately and explicitly explain in the EA any decision to eliminate an alternative from further study.¹⁵⁴

¹⁴⁷ *Wilderness Soc’y v. Wisely*, 524 F. Supp. 2d 1285, 1309 (D. Colo. 2007) (quotations & citation omitted).

¹⁴⁸ *Diné Citizens Against Ruining Our Env’t*, 747 F. Supp. 2d at 1255 (quoting *New Mexico ex rel. Richardson*, 565 F.3d at 709).

¹⁴⁹ *Id.* at 1256.

¹⁵⁰ *See Ctr. for Biological Diversity v. Nat’l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1217-19 (9th Cir. 2008) (finding EA deficient, in part, for failing to evaluate a specific proposal submitted by petitioner); *Colo. Env’tl. Coal. v. Dombeck*, 185 F.3d 1162, 1171 (10th Cir. 1999) (agency’s “[h]ard look” analysis should utilize “public comment and the best available scientific information”) (emphasis added).

¹⁵¹ *Natural Resources Defense Council, Inc. v. Morton*, 458 F.2d 827, 836 (D.C. Cir. 1972).

¹⁵² *Town of Matthews v. U.S. Dep’t. of Transp.*, 527 F. Supp. 1055 (W.D. N.C. 1981).

¹⁵³ *North Buckhead Civic Ass’n v. Skinner*, 903 F.2d 1533, 1542 (11th Cir. 1990).

¹⁵⁴ *See Wilderness Soc’y*, 524 F. Supp. 2d at 1309 (holding EA for agency decision to offer oil and gas leases violated NEPA because it failed to discuss the reasons for eliminating a “no surface occupancy” alternative); *Ayers*, 873 F. Supp. at 468, 473.

B. The Forest Service Should Consider an Alternative that Limits the Logging of Large or Old Trees.¹⁵⁵

Large and old ponderosa pine trees are relatively rare now in the Southwest compared to the period before European settlement because they were heavily logged over the last 150 years. They are similarly rare in the Lone Pine project area. Large, old ponderosa serve valuable ecosystem functions, have outsize value for wildlife, are more fire resistant, serve as important storehouses of genetic diversity, and store significant amounts of carbon.¹⁵⁶ If the Forest Service seeks to ensure resilience, ensure age class diversity, and reduce high-severity fire risk, as the Lone Pine Project's purpose and need statement indicates, it must preserve large and old trees.

As a result, numerous scientific studies, collaboratives, and Forest Service decisions have emphasized the need to protect large and old ponderosa pine trees in order to achieve both ecological restoration and greater resilience to catastrophic events such as wildfire and insect infestations. These decisions have often done so by setting an upper limit for the size of trees that can be logged for forest management.

For example, the Four Forest Restoration Initiative, a collaborative guided by science and working to improve management on forests in northern Arizona, has adopted an "Old Growth Protection & Large Tree Retention Strategy."¹⁵⁷ As part of that strategy, "the 4FRI Collaborative has agreed that the 4FRI effort should implement large tree retention and old growth protection strategies that are . . . are based upon a 16" diameter threshold that limits the cutting of trees larger than 16" to circumstances and criteria set forth in pre-defined exception categories."¹⁵⁸ A similar collaborative in New Mexico agreed that "[i]t is generally advisable to maintain ponderosa pines larger than 41 cm (16 inches) diameter at breast height (dbh) and other trees with old-growth morphology regardless of size (e.g. yellow-barked ponderosa pine or any species with large drooping limbs, twisted trunks or flattened tops)."¹⁵⁹

The pre-eminent peer-reviewed study on the issue concludes:

Large and old trees, especially those established before ecosystem disruption by Euro-American settlement, are rare, important, and difficult to replace. Their size and structural complexity provide critical wildlife habitat by contributing crown cover, influencing understory vegetation patterns, and providing future snags.

¹⁵⁵ The Objectors raised the issues discussed in this section in comments on the Revised EA. See Center Revised EA Comments (Ex. 3) at 23-26; SJCA Revised EA Comments (Ex. 5) at 1-2; SJCA Initial EA Comments (Ex. 6) at 2-3.

¹⁵⁶ See, e.g., Four Forest Restoration Initiative, Old Growth Protection & Large Tree Retention Strategy (Sep. 13, 2011) at 3-4 (citing numerous studies), attached as Ex. 18.

¹⁵⁷ *Id.*

¹⁵⁸ *Id.* at 7.

¹⁵⁹ U.S. Forest Service *et al.*, New Mexico Forest Restoration Principles (May 2006), attached as Ex. 19, available at https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5207898.pdf (last viewed Oct. 15, 2019).

Ecological restoration should protect the largest and oldest trees from cutting and crown fires, focusing treatments on excess numbers of small young trees. Given widespread agreement on this point, *it is generally advisable to retain ponderosa trees larger than 41 cm (16 inches) dbh and all trees with old-growth morphology regardless of size (i.e., yellow bark, large drooping limbs, twisted trunks, flattened tops)*. Despite the heterogeneity of forest site and stand conditions in the Southwest, cutting of larger trees will seldom be ecologically warranted as “restoration” treatments at this time due to their relative scarcity. Following this guideline would significantly reduce hazards of stand-replacing fires in most cases and also favor the development of future old-growth forest conditions (Moir and Dieterich 1988, Harrington and Sackett 1992).¹⁶⁰

This article notes that managing ponderosa pine forests for ecological restoration can also help increasing forest resilience.¹⁶¹

For the San Juan National Forest, including the Lone Pine area, the Forest Service and other stakeholders joined to establish the Ponderosa Pine Partnership (PPP) in the early 1990s. The Partnership developed “An Ecological Prescription for the San Juan Pine Zone,” including this prescription: “Retain large trees. Any trees 20 inches or larger in diameter should be retained. In stands with smaller trees, the largest trees should be retained.”¹⁶² The San Juan National Forest developed and partially implemented two projects under the PPP, including the Guard Station and Ferris East timber sales.¹⁶³ Both of these timber sales included diameter limits. The Guard Station Decision Notice prohibited the logging of trees over 16 inches DBH; the Ferris East Decision notice barred logging of ponderosa over 20 inches DBH.¹⁶⁴ Each of the sales was designed to meet goals that included forest restoration, supplying the needs of the local wood products industry, and reducing the risk of catastrophic wildfire.¹⁶⁵

Despite this scientific support, including studies and recommendations from the San Juan National Forest, for protecting larger, older trees, the Forest rejected 16” or 20” diameter limits it

¹⁶⁰ Allen *et al.*, Ecological Restoration of Southwestern Ponderosa Pine Ecosystems: A Broad Perspective, Ecological Applications, 12(5) (2002) at 1425, attached as Ex. 20.

¹⁶¹ *Id.* at 1429. (emphasis added). See also P.F. Hessburg, et al., *Restoring fire-prone Inland Pacific landscapes: seven core principles*, Landscape Ecology (2015) Vol. 30, 1805-1835, at 1820-23 (“Widely distributed large, old trees provide a critical backbone to dry pine and dry to mesic mixed-conifer forest landscapes”), attached as Ex. 21.

¹⁶² D. Lynch, Forest Restoration in Southwestern Ponderosa Pine, Journal of Forestry (Aug. 2000) at 17, attached as Ex. 22.

¹⁶³ Final EA at 2.

¹⁶⁴ San Juan National Forest, Guard Station Timber Sale, Decision Notice (May 1996) at 3 (“Cut no trees greater than 16” diameter breast height (DBH)”), attached as Ex. 23; San Juan National Forest, Ferris East Timber Sale, Decision Notice (Feb. 1998) at 3 (“No ponderosa pine in excess of 20 inches in diameter at breast height (DBH) will be harvested.”), attached as Ex. 24.

¹⁶⁵ *Id.*

previously endorsed in favor of a sliding scale that provides only limited protection for some trees over 21". Both the Final EA and the Decision Notice and FONSI contain a narrative description that states:

In the largest size classes, all trees over 26 inches in diameter will be retained unless they show evidence of active bark beetle infestation, in which case they will be harvested. Trees in the 21 – 24 inch size class will be retained unless they show evidence of active beetle infestation or severe defects.¹⁶⁶

This narrative is followed in both documents by a bulleted description of size classes that will be retained:

- 21.1" to 25.9" dbh Trees (22" and 25.9" diameter class) - leave approximately 75% (remove trees from this size class only if defective or they show evidence of active bark beetle infestations as nearly half of the stands don't have enough trees to warrant any removal in this class)
- 26.0" dbh trees and up will only be cut if they show evidence of active bark beetle infestation¹⁶⁷

As an initial matter, these descriptions conflict in at least two respects, making it difficult to determine the prescription's precise definition. First, the narrative description provides no limit on logging of trees between 24 and 26 inches, describing only the 21 – 24 inch diameter class and the 26 inch class. Second, the narrative description states that "[t]rees in the 21 – 24 inch size class will be retained unless they show evidence of . . . severe defects."¹⁶⁸ The bulleted description permits logging of trees 21.1" to 25.9" "if defective," without reference to "severe" defects. The Final EA defines only "defects," not "severe defects."¹⁶⁹ The Forest Service must, at a minimum, resolve these inconsistencies in any subsequently prepared NEPA document so that the public and the decision-maker understand precisely what the agency intends to adopt.

Even if the agency resolves its contradictory descriptions, there are at least three problems with the Forest Service's approach.

First, the agency provides no rational basis – and no scientific analysis – supporting its proposed prescriptions which provides a sliding-scale of protection (or lack thereof) for large and old trees. The Forest Service alleges that "[t]he proposed treatment prescriptions used for the Lone Pine project were established for the site specific conditions that are currently seen in the analysis

¹⁶⁶ Final EA at 14; Draft Decision Notice & FONSI at 5.

¹⁶⁷ Final EA at 14; Draft Decision Notice & FONSI at 5.

¹⁶⁸ Final EA at 14 (emphasis added); Draft Decision Notice & FONSI at 5 (emphasis added).

¹⁶⁹ Final EA at 13 ("*Defective* trees have many of the following characteristics: severely overtopped/suppressed, a mistletoe rating ≥ 3 , major physical defects, dead/damaged terminal leader, are expected to die within 10 years or not respond to release, are beetle infested, and/or have extremely limited crown or very poor vigor.") (emphasis in original).

area.”¹⁷⁰ But the Final EA provides no data or further explanation for why it established its sliding scale prescriptions, or how those relate to “site specific conditions.” The Final EA cites no scientific studies, nor provides examples of any other National Forest adopting a similar approach.

The Forest Service may attempt to rely on three studies cited in the Final EA’s bibliography that address diameter limits in their titles.¹⁷¹ These studies generally appear to conclude that while a strict diameter limit will protect all large trees, it will not necessarily protect all older trees, and that protection of only the largest trees can have unintended consequences in the following decades. But the Final EA does not rely on or cite these studies to support any proposition concerning large and old tree protections. Nor do those studies address the Final EA’s specific, but novel, prescriptions.¹⁷²

Second, the agency fails to provide any *scientific basis* for rejecting a 16” or 20” diameter cap. The Ponderosa Pine Partnership (PPP) working with Prof. William H. Romme, a respected professor of landscape ecology and forestry at Colorado State University, specifically developed the “Ecological Prescription for the San Juan Pine Zone” as part of the Ponderosa Pine Partnership, which includes the very forest stands at issue at Lone Pine.¹⁷³ Thus, this prescription was developed for this site-specific project area. The Forest Service’s rejection of the PPP’s previously-adopted, scientifically-supported, diameter restrictions developed specifically for this Forest, without explanation, violates NEPA’s hard look mandate and the requirement that the agency address opposing scientific conclusions.¹⁷⁴ The Forest Service does not provide any evidence that the Lone Pine area now is so different from the San Juan National Forest at the time the PPP prescriptions were developed that the Forest must abandon them.

Third, the agency fails to provide a *legal basis* for dismissing an alternative that would adopt a 16” or 20” diameter cap. The Forest Service explains that it rejects this approach because “the Forest Service does not feel it is necessary to include an alternative exclusively designed around limiting logging of large or old trees.”¹⁷⁵

We are aware of no court concluding that an agency may limit the range of alternatives based on what an agency “feels is necessary.” The test is whether a proposed alternative fits within the

¹⁷⁰ Final EA, Appendix D at 13.

¹⁷¹ See Final EA at 47 (citing Abella *et al.* (2006)); *id.* at 50 (citing Meader Sanchez *et. al.* (2015)); *id.* at 53 (citing USDA Forest Service, FR-R3-16-3 (2011)).

¹⁷² The Forest Service’s adoption of the sliding scale diameter restrictions is also suspect because it was developed at the last minute, and the agency provides no explanation for abandoning its prior, also arbitrary, 28” diameter cap, which was in place for the Revised EA published just two and a half months prior to publication of the Final EA. See Center Revised EA Comments (Ex. 3) at 25-26.

¹⁷³ D. Lynch, Forest Restoration in Southwestern Ponderosa Pine (Ex. 22) at 17.

¹⁷⁴ See note 50, *supra*.

¹⁷⁵ Final EA, Appendix D at 3.

purpose and need, at least partially, and is not duplicative of other alternatives under consideration.

Protecting large, old green trees of 20 inches DBH or greater would, *at a minimum*, partially meet the project purpose and need, because it would: increase forest resiliency; promote recovery of forest vegetation; reduce the risk of high severity wildfires, and provide wood products for both commercial and non-commercial uses, albeit at a lower volume than that made available with no cap or the sliding scale diameter prescriptions contained in the Final EA. But this is exactly the kind of trade-off that NEPA demands, one that puts in sharp relief the competing values of forest protection and commercial gain. Thus, a 20" DBH cap, by at least partially meeting the purpose and need, is a reasonable alternative that the Forest Service should analyze in full in any subsequently prepared NEPA document.

A charitable reading of the Forest Service's response might be that the agency's sliding scale diameter limits provide some protection for large trees, and so a proposal with a 20" diameter cap would be substantially similar. But the agency admits that "the proposed treatment prescriptions [in the Final EA] are not exactly the same as those used as part of the Ponderosa Pine Partnership."¹⁷⁶ In addition, a 20" (or 16") diameter limit substantially differs from a 26" inch diameter limitation because the lower diameter limits would leave substantially more old and large trees on the landscape. The lower diameter prescriptions would thus provide greater protection for wildlife that relies on such trees, and would better meet many ecological needs as described in the plethora of scientific papers related to those limits.

In addition, the sliding scale prescription adopted in the Final EA is not particularly protective of larger, older trees. While the prescription states that the agency should leave 75% of trees between 21 and 26 inches, it also permits to "remove trees from this size class only if defective or they show evidence of active bark beetle infestations."¹⁷⁷ The definition of defective – those trees that have "many of the following characteristics: severely overtopped/suppressed, a mistletoe rating ≥ 3 , major physical defects, dead/damaged terminal leader, are expected to die within 10 years or not respond to release, are beetle infested, and/or have extremely limited crown or very poor vigor"¹⁷⁸ – provides the Forest Service with sufficiently broad discretion to conclude that most trees in the identified size class meet that definition.

Stand data provided by the San Juan National Forest shows several stands with no trees at all averaging 20" DBH or greater, numerous stands averaging less than 10 trees per acre of 20" DBH or greater, and almost no stands averaging 20 trees per acre of 20" DBH or greater. In its description of the stand prescription to protect trees larger than 21", the Final EA appears to admit that relatively few of these large, old trees are present on the landscape. The EA states that "nearly half of the stands don't have enough trees to warrant *any* removal in this class [from 21" to 26"]"¹⁷⁹ While these larger few trees may represent a non-trivial volume of merchantable

¹⁷⁶ Final EA, Appendix D at 13.

¹⁷⁷ Final EA at 13.

¹⁷⁸ Final EA at 13.

¹⁷⁹ Final EA at 14 (emphasis added); Draft Decision Notice & FONSI at 5 (emphasis added).

board feet, they are arguably far more valuable ecologically and for forest resilience than they are as lumber. Because one goal of the project is to “create a more heterogeneous stand structure at the landscape level,”¹⁸⁰ the Forest Service must preserve old and large trees and foster them across the landscape, given their present rarity (or non-existence), a circumstance at odds with historical stand structure.

Further, it seems particularly important that the Forest Service explore this and other alternatives given that the agency modified the project’s purpose and need between the time it prepared the Initial and Revised EA.

Suggested Remedy: The Forest Service must prepare a supplemental NEPA document that analyzes in detail an alternative that prohibits logging of large and old trees 16” and larger, or 20” and larger, diameter breast height.

C. The Final EA’s Dismissal of the Proposed “Enhanced Natural Recovery” Alternative Lacks Merit.

In comments on the Initial EA, the Center requested that the Forest Service review an alternative, proposed by ecologist Dr. Bill Baker, known as the “Enhanced Natural Recovery/Partial Salvage Alternative,” which would permit salvage logging on a reduced area near roads, while allowing those trees surviving the beetle epidemic to provide for structural diversity and as a seed source for reforestation.¹⁸¹ We stated that the “Enhanced Natural Recovery/Partial Salvage Alternative” met the Lone Pine project’s purpose and need, because it would: help restore the forest’s ecological function and increase biological and age class diversity (for the most part relying on those trees that naturally survive the beetle epidemics to do so); reduce the potential for crown fires (by allowing logging along the extensive existing road network); and so address the current bark beetle epidemic within ponderosa forests in the proposal area.¹⁸² Leaving green trees that survive beetle attacks will support forest health and resilience by protecting those trees that proved most resilient. Protecting such trees in an area impacted by beetles will also increase age class and biological diversity, and promote conditions suitable to reintroduction of low- and mixed-severity fire. Allowing some salvage logging close to roads would achieve at least some of the project purpose to promote ponderosa pine resilience and provide wood products for use.

The Revised (and Final) EA declined to analyze the Enhanced Natural Recovery/Partial Salvage Alternative.¹⁸³ This was in error. The Forest Service admits that the salvage portion of the proposed alternative “would meet the purpose and need of providing wood products for both commercial and non-commercial uses but would not adequately address the purpose and need to increase forest resiliency.”¹⁸⁴ But, as noted above, NEPA “does not permit the agency to

¹⁸⁰ Final EA at 30.

¹⁸¹ Center Initial EA Comments (Ex. 14) at 14-15. The Center also raised this issue in its comments on the Revised EA (Ex. 3) at 26-27.

¹⁸² See Initial EA at 7, 8 (describing project purpose and need).

¹⁸³ See, e.g., Final EA at 10, 24-25.

¹⁸⁴ Final EA at 24, 25.

eliminate from discussion or consideration a whole range of alternatives, merely because they would achieve only some of the purposes of a multipurpose project.”¹⁸⁵ That is precisely the situation here with the Enhanced Natural Recovery Alternative.

The Final EA also declined to analyze in full the alternative because it would provide more snags for wildlife than necessary to stave off negative impacts to wildlife that depend on them.¹⁸⁶ The Forest Service’s argument here appears to be that because the agency’s proposal does a minimal job of protecting snag-dependent wildlife, the agency cannot review the Enhanced Natural Recovery Alternative which would do a better job of providing such habitat. We are unaware of caselaw that supports this sort of rationale.

Finally, Dr. Baker’s alternative proposed using prescribed burning to stimulate regeneration where regeneration did not occur naturally within 2-3 years, but no tree planting as proposed in the agency’s proposed action. While the Revised EA admits that “[p]rescribed burning is not specifically part of the [agency’s] proposed action,” and that such burning can “help encourage natural regeneration,” the Forest Service dismissed the Enhanced Natural Recovery Alternative because it would not “meet the purpose and need of encouraging recovery of forest revegetation,” although it also admits that tree planting the agency proposed but the Recovery alternative avoided would only be necessary “as a last resort.”¹⁸⁷ This rejection, however, makes clear that using fire would be partially effective in meeting the regeneration purpose and need.

Taken as a whole, the Enhanced Natural Recovery Alternative would, at a minimum, fully or partially meet three components of the Forest Service’s purpose and need by: (1) promoting recovery of forest vegetation, at least in part; (2) reducing the risk of high severity wildfires; and (3) providing wood products for both commercial and non-commercial uses.¹⁸⁸ Because this alternative would partially meet the project’s purpose and need, the Forest Service must analyze it in detail in any subsequently prepared NEPA document.

Suggested Remedy: The Forest Service must prepare a supplemental NEPA document that analyzes in detail the Enhanced Natural Recovery Alternative.

D. The Final EA Fails to Consider a Reasonable Alternative to Protect Watersheds.

The Final EA acknowledges that large areas of the project area include watersheds defined as “functional at risk,” meaning that logging roads and other soil compaction associated with logging, landings, and skid trails could worsen water quality in already impaired watersheds.¹⁸⁹

¹⁸⁵ *Town of Matthews v. U.S. Dep’t. of Transp.*, 527 F. Supp. 1055 (W.D. N.C. 1981).

¹⁸⁶ Final EA at 25 (“the wildlife assessment in Section 3.3 found that snag dependent species would not be negatively impacted by the proposed action.”).

¹⁸⁷ Final EA at 25.

¹⁸⁸ Final EA at 4 (project purpose and need).

¹⁸⁹ The Center raised this issue in comments on the Revised EA. See Center Revised EA Comment (Ex. 3) at 27-28.

The Final EA notes that four watersheds – comprising roughly 53,000 acres of the 67,000-acre project area – could exceed 25% overall disturbance with project implementation.¹⁹⁰ The Final EA proposes to mitigate impacts by restricting the timing of activities, or “[i]f that is not sufficient to keep impacts below the 15% level, then activities that are shown to be causing the exceedance of this threshold will be prohibited.”¹⁹¹ But another clear method for protecting watersheds without approaching the 15% threshold would be to avoid these watersheds altogether. The Forest Service’s failure to consider in detail such an alternative or mitigation measure violates NEPA.¹⁹²

Suggested Remedy: The Forest Service must prepare a supplemental NEPA document that analyzes in detail an alternative that prohibits logging and road construction in functional at risk watersheds.

V. THE FINAL EA FAILS TO ANALYZE THE EFFECTIVENESS OF MITIGATION MEASURES.

A. NEPA Mandates That Agencies Analyze Potential Mitigation Measures.

NEPA’s statutory language implicitly charges agencies with mitigating the adverse environmental impacts of their actions.¹⁹³ NEPA’s implementing regulations require that agencies analyze and proposed mitigation measures.¹⁹⁴

The CEQ also has stated: “All relevant, reasonable mitigation measures that could improve the project are to be identified, even if they are outside the jurisdiction of the lead agency or the

¹⁹⁰ Final EA at 37 (“Watersheds in which treatment unit acreages combined with road acreages (existing and temporary) reached approximately 25% of the total watershed area were identified as being at risk of exceeding the 15% threshold for detrimentally compacted, eroded, or displaced soil at any one time The watersheds that exceeded 25% overall disturbance are: Dawson Draw, Lake Canyon-Dolores River, Narraguinnep Canyon, and Pine Arroyo.”). *See also id.* at 31 (identifying acreage of named watersheds in project area).

¹⁹¹ Final EA at 37, 61.

¹⁹² The Initial EA, at 27, contained a map displaying “Erosive areas within the project area.” The Revised and Final EA omitted such a map, and never explained the omission. Providing the decisionmaker and the public with *less* information on this important issue undermines NEPA’s “hard look” mandate.

¹⁹³ *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 351-52 (1989); *Holy Cross Wilderness Fund v. Madigan*, 960 F.2d 1515, 1522 (10th Cir. 1992).

¹⁹⁴ 40 C.F.R. §§ 1502.14(f), 1502.16(h).

cooperation agencies”¹⁹⁵ According to the CEQ, “[a]ny such measures that are adopted must be explained and committed in the ROD.”¹⁹⁶

The Tenth Circuit has held that an agency’s analysis of mitigation measures “must be ‘reasonably complete’ in order to ‘properly evaluate the severity of the adverse effects’ of a proposed project prior to making a final decision.”¹⁹⁷ Mitigation “must be discussed in sufficient detail to ensure that environmental consequences have been fairly evaluated.”¹⁹⁸

“[O]mission of a reasonably complete discussion of possible mitigation measures would undermine the ‘action-forcing’ function of NEPA. Without such a discussion, neither the agency nor other interested groups and individuals can properly evaluate the severity of the adverse effects.”¹⁹⁹ A “perfunctory description,” of mitigation, without “supporting analytical data” analyzing their efficacy, is inadequate to satisfy NEPA’s requirements that an agency take a “hard look” at possible mitigating measures.²⁰⁰ An agency’s “broad generalizations and vague references to mitigation measures . . . do not constitute the detail as to mitigation measures that would be undertaken, and their effectiveness, that the Forest Service is required to provide.”²⁰¹ Moreover, in its final decision documents, an agency must “[s]tate whether all practicable means to avoid or minimize environmental harm from the alternative selected have been adopted, and if not, why they were not.”²⁰²

¹⁹⁵ Forty Most Asked Questions Concerning CEQ’s National Environmental Policy Act Regulations, 46 Fed. Reg. 18026, 18031 (March 23, 1981).

¹⁹⁶ Forty Questions, 46 Fed. Reg. at 18036.

¹⁹⁷ *Colo. Env’t’l Coalition v. Dombeck*, 185 F.3d 1162, 1173 (10th Cir. 1999) (quoting *Robertson*, 490 U.S. at 352).

¹⁹⁸ *City of Carmel-by-the-Sea v. U.S. Dept. of Transp.*, 123 F.3d 1142, 1154 (9th Cir. 1997) (quoting *Robertson*, 490 U.S. at 353).

¹⁹⁹ *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 353 (1989).

²⁰⁰ *Neighbors of Cuddy Mountain v. U.S. Forest Serv.*, 137 F.3d 1372, 1380 (9th Cir. 1998).

²⁰¹ *Id.* at 1380-81. See also *Northwest Indian Cemetery Protective Association v. Peterson*, 795 F.2d 688, 697 (9th Cir. 1986), rev’d on other grounds, 485 U.S. 439 (1988) (“A mere listing of mitigation measures is insufficient to qualify as the reasoned discussion required by NEPA.”); *Idaho Sporting Congress v. Thomas*, 137 F.3d 1146, 1151 (9th Cir. 1988) (“Without analytical data to support the proposed mitigation measures, we are not persuaded that they amount to anything more than a ‘mere listing’ of good management practices.”).

²⁰² 40 C.F.R. § 1505.2(c).

B. The Final EA Fails to Analyze the Effectiveness of Mitigation Measures.²⁰³

The Final EA barely mentions the word “mitigation,” instead asserting that “[p]roject design elements detailed below were developed for the proposed action to minimize or eliminate potential adverse effects during implementation.”²⁰⁴

While the Final EA lists many “design elements,”²⁰⁵ it does not evaluate the effectiveness of each measure. Whether some of these measures would be effective at all is open to question because many of them are subject to change, waiver, or the whims of agency determination as to practicality.

For example, the Revised EA contained the following design element: “Development of temporary logging roads will protect wildlife corridors to the extent practicable.”²⁰⁶ When the Center criticized this measure as too vague, the Forest Service, rather than strengthening the measure to make it protective, eliminated it from the Final EA on the grounds that no wildlife corridors existed.²⁰⁷ The Forest Service states that temporary road placement will be “review[ed] by a wildlife biologist.”²⁰⁸ As such, the Final EA contains an even more vague, and weaker, mitigation measure to “protect” wildlife from the development of temporary roads.

A provision allegedly mitigating impact to “elk production habitat” in the Revised EA allowed the “line officer” to approve operations in those areas.²⁰⁹ No criteria or benchmarks were provided to limit the officer’s discretion, and thus it is impossible to tell whether this measure can be effective.²¹⁰ The Final EA responded to these comments by modifying the design element, but without providing the public or decision-maker any data about how it would be implemented or its effectiveness:

After further review, this design element has been edited to read: “*Operations in Colorado Parks and Wildlife (CPW)-mapped elk production habitat (Figure) shall not occur from May 15th to June 30th without line officer approval. The only operations that the line officer may approve is travel through mapped*

²⁰³ The Objectors raised the issues discussed in this section in comments on the Revised EA. See Center Revised EA Comments (Ex. 3) at 32-35; SJCA Revised EA Comments (Ex. 5) at 1-2).

²⁰⁴ Final EA at 19. See also *id.*, Appendix D at 10 (“The design elements listed in Section 2.2.5 were developed to minimize or eliminate potential adverse effects during implementation”).

²⁰⁵ Final EA at 20-24.

²⁰⁶ Revised EA at 23.

²⁰⁷ See Final EA, Appendix D at 21.

²⁰⁸ Final EA, Appendix D at 21.

²⁰⁹ Revised EA at 19.

²¹⁰ Center Revised EA Comments (Ex. 3) at 23.

*production areas. This will only be approved after consultation with Colorado Parks and Wildlife about the amount of proposed use and access routes.”*²¹¹

While this measure limits what actions the Forest Service can approve in elk production habitat, it does not explain whether and how permitting heavy traffic of heavy equipment through important habitat will be evaluated or permitted, or how a “consultation” will ensure that no significant impacts will occur.

The Forest Service deleted another design element meant to mitigate for impacts of elk “pushed onto private land areas or pushed out of transition areas and onto winter range ahead of schedule.”²¹² When the Center criticized the Revised EA’s design element as “ill-defined and discretionary,” the Forest Service simply deleted the measure, replacing it with nothing, meaning that there the agency has no mitigation or design element in place to address the impacts of driving elk out of important public land habitat. The Forest Service cannot conclude that it will mitigate such impacts below the level of significance when it does nothing to mitigate them.

Another design element requires that weed infestations “are to be reported,” but infested areas may only be treated “as funding and personnel allows.”²¹³ This design element cannot be claimed as effective because it may never be implemented due to budgetary constraints. The Forest Service responded to this criticism by stating that “there are only small isolated populations of noxious weeds in the project area” and that “establishment and/or spread of invasive species would be minimal.”²¹⁴ But the Forest Service fails to address whether that “minimal” spread would grow due to funding constraints it admits hobble the agency.

Because the Final EA fails to analyze the effectiveness of individual design elements, and because some of the design elements are unlikely to be effective, the Final EA violates NEPA.

Suggested Remedy: The Forest Service must prepare a new NEPA document that proposes, and a new draft FONSI that adopts, mitigation measures that will ensure that the project does not have significant impacts to elk, and that ensures that noxious weed impacts will not be significant.

C. Slash Pile Mitigation Measure.

In response to a comment on the Initial EA that “[t]he maximum burn pile size of one half acre seems entirely too large,” the Forest Service revised this design element such that the maximum burn pile size is now “no more than ¼ acre.”²¹⁵ While we appreciate the Forest Service’s willingness to modify this measure, a ¼-acre burn pile could be a square 100 feet by 100 feet, or

²¹¹ Final EA, Appendix D at 20.

²¹² See Center Revised EA Comments (Ex. 3) at 34 (quoting Revised EA at 23); Final EA, Appendix D at 20. SJCA also raised this issue. SJCA Initial EA Comment (Ex. 6) at 5.

²¹³ Final EA at 59.

²¹⁴ Final EA, Appendix D at 24.

²¹⁵ Final EA, Appendix D at 14.

a circle with a 117-foot diameter, which still seems large, and has the potential to sterilize soils across a significant area. For comparison, we note that BLM in Idaho prepared a programmatic EA on a “Pile Burning Program,” which stated that “[t]he proposed action should affect < 0.25 acres for landing piles and < 0.1 acres for piles created inside treatment areas (machine piling slash in a tractor logged unit or piled slash from slashing operations to create planting spots, wildlife forage areas, reduce fuel loading, etc.).”²¹⁶ Even piles one-tenth of an acre in size (a square 66 feet on each side, a circle with a 74-foot diameter) could degrade large areas of soil.

The Final EA responds to this concern by ignoring the fact that another agency recommended small burn piles after an entire EA devoted to the issue, and stating that “[d]esign elements are included that requires piles be located where damage to pine regeneration or seed trees is minimized when burned.”²¹⁷ But the BLM EA contained similar proposals to limit damage and still proposed smaller piles.²¹⁸ Further, “minimizing” impacts does not ensure that the impacts are guaranteed to be insignificant.

The Final EA’s vague measures, for which the agency does not address their effectiveness, and which do not assure impacts below the level of significance, violate NEPA.

Suggested Remedy: The Forest Service must prepare a new NEPA document that proposes, and a new draft FONSI that adopts, mitigation measures that will ensure that pile burning does not have significant impacts to soils or other resources.

VI. THE FOREST SERVICE MUST PREPARE AN ENVIRONMENTAL IMPACT STATEMENT ON THE LONE PINE PROJECT.

A. Agencies Must Prepare EISs When Impacts ‘May’ Be Significant.

NEPA requires federal agencies to prepare a full environmental impact statement (EIS) before undertaking “major Federal actions significantly affecting the quality of the human environment.”²¹⁹ As the Tenth Circuit has explained, “[i]f the agency determines that its proposed action *may* ‘significantly affect’ the environment, the agency must prepare a detailed statement on the environmental impact of the proposed action in the form of an EIS.”²²⁰ The Ninth Circuit agrees.

²¹⁶ BLM, Coeur D’Alene District Office, Pile Burning Program Programmatic Environmental Assessment (Feb. 2013) at 18, available at https://eplanning.blm.gov/epl-front-office/projects/nepa/33856/42455/45205/Pile_Burning_EA_508.pdf (last viewed Oct. 15, 2019), excerpts attached as Ex. 25.

²¹⁷ Final EA, Appendix D at 14; Final EA at 21.

²¹⁸ See BLM, Pile Burning EA (Ex. 25) at 18 (“when possible slash piles would be burned in rocky areas to minimize these localized impacts to soil”).

²¹⁹ 42 U.S.C. § 4332(C).

²²⁰ *Airport Neighbors Alliance v. U.S.*, 90 F.3d 426, 429 (10th Cir. 1996) (citation omitted) (emphasis added).

We have held that an EIS *must* be prepared if ‘substantial questions are raised as to whether a project . . . *may* cause significant degradation to some human environmental factor.’ To trigger this requirement a ‘plaintiff need not show that significant effects *will in fact occur*,’ [but instead] raising ‘substantial questions whether a project may have a significant effect’ is sufficient.²²¹

If an agency “decides not to prepare an EIS, ‘it must put forth a convincing statement of reasons’ that explains why the project will impact the environment no more than insignificantly. This account proves crucial to evaluating whether the [agency] took the requisite ‘hard look.’”²²²

“Significance” under NEPA requires consideration of the action’s context and intensity.²²³ An agency must analyze the significance of the action in several contexts, including short- and long-term effects within the setting of the proposed action (including site-specific, local impacts).²²⁴ Intensity refers to the severity of the impact and requires consideration of ten identified factors that may generally lead to a significance determination, including: (1) whether the action is likely to be highly controversial; (2) whether the effects on the environment are highly uncertain or involve unique or unknown risks; and (3) whether the action may have cumulative significant impacts.²²⁵ With respect to the degree to which the environmental effects are likely to be highly controversial, the word “controversial” refers to situations where “‘substantial dispute exists as to the size, nature, or *effect* of the major federal action.’”²²⁶

The Lone Pine project appears likely to may have significant impacts, triggering the Forest Service’s duty to prepare an EIS. The project permits the construction of up to 100 miles of temporary road, a significant amount. The Forest Service admits that it is uncertain whether the project will be able to achieve its stated goals in the face of climate change and an ongoing beetle epidemic, and the project would permit the conversion of all treatments over a nearly 60-square-mile area to salvage logging if conditions change.

²²¹ *Idaho Sporting Cong. v. Thomas*, 137 F.3d 1146, 1149-50 (9th Cir. 1998) (citations omitted) (emphasis original). See also *Ocean Advocates v. U.S. Army Corps of Eng’rs*, 402 F.3d 846, 864-65 (9th Cir. 2005) (“To trigger this [EIS] requirement a plaintiff need not show that significant effects will in fact occur, but raising substantial questions whether a project may have a significant effect is sufficient.” (internal quotations, citations, and alterations omitted)).

²²² *Ocean Advoc.*, 402 F.3d at 864.

²²³ 40 C.F.R. § 1508.27.

²²⁴ *Id.* § 1508.27(a).

²²⁵ *Id.* § 1508.27(b)(4)-(5), (7)

²²⁶ *Town of Cave Creek v. FAA*, 325 F.3d 320, 331 (D.C. Cir. 2003) (quoting *North American Wild Sheep v. U.S. Department of Agriculture*, 681 F.2d 1172, 1182 (9th Cir. 1982)) (emphasis in original). See also *Middle Rio Grande Conservancy Dist. v. Norton*, 294 F.3d 1220, 1229 (10th Cir. 2002) (same); *Town of Superior v. U.S. Fish and Wildlife Serv.*, 913 F. Supp. 2d 1087, 1120 (D. Colo. 2012) (same).

B. The Lone Pine Project May Have Significant Impacts.²²⁷

The impacts of this project are “highly uncertain.” The nature of this project, and its impacts, remain highly uncertain. The Forest Service asserts that science does not provide an answer as to which treatments it should apply to ensure forest resilience. “[I]t does not appear that there is a clear, science-based answer related to what the ‘correct’ treatment is, including whether or not green trees should be cut.”²²⁸ Because the Forest Service does not know whether the project will have the desired effect, it cannot support a finding of no significant impact.

Further, the Final EA appears to ignore key findings of the studies it does cite to support its assertion that “thinning can significantly reduce mountain pine beetle-caused tree mortality in ponderosa pine forests exposed to various infestation levels when appropriate residual stocking or inter-tree spacings are achieved.”²²⁹ Generally, these studies attempt to show that the percentage of trees killed by beetles is reduced after thinning during an ongoing beetle outbreak. However, *total* tree mortality (combining the mortality from thinning with the mortality from beetles) in a treated area typically *exceeds* mortality from beetles alone in an adjoining control. The studies do not focus on this total mortality, addressing only how many trees are killed by beetles. This was a key point made by Six *et al.*: that thinning treatments typically do not reduce total tree mortality.²³⁰ Instead, thinning usually increases total mortality, typically quite substantially.

There is also significant uncertainty about what treatments will occur where, making it impossible for the agency to conclude there can be no significant impacts. Some treatments (sanitation/salvage, oak thinning, and slash and pile burning) can occur anywhere, or potentially, almost nowhere, within any of the treatment units.²³¹ The scope of the project is not clearly defined as the proposed action also allows for 1,500 acres of treatment outside of the 15 project areas if changing conditions warrant, although what those “changing conditions” are is nowhere described.²³² The location and total mileage of new road construction will not be determined until after the NEPA process is complete. Proposed logging in each of the 15 project areas can be “switch[ed]” from one treatment to another, meaning that the entire 100-square-mile area could be salvage logged.²³³ Based on these uncertainties, the Forest Service cannot reasonably find that this project will have no significant impacts.

²²⁷ Objectors raised this issue in its comments. See Center Revised EA Comments (Ex. 3) at 37-42; Center Initial EA Comments (Ex. 14) at 14-15; SJCA Initial EA Comments (Ex. 6) at 2.

²²⁸ Final EA at 9.

²²⁹ Final EA at 9.

²³⁰ D.L. Six *et al.*, Management for Mountain Pine Beetle Outbreak Suppression: Does Relevant Science Support Current Policy?, *Forests*, Vol. 5, 103-133 (2014), attached as Ex. 26.

²³¹ See *supra* at 16-17.

²³² See *supra* at 15-16.

²³³ See Final EA at 63.

The scale of the project itself may be significant. The Lone Pine project will require up to 100 miles of new, temporary road construction and “improvements” on scores of additional miles of maintenance level 1 routes.²³⁴ Logging may take place on nearly 60 square miles of forest land, including 1,500 occurs at undisclosed locations, and will occur continuously across this 66,000-acre landscape for over a decade. The large scale of the project supports a conclusion of significance.

The project may significantly impact soils and watersheds. Construction of temporary roads and landing areas, and the use of an unknown number, length and location of skid trails, have the potential to significantly impact sensitive soils and watersheds. According to the Initial EA, 3,900 acres within the project area have erosive soils.

Areas with erosive soils include unstable geologic formations, display evidence of past or have high potential for mass movement, lack vegetation, or have slopes greater than 35 percent. GIS analysis indicates that there are approximately 3,900 acres of erosive soils within the project area (about 6.2 percent).²³⁵

The Revised EA removed this characterization without explanation; the Final EA similarly contains no mention of erosive soils.²³⁶ And while the Final EA states that the agency will

²³⁴ Final EA at 17, 18.

²³⁵ Initial EA at 23.

²³⁶ The Final EA also omits other statements contained in the Initial EA concerning impacts to soils and watersheds without explanation. For example, the Initial EA stated that “[s]hort-term adverse impacts would include soil profile disruption, ground vegetation loss, and increased likelihood of erosion and sedimentation to intermittent and ephemeral drainages. These impacts would be expected until effective groundcover and vegetative conditions stabilize local soil conditions.” Initial EA at 28. These statements are also omitted from the Final EA without explanation. The Final EA also omits the following: “[Recent] surveys found existing stream conditions in a diminished state compared to previous surveys, rating as *functional at risk with a downward trend*.” Initial EA at 24. The Final EA also omits this paragraph contained in the Initial EA:

Short and long-term soil and watershed impacts could occur in the four watersheds that have high percentages of their total acreage available for treatment (figure 6) and are most sensitive to anthropogenic disturbances. In addition, the Watershed Condition Framework classifies these watersheds as functional at risk. Of special concern are the Dawson Draw and Lake Canyon watersheds that currently have impaired soil conditions. Ongoing implementation within these watersheds would be of concern, especially if vegetative regrowth is slower than projected, soil productivity is greatly diminished, or basal area reductions are extreme. Condition assessments at the time of proposed site-specific implementation, or during implementation, could result in altering project implementation to minimize erosion potential and assure watershed form and function are maintained.

“[a]void locating landing pads and staging areas” in areas “that have high potential for mass movement” or “have other highly erosive . . . soils,”²³⁷ the project does not appear to bar the construction of temporary roads in such areas. Further, it is unclear whether “avoid” means no construction may occur, or whether those areas could be impacted. The Forest Service failed to provide a specific response to this question when the Center raised in comments on the Initial EA, and failed again to respond to the comments on the Revised EA. The agency’s failure to respond to these comments is an independent NEPA violation.

There is a potential for significant impacts to area watersheds, many of which are sensitive to disturbance or otherwise in poor condition. “Eight of the eleven watersheds within the analysis area are rated as being *most sensitive to anthropogenic disturbances*, and four are identified as having *high potential for salinity issues*.”²³⁸ In fact, “most stream systems [in the project area] currently fall into the *at-risk* or *diminished* classes,” in part because “[c]urrent and historical land use activities, including road building, logging, livestock grazing, and recreation have negatively affected most of the watersheds within the analysis area.”²³⁹

In sum, the Forest Service has admitted that the watersheds within the project area are sensitive, at-risk and susceptible to damage, but proposes to allow damaging activities to occur anyway. Because significant impacts may occur, the Forest Service must prepare an EIS.

The project may significantly impact wildlife. The Final EA failed to address the potential for impacts to Gunnison sage-grouse, a bird identified as threatened under the Endangered Species Act (“ESA”).

The Initial EA estimated that the project would involve 20,000 out-and-back logging truck trips, a figure omitted without explanation from the Revised and Final EAs.²⁴⁰ These trucks will likely travel on roads between the project area and a mill in Montrose that run within or adjacent to critical habitat for the Gunnison sage-grouse, or otherwise traverse habitat likely to be used by that bird. Highway 491 for virtually its entire length in Dolores County traverses sage-grouse critical habitat. In San Miguel County, Highway 141 cuts through the bird’s critical habitat, and Highway 62 in Ouray County forms a boundary of one critical habitat unit. In Montrose County, Highway 550 is close to other critical habitat units.²⁴¹

Initial EA at 29. The Initial EA, at 29, also states “The combinations of growing use, continuing drought, warming temperatures and increasing tree mortality have the potential to negatively affect watershed function, stability and resilience *to a great degree*.” *Id.* (emphasis added). The Final EA omitted this statement as well, without explanation.

²³⁷ Final EA at 21.

²³⁸ Final EA at 31 (emphasis in original).

²³⁹ Final EA at 34.

²⁴⁰ See Initial EA at 28.

²⁴¹ See U.S. Fish & Wildlife Service, Gunnison Sage-Grouse (Jan. 2013) (displaying population maps), attached as Ex. 27; Center for Biological Diversity, Map of Gunnison Sage-Grouse Critical Habitat (2019), attached as Ex. 28.

Increased truck traffic induced by the project on these and other routes may impact the Gunnison sage-grouse. The U.S. Fish and Wildlife Service’s latest species status assessment concludes that roads represent multiple threats to the sage-grouse, and San Miguel County is currently suing the Bureau of Land Management on the grounds that that agency failed to consider the impacts of increased vehicle traffic for oil and gas drilling could harm sage-grouse.²⁴² The U.S. Fish and Wildlife Service issued a biological opinion on a road project within Gunnison sage-grouse habitat this year which stated that vehicle strikes kill grouse.²⁴³

The Forest Service fails to address this issue at all. The Biological Assessment/Biological Evaluation made available for the project does not mention sage-grouse.²⁴⁴ And the Final EA’s glib response, that “[t]here is no habitat for Gunnison sage grouse in the Lone Pine Analysis Area,” ignores the nature of the threat the project – and the truck traffic it will induce – presents to grouse.²⁴⁵

The project has undisclosed/unknown socio-economic impacts. A primary purpose and need for the project is to “provide wood products for . . . commercial . . . uses,” and the project includes “commercial thinning” on more than 11,000 acres.²⁴⁶ The Final EA notes that at least one of the treatment types – sanitation logging – is proposed “primarily to recover value in green ponderosa pine trees that are currently infested and will likely die, not with the intent of stopping the progression of the current beetle outbreak.”²⁴⁷ The Final EA notes that “[t]he quantity of wood products available for commercial and non-commercial uses under the proposed action is much

²⁴² U.S. Fish & Wildlife Service, Species Status Assessment Report for the Gunnison Sage-Grouse (Apr. 2019) at 34 (identifying roads as cause of habitat degradation); *id.* at 41 (roads are a moderate stressor to species); *id.* at 44, 46-48 (same with respect to various sub-populations); *id.* at 56 (“The primary human influences on GUSG and their habitat are residential development, associated infrastructure and roads . . .”), attached as Ex. 29; U.S. Fish & Wildlife Service, 5-Year Review for Gunnison Sage-Grouse (Aug. 26, 2019) at 5-6 (identifying roads as a “current and potential future rangewide threat[]” to the grouse, and finding that roads and powerlines “influence habitat fragmentation and disturbance to GUSG, as well as cause direct mortality through strikes”), available at https://ecos.fws.gov/docs/five_year_review/doc6110.pdf (last viewed Oct. 15, 2019), and attached as Ex. 30. *See also* Complaint, *Board of County Commissioners of County of San Miguel v. U.S. Bureau of Land Management*, Docket 1:17-cv-02432-RPM (D. Colo. Oct. 10. 2017), attached as Ex. 31.

²⁴³ U.S. Fish & Wildlife Service, US 50 Little Blue Creek Canyon, Biological Opinion re: Gunnison sage-grouse (Mar. 11, 2019) at 14-15, attached as Ex. 32.

²⁴⁴ *See* San Juan National Forest, Biological Assessment/Evaluation for Threatened, Endangered, Proposed, and Sensitive Plant Species, Lone Pine Environmental Assessment (April 11, 2019) (project file).

²⁴⁵ Final EA, Appendix D at 22.

²⁴⁶ Final EA at 1, 15 (Table 1).

²⁴⁷ Final EA at 8.

higher than under the no action alternative because it allows for salvage harvest.”²⁴⁸ Despite these facts, the Final EA “dismissed” the issue of economics “from detailed analysis.”²⁴⁹

The potential for the Forest Service to profit from the logging of green trees appears to be another reason for the proposed action. “Proceeding with salvage harvests is a step toward building an economically and ecologically viable vegetation management program into the future. On balance, the combination of live and dead harvests *would provide funds for diverse multiple-use management on the district.*”²⁵⁰ Local workers would also profit, according to the Forest Service, though the level of that benefit is not disclosed.²⁵¹

The Final EA also appears to assert that subsidizing local milling capacity via this project will result in more logging *off* of National Forest lands in the area: “By making raw fiber available on federal lands, markets may be better able to support similar forest resiliency treatments on private, state, and tribal lands.”²⁵²

Despite the fact that supporting local industry is a project goal, that the Forest Service assumes such benefit will occur, and that the Forest Service projects that funds from the project will boost moneys available for other Forest management, the Final EA fails to contain any projections or quantification of the likely board-feet the project will make available to local mills, or the economic or socio-economic impacts of the project. This is the type of data that the Forest Service routinely discloses in timber project EISs.²⁵³ Because the Forest Service has detailed stand data for the project area, it would seem to be a relatively straightforward analysis.

The Forest Service responded to the Center’s comments on this issue by stating that the EA’s “analysis does not indicate any significant impacts from the proposed action that would require further analysis in an EIS.”²⁵⁴ But the EA dismissed the issue of economics without detailed analysis, so the agency’s response is circular: there are no significant economic impacts because (without data) we say so.

²⁴⁸ Final EA at 30.

²⁴⁹ Final EA at 65, 67.

²⁵⁰ Final EA at 67 (emphasis added).

²⁵¹ Final EA at 67 (“Local commercial and economic interests would be served because wood would be available to local entities such as mills. Workers involved in project implementation would spend money in local communities during their stay, regardless of whether they were local or not.”).

²⁵² Final EA at 67.

²⁵³ See, e.g., Forest Service, Notice of intent to prepare an Environmental Impact Statement, Central Tongass Project, 83 Fed. Reg. 39,402, 39,403 (Aug. 9, 2018) (disclosing that: “The Forest Service proposes to commercially harvest up to 9,500 acres (approximately 150 million board feet [MMBF]) of old-growth timber, and up to 4,000 acres (approximately 80 MMBF) of young-growth timber”).

²⁵⁴ Final EA, Appendix D at 22.

Because the project's economic impacts are a project *purpose*, and because those impacts may be significant, the Forest Service should prepare an EIS. At a minimum, the Forest Service must take a hard look at these impacts and quantify them in any subsequently prepared NEPA document. The Forest Service's failure to do either violates NEPA.

The project is highly controversial. Substantial uncertainty remains as to the project's nature and scope because of the potential for impacts outside the individual project areas, the potential to "switch" treatments within project areas, the potential for adaptive management to shift basal area targets, and the unknown location of roads, among other impacts. The Lone Pine project thus meets the definition of "highly controversial." Further, there remains uncertainty and dispute as to the project's impacts. The Forest Service admits that "a review of recent science does not provide a clear, science-based answer related to what the 'correct' treatment is, including whether or not green trees should be cut."²⁵⁵ The Forest Service's proposed prescriptions related to logging some large trees conflicts with that developed by the San Juan National Forest's earlier Ponderosa Pine Partnership. Scientific studies suggest that the project, together with other foreseeable impacts, may result in the loss of ponderosa pine within the project area, and Forest Service studies indicate that ponderosa pine and aspen may be lost in the project area within a few decades.²⁵⁶ But the Final EA continues to assert the project will lead to a diverse-aged forest able to resist future insect infestations. Thus, the effects of the Lone Pine project meet the "highly controversial" standard, requiring preparation of a full environmental impact statement.

Suggested Remedy: The Forest Service must prepare an environmental impact statement to disclose the impacts of the Lone Pine Project. In addition, any subsequently prepared NEPA document the Forest Service prepares must disclose socio-economic impacts, impacts to soils, and impacts to wildlife.

CONCLUSION.

The Center and San Juan Citizens Alliance hereby requests a meeting to discuss potential resolution of issues raised in this objection, pursuant to 36 C.F.R. § 218.11(a).

We hope that the Forest Service will use the objection process and such a meeting as opportunities to engage with stakeholders, including the Center and San Juan Citizens Alliance, to develop a project that is legally and ecologically sound.

²⁵⁵ Final EA at 9.

²⁵⁶ See Center Revised EA Comments (Ex. 3) at 29-31.

Sincerely,



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TABLE OF EXHIBITS

Exhibit 1.	Public Notice, Cortez Journal (Aug. 30, 2019)
Exhibit 2.	Letter of E. Zukoski, Center for Biological Diversity to D. Padilla, San Juan National Forest (Aug. 31, 2019)
Exhibit 3.	Letter of E. Zukoski, Center for Biological Diversity to D. Padilla, San Juan National Forest (July 15, 2019) (“Center Revised EA Comments”)
Exhibit 4.	<i>Southeast Alaska Conservation Council v. U.S. Forest Serv.</i> , Order Granting Motion for Preliminary Injunction, D. Ak. Case No. 1:19-cv-00006-SLG, Doc. 27 (Sep. 23, 2019)
Exhibit 5.	Letter of J. Buickerood, San Juan Citizens Alliance to D. Padilla, San Juan National Forest (July 15, 2019) (“SJCA Revised EA Comments”)
Exhibit 6.	Letter of J. Buickerood, San Juan Citizens Alliance to D. Padilla, San Juan National Forest (Mar. 22, 2019) (“SJCA Initial EA Comments”)
Exhibit 7.	S. Trombulak & C. Frissell, Review of ecological effects of roads on terrestrial and aquatic communities, <i>Conservation Biology</i> 14:18-30 (2000)
Exhibit 8.	The Wilderness Society, Transportation Infrastructure and Access on National Forests and Grasslands: A Literature Review (May 2014)
Exhibit 9.	Gucincki et al., <i>Forest Roads: A Synthesis of Scientific Information</i> , Forest Service General Technical Report PNW-GTR-509 (May 2001)
Exhibit 10.	USDA Forest Service, Final Environmental Impact Statement, Roadless Area Conservation Rule (Nov. 2000) (excerpts)
Exhibit 11.	San Juan National Forest, Lone Pine Vegetation Management Plan, Hydrology and Soils Report (2019?)
Exhibit 12.	San Juan National Forest, Lone Pine Vegetation Project, Draft Biological Evaluation/Biological Assessment (April 8, 2019)
Exhibit 13.	Email of B. Weinmeister, CPW to B. Magee, DNR (Oct. 8, 2019)
Exhibit 14.	Letter of E. Zukoski, Center for Biological Diversity to T. Bruch, San Juan National Forest (Mar. 24, 2019) (“Center Initial EA Comments”)
Exhibit 15.	San Juan National Forest, Motor Vehicle Use Map, Dolores Ranger District, Side 2 - Game Retrieval Area (June 1, 2019)

- Exhibit 16. San Juan National Forest, Motor Vehicle Use Map, Dolores Ranger District (June 1, 2019)
- Exhibit 17. T. Switalski and A., *Off-road vehicle best management practices for forestlands: A review of scientific literature and guidance for managers*, Journal of Conservation Planning, Vol 8 (2012)
- Exhibit 18. Four Forest Restoration Initiative, Old Growth Protection & Large Tree Retention Strategy (Sep. 13, 2011)
- Exhibit 19. U.S. Forest Service *et al.*, New Mexico Forest Restoration Principles (May 2006),
- Exhibit 20. Allen *et al.*, Ecological Restoration of Southwestern Ponderosa Pine Ecosystems: A Broad Perspective, Ecological Applications, 12(5) (2002)
- Exhibit 21. F. Hessburg, et al., *Restoring fire-prone Inland Pacific landscapes: seven core principles*, Landscape Ecology (2015) Vol. 30, 1805-1835
- Exhibit 22. D. Lynch, Forest Restoration in Southwestern Ponderosa Pine, Journal of Forestry (Aug. 2000)
- Exhibit 23. San Juan National Forest, Guard Station Timber Sale, Decision Notice (May 1996)
- Exhibit 24. San Juan National Forest, Ferris East Timber Sale, Decision Notice (Feb. 1998)
- Exhibit 25. BLM, Coeur D’Alene District Office, Pile Burning Program Programmatic Environmental Assessment (Feb. 2013)
- Exhibit 26. D.L. Six *et al.*, Management for Mountain Pine Beetle Outbreak Suppression: Does Relevant Science Support Current Policy?, *Forests*, Vol. 5, 103-133 (2014)
- Exhibit 27. U.S. Fish & Wildlife Service, Gunnison Sage-Grouse (Jan. 2013)
- Exhibit 28. Center for Biological Diversity, Map of Gunnison Sage-Grouse Critical Habitat (2019)
- Exhibit 29. U.S. Fish & Wildlife Service, Species Status Assessment Report for the Gunnison Sage-Grouse (Apr. 2019)
- Exhibit 30. U.S. Fish & Wildlife Service, 5-Year Review for Gunnison Sage-Grouse (Aug. 26, 2019)

- Exhibit 31. Complaint, *Board of County Commissioners of County of San Miguel v. U.S. Bureau of Land Management*, Docket 1:17-cv-02432-RPM (D. Colo. Oct. 10. 2017)
- Exhibit 32. U.S. Fish & Wildlife Service, US 50 Little Blue Creek Canyon, Biological Opinion re: Gunnison sage-grouse (Mar. 11, 2019)