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Re: Sixty-Day Notice of Intent to Sue for Violating the Endangered Species Act

Dear Secretary Nesvik, Chief Schultz, and Supervisors Sartorius and Sanchez:

The U.S. Forest Service ("Forest Service"), U.S. Fish and Wildlife Service ("USFWS"), and the officers and supervisors to whom this letter is directed (collectively, "the agencies") are hereby notified that WildEarth Guardians, the Forest Advocate, and the Santa Fe Forest Coalition (collectively, "Guardians") intend to bring suit challenging the agencies' failure to comply with Sections 7 and 9 of the Endangered Species Act ("ESA"), 16 U.S.C. §§ 1536 and 1538, with regards to the Santa Fe National Forest Land Management Plan Revision ("Revised Plan") and the Encino Vista Landscape Restoration Project ("Project").[1]

The Revised Plan Revision massively expands the scope of logging and vegetation management—as well as associated activities such as road construction and heavy equipment use—on the Santa Fe National Forest ("Forest"). These activities are harmful to a wide range of threatened and endangered species, and their critical habitat, yet the agencies almost entirely failed to consider the effects of, or even acknowledge, the commercial timber harvest that will be undertaken pursuant to the Revised Plan. Of particular concern are the impacts of logging on the threatened

[1] Guardians submitted extensive comments and objections on both the Revised Plan and the Project, repeatedly noting the harmful effects of extensive logging and burning on the salamander and spotted owl and the Forest Service's failure to adequately consider and disclose such impacts. *See* The Wilderness Society et al., *Comments on the Santa Fe National Forest Draft Land Management Plan and Draft Environmental Impact Statement* (Nov. 7, 2019) ("Plan Comments"); Guardians et al., *Santa Fe National Forest Plan Revision Objection* (Nov. 1, 2021) ("Plan Objection"); Guardians et al., *Re: Encino Vista Landscape Restoration Project Environmental Assessment* (April 15, 2024) ("Project Comments"); and Guardians et al., *Objections to Encino Vista Landscape Resiliency Project Environmental Assessment (Santa Fe National Forest) Pursuant to 36 C.F.R. § 218.8* (May 22, 2025) ("Project Objections"). These documents are hereby incorporated by reference in this Notice.

Mexican spotted owl (*Strix occidentalis lucida*), endangered Jemez Mountains salamander (*Plethodon neomexicanus*), and their designated critical habitats.

The Encino Vista Project, which implements the Revised Plan, is a troubling example of its aggressive vegetation management strategy. It authorizes extensive logging and burning, including in spotted owl and salamander habitat, but the agencies failed to appropriately consult regarding its effects on these species. Indeed, the agencies did not even complete formal consultation as to the Project's impact on the spotted owl, arbitrarily concluding that there would be no likely adverse effects. The harms that the Project is likely to inflict on spotted owls will thus constitute unlawful take, violating ESA Section 9 as well as Section 7.

Guardians intends to file suit on these violations after the statutory 60-day period has run unless the issues described in this notice are remedied.

LEGAL BACKGROUND

The ESA commands all federal agencies to "seek to conserve endangered species and threatened species and . . . utilize their authorities in furtherance of the purposes of" the Act. 16 U.S.C. § 1531(c)(1). Its purpose is to "provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, [and] to provide a program for the conservation of such endangered and threatened species[.]" *Id.* § 1531(b). The ESA is intended not just to forestall extinction, but to allow species to recover to the point where they may be delisted. Federal agencies are thus mandated to work towards recovery of protected species. *Id.* §§ 1532(3) (defining "conservation" to mean both survival and recovery of species), 1536(a)(1) (requiring agencies to work towards species' recovery). To implement these sweeping policy goals, the ESA imposes a series of interrelated substantive and procedural obligations on all federal agencies.

Section 7(a)(2) of the ESA imposes a substantive duty upon each federal agency to ensure that any action authorized, funded, or carried out by such agency is not likely to (1) jeopardize the continued existence of any threatened or endangered species, or (2) result in the destruction or adverse modification of the critical habitat of such species. *Id.* § 1536(a)(2). To "jeopardize the continued existence" of a species means to "engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing [its] reproduction, numbers, or distribution[.]" 50 C.F.R. § 402.02.

"Destruction or adverse modification" means "a direct or indirect alteration that appreciably diminishes the value of critical habitat for the conservation of a listed species." *Id.* (2018). In 2019, the USFWS amended this regulatory definition to read "a direct or indirect alteration that appreciably diminishes the value of critical habitat *as a whole* for the conservation of a listed species." *Id.* (2019) (emphasis added). In 2026, however, a federal court ruled that the narrowing language "as a whole" was contrary to the ESA's plain text. *Ctr. for Biological Diversity v. U.S. Dept. of the Interior*, No. 24-CV-04651-JST, 2026 WL 898264, at *17–18 (N.D. Cal. Mar. 30, 2026). The court therefore vacated the amended language and reinstated the long-standing previous definition, which prohibits "any adverse modification [of critical habitat], with no requirement that the adverse modification rise to a 'considerable level.'" *Id.* at *17; *see also id.* at

*24–25. This "prohibition on adverse modification is absolute." *Id.* at *18. Thus, federal agencies must ensure that their actions do not cause even "adverse modification to a small part of a species' habitat[.]" *Id.*

To implement this substantive provision, ESA Section 7 also imposes a procedural requirement obligating any federal agency proposing an action (the "action agency") to consult with—as relevant here—the USFWS to evaluate the proposed action's effects on every listed species present in the project area. 16 U.S.C. § 1536(a)(2). If the action agency determines that a proposed action "may affect" any listed species, it must prepare a biological assessment ("BA") analyzing the proposal and its potential impacts, and consult with the USFWS. 16 U.S.C. § 402.12. Both direct and indirect impacts are relevant to this determination. 50 C.F.R. § 402.02.

Where a proposed action's only effects will be discountable, insignificant, or wholly beneficial to the species and its habitat, it is deemed "not likely to adversely affect" the listed species or adversely modify its critical habitat. *See* 50 C.F.R. § 402.12; U.S. Fish & Wildlife Serv. & Nat'l Marine Fisheries Serv., *Procedures for Conducting Consultation and Conference Activities under Section 7 of the Endangered Species Act* at xv–xvi (1998) ("Consultation Handbook"). Beneficial effects are "contemporaneous positive effects without any adverse effects to the species." Consultation Handbook at xv. The significance or insignificance of an effect relates to the size of its impact and should never reach the scale where take occurs. *Id.* at xvi. A discountable effect is one that is "extremely unlikely to occur. Based on best judgment, a person would not: (1) be able to meaningfully measure, detect, or evaluate insignificant effects; or (2) expect discountable effects to occur." *Id.*

If the action agency determines that the proposal will have only discountable, insignificant, or beneficial effects on the listed species, and the USFWS issues a letter of concurrence with that determination ("LOC"), the consultation is complete. 50 C.F.R. §§ 402.12, 402.14(b) (detailing "informal" consultation requirements). However, if the agencies conclude that the proposal is likely to adversely affect the listed species, the USFWS must prepare a biological opinion ("BiOp") to determine whether the activity will jeopardize that species' continued existence. *Id.* § 402.14. The BiOp must include a summary of the information on which it is based, a detailed discussion of the effects of the action on listed species or critical habitat, and the USFWS's opinion on whether the action is likely to jeopardize the survival and recovery of the species or result in destruction or adverse modification of critical habitat. 16 U.S.C. § 1536(b)(3)(A); 50 C.F.R. § 402.14(h).

In making its jeopardy determination, the USFWS must consider "all relevant information" available. 50 C.F.R. 402.14(g). It must evaluate the species' current status and environmental baseline, the effects of the action, and all cumulative effects on the species or habitat. *Id.* The USFWS must then "[a]dd the effects of the action and cumulative effects to the environmental baseline and in light of the status of the species and critical habitat," determine whether the proposed action is likely to jeopardize the species or adversely modify its critical habitat. *Id.*

If the USFWS concludes that the proposed action will not result in jeopardy but may take members of a protected species, it will provide the action agency with an incidental take statement ("ITS"). Take "means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to

attempt to engage in any such conduct," 16 U.S.C. §§ 1532(19), 1538(a)(1). "Harm," in turn, encompasses "significant habitat modification or degradation." 50 C.F.R. § 17.3. Section 9 of the ESA prohibits take of threatened and endangered animals; this prohibition extends to incidental takings, which "result from, but are not the purpose of, carrying out an otherwise lawful activity." *Id.* § 402.02.

An ITS shields the action agency from liability under Section 9 for incidental take resulting from the proposed action—as long as the agency complies with its terms. 50 C.F.R. §§ 402.02; 4102.14(i). An ITS must articulate: (1) the amount of incidental take authorized and its impact on the species; (2) "reasonable and prudent measures" to minimize such impacts; and (3) mandatory terms and conditions to implement the reasonable and prudent measures. 16 U.S.C. §§ 1536(b)(4)(i)–(iv). If the action agency fails to implement the terms and conditions, or exceeds the level of take identified in the ITS, it becomes liable under Section 9 for any subsequent take resulting from its actions and must reinitiate consultation with the USFWS. 16 § 1536(2)(B)(3), (4); 50 C.F.R. § 402.14(g)(7).

The ITS should, whenever practical, express take as a specific cap on the number of individual members of a species taken. The USFWS may instead employ a take surrogate—a way of defining take by the amount of adversely affected habitat rather than by the number of individuals harassed or harmed—in certain defined circumstances. *See* 50 C.F.R. § 402.14(i)(1)(i). The agency must describe "the causal link between the surrogate and take of the listed species." *Id.* A "causal link" is an articulated, rational connection between the activity and the taking of species. The take surrogate must also set "a clear standard for determining when the level of anticipated take has been exceeded." 50 C.F.R. § 402.14(i)(1)(i). This last requirement is necessary to determine whether the agencies must reinitiate consultation on the action.

After consultation is initiated or reinitiated, ESA Section 7(d) prohibits the action agency from "mak[ing] any irreversible or irretrievable commitment of resources" toward a project that would "foreclos[e] the formulation or implementation of any reasonable and prudent alternative measures[.]" 16 U.S.C. § 1536(d). The ESA Section 7(d) prohibition "is in force during the consultation process and continues until the requirements of section 7(a)(2) are satisfied." 50 C.F.R. § 402.09.

The USFWS is not permitted to base its compliance with the ESA on speculation or surmise. Instead, it must "use the best scientific and commercial data available" in assessing impacts to protected species during the consultation process. 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.14(d).

Strict compliance with these procedural duties is necessary for an agency to fulfill its substantive duties, and for the ESA to fulfill its fundamental purposes. Without accurate, detailed, and current consultation on its actions, an agency may unwittingly push vulnerable species past the point of recovery. An action agency cannot satisfy its duty to avoid jeopardy or adverse habitat modification simply through compliance with a BiOp—it has an independent duty to ensure that its reliance is not arbitrary or capricious. Without accurate, detailed, and current consultation on its actions, an agency may unwittingly push vulnerable species past the point of recovery.

FACTUAL BACKGROUND

I. The At-Risk Species

The Santa Fe National Forest and the Encino Vista Project area support a number of threatened, endangered, and sensitive wildlife species, relevantly including the Jemez Mountains salamander and the Mexican spotted owl.

a. The Jemez Mountains salamander

The endangered Jemez Mountains salamander has inhabited the Jemez Mountains for as long as 1.2 million years, and is found only around the rim of and inside the Valles Caldera at the Forest's center. *See* 78 Fed. Reg. 55,600, 55,601 (Sept. 10, 2013). Most of the salamander's extremely limited range and designated critical habitat is on the Forest. *See* U.S. Fish & Wildlife Serv., N.M. Ecological Serv. Field Off., *Species Status Assessment Report for the Jemez Mountains Salamander (*Plethodon neomexicanus*)* at 57 (April 1, 2026) ("Salamander SSA"). The species was originally listed as endangered in 2013, primarily due to habitat loss, degradation, and fragmentation; all occupied salamander habitat has been impacted by fire suppression and exclusion, severe wildfires, road construction and use, and logging. 78 Fed. Reg. at 55,609–21.

The salamander spends much of its life underground, but can be found on the surface when environmental conditions are relatively warm and wet; this is typically from July through September, but occasional salamander observations have been made in May, June, and October. 78 Fed. Reg. at 55,601. When active above ground, the species is usually found in or beneath decaying logs and stumps, rocks, bark, or moss mats. *Id.* The USFWS has identified the features and habitat characteristics required to sustain the salamander as including "[m]oderate to high tree canopy cover, typically 50 to 100 percent canopy closure, that provides shade and maintains moisture and high relative humidity at the ground surface" and "[m]oderate to high volumes of large fallen trees and other woody debris … in varying stages of decay[.]" 78 Fed. Reg. 69,569, 69,580–81 (Nov. 20, 2013); *see also* Raymond D. Semlitsch et al., *Effects of Timber Harvest on Amphibian Populations: Understanding Mechanisms from Forest Experiments*, 59 BIOSCIENCE 853, 859–60 (Nov. 2009) (advising that timber harvests that "remove more than 40% to 50% of the canopy should be minimized or eliminated" in sensitive amphibian habitat). The salamander predominantly inhabits mixed-conifer forest, although individuals have occasionally been observed in Ponderosa pine, spruce-fir, and aspen stands. 78 Fed. Reg. at 55,602; *see also* 78 Fed. Reg. at 69,580. The species prefers mature forests and is generally not found in early-seral or recently disturbed areas.

Unfortunately for the salamander, much of its habitat is in lands suitable for timber production and slated to be heavily logged under the Revised Plan. *See* SSA at 57–58. Logging—specifically, heavy thinning, regeneration logging, or gap creation—can remove necessary habitat components such as large logs and decaying stumps; compact or erode the soil where salamanders spend most of their lives; and change the damp, cool microclimate on which the species depends by reducing canopy closure, ground cover, and leaf litter. *See*, *e.g.*, 78 Fed. Reg. at 55,601, 55,604–06, 55,609–10, 55,615–17; Salamander SSA at 51–54; Douglas Harpole & Carola Haas, *Effects of Seven Silvicultural Treatments on Terrestrial Salamanders* 349, 354 FOREST ECOLOGY & MGMT. 114

(Feb. 1999) (finding significant reductions in salamander population after group-selection or shelterwood logging, and noting that salamander fitness may suffer due to increased caloric needs when habitat becomes warmer or dryer); David Marsh & Noelle Beckman, *Effects of Forest Roads on the Abundance and Activity of Terrestrial Salamanders* 1882–91 ECOLOGICAL APPLICATIONS 14 (2004); Alison E. Ochs et al, *Response of Terrestrial Salamanders to the Decade Following Timber Harvest in Hardwood Forests* at 6–7, FOREST ECOLOGY & MGMT. 511 (March 25, 2022) (smaller gaps did not mitigate negative logging impacts); James Petranka et al., Effects of *Timber Harvesting on Low Elevation Populations of Southern Appalachian Salamanders*, 67 FOREST ECOLOGY & MGMT. 135–47 (Aug. 1994); Joseph Tilghman et al., *Meta-analysis of the Effects of Canopy Removal on Terrestrial Salamander Populations in North America*, BIOLOGICAL CONSERVATION 152 (Aug. 2012) (logging of all kinds produced population declines up to 62%). These impacts can be particularly dramatic in warmer, dryer climates. *See* Tilghman (2012) at 6; *see also* Phillip G. deMaynadier and Malcolm L. Hunter, Jr., *The Relationship between Forest Management and Amphibian Ecology: A Review of the North American Literature* 230, 237–38 ENVIRONMENTAL REVIEWS 3 (1995).

Although researchers agree that clearcuts inflict the greatest harm to salamanders and their habitat, all logging activities that reduce canopy cover are likely to have adverse effects on the species, and some studies have found that heavy thinning or group selection techniques can be nearly as destructive as "regeneration" or other even-age logging methods. *See* Jeffrey Duguay & Petra Wood, Salamander Abundance in Regenerating Forest Stands on the Monongahela National Forest, West Virginia, 331, 334 Forest Science 48 (May 2002); Harpole & Haas (1999) at 354–55 (noting that repeated but less-intense treatments may have greater overall impact on salamanders than one-time clearcut treatments, and concluding that "terrestrial salamander populations significantly decline within 3 years after even partial removal of the forest canopy" in warmer and dryer sites); Daniel Hocking et al., *Comparison* of *Silvicultural and Natural Disturbance Effects on Terrestrial Salamanders in Northern Hardwood Forests* 194, 194–95, 198–200, 167 BIOLOGICAL CONSERVATION (2013) (all types of logging adversely impacted salamanders, and effects extend up to 50 meters into forest); Jessica Homyack & Carola Haas, *Long-term Effects of Experimental Forest Harvesting on Abundance and Reproductive Demography of Terrestrial Salamanders*, 110, 119 BIOLOGICAL CONSERVATION 142 (Jan. 2009); Shannon Knapp et al., Initial *Effects of Clearcutting and Alternative Silvicultural Practices on Terrestrial Salamander Abundance*, 17 CONSERVATION BIOLOGY 752, 759–61 (June 2003) (same); Jami MacNeil and Rod Williams, *Effects of Timber Harvests and Silvicultural Edges on Terrestrial Salamanders* at 18, PLOS ONE (Dec. 17, 2014) ("Our results show group cuts have a negative effect similar to that of clearcuts[.]"); Christopher Moorman et al., *Reptile and Amphibian Response to Hardwood Forest Management and Early Successional Habitats* 191, 192–93, 195, 198 in SUSTAINING YOUNG FOREST COMMUNITIES (2011) ("[R]eductions in canopy cover by as little as 41% can cause local declines in salamander abundance."); Tilghman et al (2012) at 8 ("[W]ith partial [canopy] removal, short-term reductions in salamander abundance of approximately 50% can be expected[.]"). Even relatively small gaps in canopy cover can be highly detrimental to salamander populations in the immediate vicinity of the logging, because salamanders cannot move any significant distance to avoid the disturbances. *See* Tilghman et al (2012) at 7.

The road construction and reconstruction and use of heavy machinery required for commercial logging also have substantial negative impacts on the salamander and its underground habitat

through erosion, disturbance, and compaction. *See*, *e.g.*, 78 Fed. Reg. at 55,614 (discussing use of heavy equipment in mechanical vegetation treatments), 55,616–19 (discussing negative impacts of roads on salamander and specifically identifying logging roads as a threat to the species); *see also* Moorman et al. (2011) at 192–93; Alison Ochs et al., *A Comprehensive Review of the Effects of Roads on Salamanders* 77, 83 LANDSCAPE ECOLOGY 39 (March 2024). Roads and logging sites can also fragment habitat and populations or act as barriers to movement or expansion; because salamanders have small home ranges and cannot move long distances, habitat degradation (even on a relatively small scale) and loss of connectivity can have profound population-level impacts. 78 Fed. Reg. at 55,602; *see also* deMaynadier and Hunter (1995) at 233, 244–45 ("[S]mall-scale habitat disturbances may have important impacts on local [salamander] populations."); Tilghman et al (2012) at 7. It is unknown how long it may take salamander populations to rebound after a disturbance—estimates can range from 20 to 100 years—but repeated interventions that continue to reduce canopy cover or ground cover may indefinitely delay recovery. *See* Homyack and Haas (2009); Moorman et al. (2011) at 194.

The lack of systematic surveys across the species' range, compounded by the difficulty of detecting salamanders when present, has made reliable estimates of population size or trends difficult. *See* Salamander SSA at 19–22. However, significant declines in salamander observations since the 1970s strongly suggest that the population is similarly in decline. *See id.* at 22; 78 Fed. Reg. at 55,604. Researchers, including USFWS personnel, routinely flag the need for more information on salamander populations, the impacts of management activities, particularly logging and prescribed burning, and best management practices that may mitigate such impacts. *See*, *e.g.*, 78 Fed. Reg. at 55,605–06, 55,609–10; Alison Ochs et al., *Population-level Effects of Prescribed Fires on Terrestrial Salamanders* at 2, 8, FOREST ECOLOGY & MGMT. 560 (March 22, 2024). The USFWS has acknowledged that it does not fully understand the impacts of vegetation and fuels treatment on the species or how to mitigate adverse effects, and it has not developed a recovery plan for the salamander.

No salamander surveys have occurred in the Project area since 2014, nor does the Forest Service intend to survey before implementing the Project. *See* Project BA at 20.

b. The Mexican spotted owl

The elusive Mexican spotted owl was listed as threatened in 1993 due to extensive habitat loss and degradation caused primarily by commercial logging. See 58 Fed. Reg. 14,248, 14,259 (Mar. 16, 1993). The Santa Fe National Forest falls within the species' Southern Rocky Mountains Ecological Management Unit ("SRM EMU"), provides 198,888 acres of critical habitat for the owls, and supports a large portion of the species' regional population. U.S. Fish & Wildlife Serv., *Mexican Spotted Owl Recovery Plan*, *First Revision* at 9 (2012) ("MSO Recovery Plan"). The owl has been extirpated from low-elevation riparian forests in Arizona and New Mexico. The entire United States population is estimated at under 2,100, MSO Recovery Plan at 6, although population estimates are considered unreliable and the USFWS has noted that an apparent increase in owl abundance is due to new areas being surveyed rather than an actual population increase. U.S. Fish & Wildlife Serv., N.M. Ecol. Serv. Field Off., *Biological Opinion for the Santa Fe National Forest Land Management Plan Revision* at 16 (Aug. 23, 2021) ("Plan BiOp"). The spotted owl, found in forested mountains and canyonlands throughout the Southwest, requires

mature or old-growth stands with high canopy cover, complex structure, large standing snags, and adequate vegetative cover to support healthy populations of prey species. Santa Fe National Forest Land Management Plan, Final Environmental Impact Statement, Vol. 1 at 41, 122, 290 (July 2022) ("FEIS"). Under the Revised Plan, a great deal of the interlocking canopy cover and large trees mandatory for owl habitat have been designated for thinning and commercial timber harvest.

Mexican spotted owls rely on thickly forested landscapes with at least 40–60% canopy cover for both nesting and foraging. *See* Seamans and Gutierrez, *Sources of variability in spotted owl population growth rate: testing predictions using long-term mark-recapture data*, 152 OECOLOGIA 57 (1995) (mean roosting habitat requires canopy closure of 85%, nesting habitat 75%); Ganey et al., *Mexican Spotted Owl Home Range and Habitat Use in Pine-Oak Forest: Implications for Forest Management*, 45 FOREST SCIENCE 127 (1999) (owls avoid foraging in stands with less than 40% canopy closure, especially during breeding season); May & Gutierrez, *Mexican Spotted Owl nest and roost site habitat in northern Arizona*, 68 J. WILDLIFE MGMT. 1054 (2004) (nest and roost sites were greater in areas with greater canopy closure and more mature and old-growth basal area); Wan et al., *Managing emerging threats to Spotted Owls* 82 J. WILDLIFE MGMT. 682 (2018) (canopy coverage is the most important covariate in MSO habitat selection). All logging activities that reduce canopy cover are likely to have adverse effects on the species. Heavy thinning, regeneration logging, gap creation, and prescribed burning can drastically change both the canopy closure required for nesting and the ground cover and leaf litter that support prey species used for forage and hide fledgling owls from predators.

Any reduction in the number of old, large, or decaying trees will also have adverse effects. Mexican spotted owls rely on the availability of old trees with inner core decay. U.S. Fish & Wildlife Serv., AZ Eco. Serv. Off., *Mexican Spotted Owl (*Strix occidentalis lucida*) 5-Year Status Review* at 41 (Jul. 8, 2023). In New Mexico, owls preferentially occupy sites with mature mixed-conifer and pine forests and prefer nesting in trees with a diameter at breast height ("dbh") greater than 18" or, preferentially, above 24". *See* Peery et al., *Habitat Composition and Configuration around Mexican Spotted Owl Nest and Roost Sites in the Tularosa Mountains, New Mexico* 63 J. WILDLIFE MGMT. 36 (1999); Ganey et al., *Demography of Mexican Spotted Owls in the Sacramento Mountains, New Mexico* 78 J. WILDLIFE MGMT. 42 (2013). Researchers advise the retention of low-canopy shrub and herbaceous vegetation to support owl prey spp. Block et al., *Prey ecology of Mexican Spotted Owls in pine-oak forests of northern Arizona*, 69 J. WILDLIFE MGMT. 618 (2005). In the Jemez Mountains where the Revised Plan and Project sites are located, past studies have found that Mexican Spotted Owls prefer diverse, dense habitat with tall trees, high shrub density, and high canopy cover. *See* Hathcock & Haarmann, *Development of a predictive model for habitat of the Mexican Spotted Owl in northern New Mexico*, 53 SW. NATURALIST 34 (2008). Fragmentation effects from road creation, disturbance and noise from hand- and mechanical thinning, and smoke from prescribed burning is also likely to deter these owls from natural nesting and foraging behavior. The only Forest Service report on the effects of mechanical thinning and prescribed burns on owl populations, performed in the Coconino National Forest from 2017–2023, indicated that in the two years post-treatment, owls had less presence in the treated areas, fewer and harder to find nesting sites, and no successfully fledged young. U.S. Forest Serv., Coconino Nat'l For., *Four Forest Restoration Initiative (4FRI): Mexican Spotted Owl (*Strix occidentalis lucida*) Monitoring Report* (2023),

https://www.fs.usda.gov/sites/nfs/files/r03/publication/4fri-mso-annual-report-2023.pdf (Attachment A).

The USFWS has admitted that the SRM EMU of owl population is "the one for which [they] have the least information regarding owl and habitat distribution." MSO Status Review at 4. Likewise, many researchers have urged the collection of more data on the effects of fuels management decisions before taking action. *See* Wan et al. (2018). The 2023 MSO Status Review stated that "the effects of different severities of wildland fire on Mexican spotted owls are still poorly understood" and that forest thinning prescriptions and the effects of smoke should be studied further. MSO Status Review at 99.

The Forest contains 198,888 acres of designated owl critical habitat, 61 protected activity centers ("PACs") encompassing roughly 41,383 acres, and "varying degrees of recovery habitat within mixed conifer forests." U.S. Forest Serv., *Biological Assessment for the Revision of the Santa Fe National Forest Land and Resource Management Plan* at 66–68 (Aug. 6, 2020) ("Plan BA"); Plan BiOp at 27. Half of all PACs are on the Jemez Ranger District. *See* Plan BA at 68.

Much of the available scientific information, and indeed USFWS's own species recovery plan, disagrees with the logging of large trees on Plan sites. Habitat loss and fragmentation are well understood to form the main threats to the owl's persistence and recovery. MSO Status Review at 6; Ho Yi Wan et al., *Habitat Fragmentation Reduces Genetic Diversity And Connectivity Of The Mexican Spotted Owl: A Simulation Study Using Empirical Resistance Models*, 9 GENES 403 (2018). For the New Mexico owl population in particular, scientists argue that the best protection from the effects of climate change includes retaining patches of older forest with high canopy cover. Joseph L. Ganey et al., *Annual Climate Change In Mexican Spotted Owl Habitat In The Sacramento Mountains, New Mexico: Implications For Responding To Climate Change*, 91 J. FIELD ORNITHOL. 225–40 (2020). The 2012 MSO Recovery Plan indicates that the Mexican spotted owl requires a "minimum canopy coverage of 40% in [ponderosa pine forest] and 60% in [mixed conifer forest]," a minimum basal area of 30% deriving from trees > 18" dbh, and at least 12 trees per acre of dbh > 18". Revised MSO Plan at 48–49; *see also* MSO Status Review at 7–8. The Revised Plan does not indicate how these variables will be inventoried, monitored, restored, retained, conserved, or protected. Anything less fails to support, and indeed actively harms, this threatened species.

II. The Santa Fe National Forest Land Management Plan Revision

Pursuant to the National Forest Management Act, the Forest Service must "develop, maintain, and, as appropriate, revise" land management plans with which all subsequent agency management decisions must comply.[2] 16 U.S.C. § 1604(a). Plans guide management of the National Forests so that they are "ecologically sustainable and … consist of ecosystems and watersheds with

[2] Forest plans must include a number of specific components including standards, guidelines, and desired conditions. "Standards" are binding and must be followed precisely. FEIS Vol. 2 at 140. In contrast, the Forest Service may deviate from "guidelines" if it can show how its chosen course of action achieves the guideline's purpose at least as well as strict adherence would. "Desired conditions" describe the specific characteristics of the plan area toward which management should be directed. *Id.* at 124. The Revised Plan also includes non-mandatory "management approaches," but these are neither specific nor binding enough to demonstrate compliance with any legal requirement.

ecological integrity and diverse plant and animal communities[.]" 36 C.F.R. § 219.1(c). Among other requirements, a plan must contain provisions to ensure that each National Forest maintains "the ecological conditions necessary to: contribute to the recovery of federally listed threatened and endangered species, conserve proposed and candidate species, and maintain a viable population of each species of conservation concern within the plan area." *Id*. § 219.9(b)(1); *see also id.* § 219.8(a) (plans must include provisions "to maintain or restore the ecological integrity of terrestrial and aquatic ecosystems"); 16 U.S.C. § 1604(g)(3)(B) (plans must "provide for diversity of plant and animal communities").

a. The Revised Plan

The Santa Fe National Forest revised its land management plan in 2022.[3] U.S. Forest Serv., *Santa Fe National Forest Land Management Plan* (July 2022). The Revised Plan incorporates several dramatic changes from the previous 1986 Forest Plan, notably including:

- A 150% increase in commercial logging;
- A 9% expansion in the area considered "suitable" for timber harvest;
- Substantial increases in prescribed fire and "fuels reduction" activities
- Increased road use, repair, and construction;
- Elimination of designated "management areas" with specific limits on and directions for management activities;
- Designation of nearly the entire Forest as available for private livestock grazing; and
- New "desired conditions" for forest structure and vegetative communities.

U.S. Forest Serv., Record of Decision for the Santa Fe National Forest Land Management Plan ("ROD") at 14–17 (July 2022); *see also* FEIS Vol. 1 at 404; Guardians et al., *Santa Fe National Forest Plan Revision Objections* (Nov. 1, 2021).

The Revised Plan sets desired conditions for "ecological response units" such as ponderosa pine forests ("PPF"), dry mixed conifer ("MCD"), mixed conifer with aspen ("MCW"), spruce-fir forests ("SFF"), and Piñon-Juniper Woodlands ("PJO"). For the majority of the Forest, these new desired conditions entail significantly lower canopy cover and more open conditions, which the Forest Service intends to achieve through its dramatically stepped-up logging and burning program. The Forest Service is somewhat vague as to the basis for its desired conditions, which it sometimes conflates with the historic range of natural variability but elsewhere states are not necessarily reflective of historic conditions.

In general, although the Forest Service acknowledges that some forested ERUs (specifically, MCW, SFF, and PJO) have not been significantly impacted by historic fire suppression, and should in fact be denser, with larger stands and bigger trees, the Revised Plan favors sparser forests with fewer trees. Notably, the Revised Plan does not preclude logging big or old trees in any ERU or

[3] NFMA instructs the Forest Service to revise its plans every 15 years. However, the 36 years between the 1986 and 2022 Santa Fe National Forest plans is typical of the actual timeline for such revisions. It is therefore reasonable to assume that the Revised Plan will govern management on the Forest for decades to come.

offer other specific protections for old growth and old-growth-dependent species such as the spotted owl.

The Revised Plan also substantially increases the amount of forestland considered "suitable" for timber harvesting. *See* ROD at 15. As required by NFMA, the Revised Plan identifies areas where "timber production would not be compatible with the achievement of desired conditions and objectives" or timber harvest cannot be done "without causing irreversible damage to soil, slope, or other watershed conditions." 36 C.F.R. 219.11(a). But the Revised Plan does not explain how conditions have changed such that intensive commercial logging is now appropriate on lands previously considered too sensitive or otherwise unsuitable. Moreover, the Revised Plan contemplates a massive expansion of logging on lands it acknowledges are not actually suitable for timber production. Over the next two decades, the Forest Service plans to log 40.3 million cubic feet of sawtimber (defined as logs > 9" dbh) and another 12.4 million cubic feet of smaller (5–9" dbh) trees from lands where timber production is not appropriate. *See* FEIS Vol. 1 at 404. The Forest Service generally asserts that this extensive logging on lands designated as unsuitable for logging will be done for restoration or fuels reduction purposes.

The Revised Plan as a whole strongly emphasizes the purported need to reduce the risk of uncharacteristically intense wildfire behavior through intensive logging and burning. The Forest Service's analysis of the Revised Plan's impacts to at-risk species depends almost entirely on the assumption that extensive habitat modification is needed to prevent obliteration in a high-severity wildfire. *See*, *e.g.*, FEIS, Vol. 1, p. 247. The agency therefore discounted all negative effects of its chosen course of action as "short-term" and minor relative to the threatened total loss of forest habitat through wildfire.

b. The Revised Plan consultation

As required by the ESA Section 7, the Forest Service considered the impacts of the Revised Plan on the Mexican spotted owl and the Jemez Mountains Salamander. It ultimately determined that implementation of the Revised Plan was likely to adversely affect both species, prompting formal consultation with the USFWS.[4] Plan BiOp at 4–6; *see also* Plan BA. The USFWS, in turn, issued a biological opinion agreeing that Plan implementation was likely to adversely affect the listed species but would not jeopardize their continued existence or adversely modify critical habitat. Plan BiOp at 45–47.

1. Mexican spotted owl

The agencies identified the relevant threats to the spotted owl as including "commercial timber harvest, wildland fire and fire management, fuelwood harvest, livestock grazing, … recreation, road building and reconstruction, and other human developments and activities." Plan BA at 68. The Forest Service acknowledged that "[t]imber-harvest practices in the Southwestern Region

[4] The Revised Plan will also impact a host of other threatened, endangered, candidate, and sensitive species that are not known to occur in the Project area, are not yet protected by the ESA, and/or are not primarily threatened by the vegetation management activities at issue here. *See* FEIS Vol. 1 at 225–26. The Revised Plan's potentially adverse effects on, and the adequacy of the Forest Service's conservation efforts or ESA consultation regarding these species is therefore beyond the scope of this Notice.

were cited as the primary factors threatening the continued existence of the owl," but asserted that "[t]imber is not a major industry in the Santa Fe NF, partly due to fewer large trees of commercial value."[5] *Id.*

The Plan BA and BiOp purported to discuss the "Effects of Vegetation Management and Fire and Fuels" on the owl and its habitat. *Id.* at 69–72; Plan BiOp at 35–36. The agencies noted the intent that 72% of MCD and 83% of PPF be converted to open conditions (10–30% canopy cover) and stated that "280,000 to 350,000 acres of restoration work" would occur over the next decade. Plan BA at 70; Plan BiOp at 35. However, neither of the agencies' effects analyses actually addressed the impact of bringing the majority of the owl's potential habitat well below the minimum levels of canopy cover the species needs. Instead, they focused almost exclusively on the hope that "could, over the long term, reduce uncharacteristic wildfire and the associated risk of substantial or complete loss of areas providing MSO PAC and Recovery habitat." Plan BA at 72; *see also* Plan BiOp at 35–36. The Plan BA did not identify the likelihood of all owl habitat being removed by uncharacteristic wildfire absent such aggressive "restoration" work, or compare it to the amount of habitat that will be removed under the Revised Plan—indeed, neither the BA nor the BiOp actually quantified the amount of potential or actual spotted owl habitat Plan implementation would remove. *See id.*

Instead, the agencies described the only negative impacts of logging and burning as "short term impacts" "associated with burning" such as equipment, personnel, smoke, and removal of snags and trees—although the Forest Service hastened to add that wildfire would be much worse. Plan BA at 72; Plan BiOp at 36. The agencies noted that road maintenance activities could disturb spotted owls and that new road construction could fragment habitat, but did not link road use, maintenance, or construction to vegetation management. Plan BA at 74; Plan BiOp at 37.

The USFWS's entire effects analysis of critical habitat elements related to forest structure[6] is as follows:

> All program areas are likely to impact regeneration of woody species and herbaceous plant prey habitat. Most are likely to impact forest canopy cover and snag persistence through burning or thinning to some level. While individual projects may have short-term negative effects, the better long-term forest health is expected to be beneficial for the owl.

Plan BiOp at 38. Similarly, the Forest Service stated that "Wildland Fire Management" and "Ecosystem/Vegetation Health (Forest Products)" would both impact these habitat elements due to the "Potential to reduce uncharacteristic wildfire; also prescribed burning potential to reduce snags, woody species regeneration, canopy cover, and herbaceous prey habitat," but did not acknowledge that "Forest Products" might have any negative impacts on critical habitat. Plan BA

[5] For reference, the Forest reported historically producing an annual 5.5 MMBF of timber compared to the Carson National Forest, which produced 1.35 MMBF, and the Cibola National Forest, which produced 5.46 MMBF. U.S. Forest Serv., *Regional Forester's Briefing: Carson, Santa Fe, and Cibola National Forests Land Management Plans* at 14, 27, 39 (May 24, 2021). Their revised Land Management Plans contemplate future annual logging of 14.6 MMBF, 15.85 MMBF, and 5.29 MMBF, respectively. *Id.*

[6] The primary elements of which include stands of mixed conifer with at least 30 to 45% of trees greater than 12" dbh, a minimum of 40% canopy cover, large snags, and high volumes of woody debris. BiOp at 17.

at 80. The Forest Service also stated in passing that "vegetation management," including wildfire, prescribed fire, fuelwood collection, fire suppression, and thinning, could have short-term impacts such as "change in stand structure which may impact nesting and foraging habitat." *Id.* at 81. It did not explain how achievement of desired conditions (an open stand structure) could be considered only a short-term impact, or elaborate on those potential impacts. However, the agency did suggest that vegetation management would actually "benefit MSO and prey habitat by providing an open stand with various structural stages." *Id.* at 82.

The Plan BiOp also contains a two-paragraph "cumulative effects and climate change" analyses. *See* stating that "Timber harvest, prescribed burning activities, and livestock grazing occur on the adjacent nonfederal lands. The PACs adjacent to or within about 300 feet of adjacent to private land may be subject to disturbance associated with residential, business, livestock grazing, and other activities."

The Plan BA states generically that "[n]o specific conservation actions have been implemented … on the Santa Fe; however, a Forest Plan *guideline* requires that project activities and special uses occurring within federally designated critical habitat *should* integrate habitat management objectives and species protection measures from the most recent approved U.S. Fish and Wildlife Service (USFWS) recovery plan." Plan BA at 69 (emphases added).

The USFWS concluded that Plan implementation would not jeopardize the the spotted owl or adversely modify its critical habitat. Plan BiOp at 45. It based this conclusion on the following:

> 1. Implementation of the management direction within the revised LMP will allow the Forest to manage for owl recovery and implement the [spotted owl Recovery Plan].
> 2. The LMP [desired conditions, objectives, standards, and guidelines] recognize the need to reduce the potential for landscape level, stand-replacing fire in ponderosa pine and mixed conifer forests that the owl occupies. Implementation of these components will improve forest condition and sustainability, and reduce the risk of high severity fire and the loss of owl habitat.
> 3. While some short-term adverse effects or consequences may occur as part of implementing the management direction within the revised LMP, the components will help to minimize them and over the long-term, forest health and resiliency are expected to improve, benefitting the owl.

Id.

The agencies did not mention *any* long-term impacts or *any* impacts from logging. Nor did they acknowledge the Forest Service's intent to massively increase commercial logging (by 150%) under the Revised Plan, much less discuss what this might mean for the spotted owl.

2. Jemez Mountains salamander

The agencies described the primary threats to the salamander and its habitat as including "habitat loss from severe wildfire or other activities that alter hydrology and disease including chytrid fungus." Plan BA at 22; Plan BiOp at 28. They stated that salamander habitat should be protected from "large-scale, stand-replacing wildfire; actions that would disturb salamander habitat by warming and drying the ground; actions that reduce the availability of aboveground cover objects including downed logs; or actions that would compact or disturb the soil[.]" Plan BA at 84, 85 (defining primary constituent elements of critical habitat to include forest with "50 to 100 percent canopy closure, that provides shade and maintains moisture and high relative humidity at the ground surface").

Although salamander observations and (it is believed) populations have declined sharply in the last 50 years, *see supra*, the agencies did not acknowledge this concerning trajectory. Instead, the Forest Service stated only that "[k]nown locations of JMS have increased over decades due to more frequent and intensive surveys," that of the twenty-three known salamander locations, "salamanders were abundantly found in seventeen sites," but that "determining overall species population trends [is] difficult." *Id.* at 86; *see also* Plan BiOp at 27–28.

As with the spotted owl, most of the salamander effects analysis concerns the benefits of preventing high-severity fires through "vegetation management." The agencies again stated that "[p]rescribed fire and mechanical treatments could, over the long term, reduce uncharacteristic wildfire and the associated risk of substantial or complete loss of areas providing [salamander] protected and recovery habitat." Plan BiOp at 39–40; *see also* Plan BA at 90. The agencies acknowledge the potential for "short term impacts such as disturbance to nesting [salamander] from "activities associated with burning," but make no mention of negative long-term impacts or negative impacts from logging, including from heavy equipment, skid trails, and landings. Plan BA at 90; *see also* Plan BiOp at 39–42.

The Plan BA and BiOp state that "timber objectives that promote the collection of fuel wood" would "decrease [course woody debris] departure and positively affect ecological conditions required by some at-risk species." Plan BiOp at 39; Plan BA at 90. Neither document clarifies whether these unnamed species include the salamander, which requires moderate to high volumes of large fallen trees and other woody debris. Plan BA at 85.

The agencies acknowledge that road construction and repair could "damage needed soil and vegetation and disturb" salamanders but again fails to connect this to logging or provide any further detail, and the discussion focuses primarily on road decommissioning. Plan BA at 92, 97; *see also* Plan BiOp at 40. The agencies acknowledged that "[s]ome program areas are likely to impact the tree density that supports the cool microclimate needed to sustain in forested areas; these are also likely to impact ground litter and woody debris, which will decrease cover and habitat for the salamander temporarily." Plan BiOp at 42. But they neither specify what will cause these impacts nor explain how the intended consequences of the Revised Plan (reduction in tree density and woody debris) could be considered "temporary."

The Forest Service's analysis of impacts to critical habitat PCEs related to forest structure, also identical to the discussion for spotted owl, does not acknowledge the potential for any negative impacts from logging or other mechanical treatments. *See* Plan BA at 80, 95. The only acknowledged potential for impacts to underground habitat components is "limited short term impacts from trampling of prey habitat during monitoring or habitat assessments." *Id.* at 96; Plan BiOp at 42. There is no mention of compaction or erosion from heavy machinery or ground-disturbing logging activities.[7] The "cumulative impacts and climate change analysis" for the salamander merely states that "Timber harvest, prescribed burning activities, and livestock grazing occur on the adjacent nonfederal lands" and that climate change could cause "declining acreage of forested habitat, greater risk of insect and disease impacts to habitat, and greater risk of stand-replacing wildfire." Plan BiOp at 42.

The Forest Service's discussion of conservation measures for the salamander is identical to the same discussion for spotted owl, including the statement that projects should follow the species recovery plan. *See* Plan BA at 69, 87. Notably, there is no such recovery plan for the salamander.[8]

The USFWS ultimately concluded that implementation of the Revised Plan would not jeopardize the continued existence of the salamander or adversely modify its designated critical habitat. Plan BiOp at 46. It based this conclusion on the following:

> 1. Prescribed fire and mechanical treatments, over the long term, reduce uncharacteristic wildfire and the associated risk of substantial or complete loss of areas providing JMS protected habitat.
> 2. While some short-term adverse effects or consequences may occur as part of implementing the management direction within the revised LMP, the components will help to minimize them and over the long-term, forest health and resiliency are expected to improve, benefitting the salamander.

Id. The agencies did not mention *any* long-term impacts or *any* impacts from logging. Nor did they acknowledge the Forest Service's intent to massively increase commercial logging under the Revised Plan, much less discuss what this might mean for the salamander.

Because the Revised Plan does not itself authorize any actions that would directly cause incidental take, the USFWS did not prepare an ITS. *Id.* at 47. Take would be quantified and exempted later, during consultation for implementing projects such as Encino Vista.

III. The Encino Vista Landscape Restoration Project

a. The Project

The Encino Vista Landscape Resiliency Project ("the Project") is located on 130,305 acres within the Coyote and Cuba Ranger Districts in Rio Arriba County, New Mexico. Forest Service, *Encino*

[7] The list of "potential effects, both positive and negative, from mechanical harvest and thinning" appears to be a list of potential effects from riparian restoration activities. *See id.* at 96.

[8] The remainder of the paragraph on salamander conservation measures appears to concern the New Mexico meadow jumping mouse. *Id.* at 87.

Vista Landscape Restoration Project Final Environmental Assessment (April 2025) ("Project EA"). Significant portions of the area have already been impacted by intensive logging. *See* Attachment B.

Within this larger Project area, there will be a "121,648-acre vegetation management project footprint … but some of the proposed activities … would occur within a smaller footprint[.]" *Id.* at 9. The Forest Service also stated that "there are approximately 74,693 acres of stands suitable for varying treatment types which include: mechanical thinning, hand thinning, mastication, fuels redistribution, and use of prescribed fire." *Id.* at 35. The Project authorizes 26,752 acres of thinning, including 7,202 acres of commercial logging, and 74,693 acres of prescribed fire. *Id.* at 39. Phased over a 15- to 20-year period, the Project will annually subject up to 750 acres of land to commercial thinning, up to 2000 acres to pre-commercial thinning, and up to 8000 acres to prescribed burning. The Project authorizes the creation of up to 8 miles of new temporary roads in the Santa Fe National Forest, the maintenance and use of an unknown extent of existing roads, and the on- and off-road use of heavy machinery.

Rather than specifying where these activities will occur, the Forest Service relied on "condition-based management" to identify where general categories of activities *might* occur. *See id.* at 11. The Project defines only vaguely the management and selection process: As the EA explains, treatments are still being developed, treatments units are not yet planned, and the Forest Service will eventually identify site-specific features and site conditions that it will then use in some manner to "guide the selection of specific treatments or tools" that "may be used to achieve the purpose and need." *Id.* It is unclear where the authorized logging will happen, or when, and the Forest Service did not identify where new roads would be required or how much road "repair" and "maintenance" would be needed for existing roads to be suited for extensive use by heavy machinery and logging trucks. As a result, there is very little information regarding site-specific conditions on the ground, the specific treatments that will occur in any area, or the specific effects of those treatments.

The Forest Service generally describes the existing ecological conditions within the Project area as "overstocked, lack[ing] horizontal and vertical structure, and hav[ing] altered species composition" compared to historical conditions. *Id.* at 12. "Due to approximately 100 years of fire suppression and past forest management practices," the EA asserts, "the proposed project area's ecosystems are now far outside the natural range of variability[.]" *Id.* at 16. The agency therefore justified the Project as necessary

> to restore overall forest health, lower uncharacteristic high severity fire risk, improve watershed health, and protect wildlife habitat across the project area. … In order to fully meet this purpose, the project would need to improve and maintain a transportation system in a manner that reduces negative impacts to watershed health and facilitates access to project areas.

Id. at 11.

Despite this purported intent to improve forest health, protect habitat, and lower the risk of "uncharacteristic" high-severity fire, the Project encompasses large areas of MCW, PJO, and SFF

that are historically characterized by high-severity or stand-replacing fire and closed canopy structures. *See id.* at 17. To the extent that they are departed from historic conditions, these areas currently have uncharacteristically small stands and lack large, old trees. The Project authorizes extensive treatments that will further remove the area from desired conditions and historic conditions while damaging wildlife habitat.

For example, the PJO units will be heavily treated "to meet objectives related to fire, fuels, and WUI objectives." *Id.* at 12–14. This will involve a dramatic reduction in canopy cover. *Id.* at 16–18. But this ERU is actually characterized by "highly variable" fire behavior, including high-intensity canopy fires; a closed canopy structure; and more large, old, trees than presently exist. *See id.* at 12–14. The proposed treatments will not bring PJO units towards forest health or historic conditions.

The Project will also take SFF and MCW stands further from desired or historic conditions. Although the Revised Plan notes that these ERUs should be made up of larger stands with larger trees and closed canopies, and there is no evidence in the Project EA that the Project area differs from this characterization, the Project authorizes commercial logging of large trees, with the explicit goal of reducing canopy cover, in both forest types. *See id.* at 36; *see also id.* at 32 (discarding 9" dbh cap because it would not sufficiently reduce canopy density).

Due to the Project's likely effects on canopy cover, forest structure, and soil, as well as the immediate disturbances associated with Project implementation, the Forest Service prepared a biological assessment discussing impacts to the Jemez Mountains salamander and the Mexican spotted owl.[9] *See* U.S. Fish & Wildlife Serv., Letter of Concurrence (Cons: 2023–0119811) (Dec. 9, 2024) ("LOC"); U.S. Forest Serv.*, Biological Assessment for the Encino Vista Forest Landscape Restoration Project* (May 2024) ("Project BA") at 11. The owl and salamander may experience multiple direct and indirect harms from the Encino Vista Project.

b. The Encino Vista Project consultation

The Forest Service also considered the Encino Vista Project's impact on the salamander and spotted owl. In its final BA on July 17, 2024, the Forest Service stated that the Encino Project "may affect, is not likely to adversely affect" the Mexican spotted owl and "may affect, is likely to adversely affect" the salamander. The USFWS concurred on December 9, 2024. The agencies therefore did not complete formal consultation regarding the spotted owl, nor did the USFWS issue an ITS covering take of owls resulting from Project implementation.

In its Letter of Concurrence, the USFWS listed several conservation measures undertaken by the Forest Service on which it relied in determining that the owl would not be adversely affected. These included the incorporation of current Forest Service Region 3 owl management strategies, the implementation of owl-specific project design features, prohibitions on Project activities within the PACs during breeding season (described as March 1–August 3), compliance with the 2012 Revised MSO Plan, and a 9" dbh cap on tree removal during hand–thinning operations in MSO PACs. LOC at 2.

[9] Five other ESA-listed or proposed species are present, but received USFS determinations of "no effect" from Project activities. *Id.* Guardians does not challenge these determinations.

The USFWS also rendered its biological opinion for the Encino Vista Project in December of 2024, stating a finding of no jeopardy to the Jemez Mountain salamander from the proposed Project actions. Although recognizing the alteration of more than half of suitable salamander habitat within the planning area, and the inherent potential for harassment, injury, mortality, destruction of habitat features, habitat fragmentation, and alteration of required microclimates, USFWS decided that the Project's best efforts and the restriction of activity to the winter and spring months would suffice to protect the species. The agencies agree that the Project area covers roughly 20,082 acres of suitable salamander habitat, and that a total of 12,886 acres will be affected by thinning, pile burning, and prescribed broadcast burning activities across the Project's lifetime. Project BiOp at 11–12, 16–17. The USFWS used this level of habitat impact as a proxy for incidental take and granted the Project the ability to take, in under 20 years, just over 64% of an endemic, endangered species therein. *Id.* at 15–17.

ESA VIOLATIONS

The Forest Service and USFWS have violated, are violating, and, if the Forest Service implements the Encino Vista Project without curing the deficiencies detailed below, will further violate their procedural and substantive duties under the ESA.

I. Violations of ESA Section 7(a)(2): Failure to Complete Valid Consultation Regarding the Santa Fe National Forest Land Management Plan

The Forest Service and the USFWS violated ESA Section 7(a)(2) by failing to utilize the best available scientific and commercial data, failing to take a hard look at all aspects of the issue, and basing their analyses on faulty assumptions in their formal consultation regarding the Revised Plan's impacts on the Jemez Mountains salamander and Mexican spotted owl. The agencies thus failed to adequately support their conclusions that the selected forest management practices will not jeopardize the salamander or owl or adversely modify their respective critical habitats.

The Revised Plan presents a drastic shift in the Forest's logging and vegetation management approach, increasing commercial logging by 150% and vastly expanding the prescribed fire program. It substantially expands the areas deemed suitable for timber production and calls for a massive increase in commercial logging on lands deemed *unsuitable* for timber production under the guise of restoration or fuels reduction. *See* ROD at 14–15; FEIS Vol.1 at 66, 404–06. The agencies entirely ignored this significant change in their analyses of the Revised Plan's impacts. The agencies failed to directly acknowledge that commercial logging for the purposes of timber production would occur, or that logging and noncommercial thinning would have any adverse effects. And the agencies failed to explain their conclusion that any negative impacts from vegetation management would be minor and short-term.

This willful blindness to the scope and effect of the Forest Service's proposed logging program pervades the entire analysis. Habitat loss or degradation from logging and forest management is a primary threat to both species, making this refusal to consider any negative impacts from the massive expansion of the Forest Service's logging program a glaring violation of the agencies' duties under the ESA. The Forest Service cannot depend on such an inadequate and inaccurate

biological opinion to ensure that implementing the Revised Plan will not jeopardize the continued existence of the salamander and owl.

a. The agencies failed to consider evidence in conflict with their assumption that the proposed "vegetation management" is necessary and effective to prevent uncharacteristic wildfire.

The Plan BA and BiOp assume without sufficient evidence, and while ignoring evidence to the contrary, that the proposed logging is both necessary and effective to prevent uncharacteristically high-intensity wildfire in salamander and owl habitat. But the Revised Plan contemplates "forest management" activities in areas that the Forest Service elsewhere admits do not require "fuels management" and should instead have larger trees, thicker canopies, and larger patch sizes. The Revised Plan makes questionable assertions regarding the historic range of variability for fire-adapted ecological response units, calling for dramatic reductions in canopy cover and forest density not well-supported by the record. And the Revised Plan calls for logging and other management practices that may *increase* the risk of high-severity fire.[10] *See* Attachment B at 6 (showing flammable logging slash left untreated from previous vegetation management project). Yet the agencies base their analyses on the assumption that without the proposed vegetation treatments, there will be "substantial or complete loss of areas providing [owl and salamander habitat]." BA at 72, 90; *see also* BiOp at 35–36, 46. This allows the agencies to artificially discount (or completely ignore) all negative impacts from the Forest Service's course of action on the grounds that wildfire will be worse. This assumption ignores the best available science to the contrary. *See*, *e.g.*, Derek Lee, *Spotted Owls and Forest Fire: A Systematic Review and Meta-Analysis of the Evidence*, 9 ECOSPHERE (July 2018) (Attachment C); Dennis Odion et al., *Effects of Fire and Commercial Thinning on Future Habitat of the Northern Spotted Owl*, 7 OPEN ECOL. J. 37–51 (2014) (Attachment D); Attachment A.

These simplistic, unfounded assumptions are particularly troubling given the dearth of actual knowledge regarding the impacts of wildfire, prescribed fire, and intensive logging on either species. The listing decision for the salamander is illustrative of this problem. There, the USFWS acknowledged that uncharacteristically severe wildfire likely posed a threat to the species—as did logging and other forest management activities. *See* 78 Fed. Reg. at 55,605–17. As the agency explained, historical and current logging had significantly degraded or destroyed salamander habitat. *See id.* The agency concluded that "some fuels treatment actions, such as thinning in areas around at-risk human communities could be conducted in a manner that would pose no threat to the salamander," but repeatedly cautioned that best management practices were needed to ensure that logging and fuels treatments did not create significant adverse effects—and that such practices had not yet been developed. *Id.* at 55,615; *see also*, *e.g.*, *id.* at 55,605–06, 55,609 ("Forest restoration treatments that minimize impacts and maximize benefits to the salamander need to be tested."), 55,610–11 ("[I]t is unknown whether the proposed treatments will effectively reduce the

[10] This includes the very real possibility that the Forest Service's prescribed fires will be either more intense or much larger than planned—a substantial number of the large "wildfires" that have impacted the Forest and surrounding areas were actually escaped burns started by the agency itself. *See* The Forest Advocate, *Santa Fe National Forest – 25 Year Wildfire History*, https://www.theforestadvocate.org/santa-fe-national-forest-25-year-wildfire-history/ (last visited June 22, 2026) (Attachment E). This has become a regular enough occurrence to be considered reasonably foreseeable, but the agencies fail to acknowledge the possibility in their discussion of wildfire and prescribed burns.

risk of severe wildfire to the salamander or its habitat without causing additional harm to the species, because measures to minimize impacts will be experimental and have not yet been developed."), 55,613–14 (identifying multiple positive and negative effects of prescribed fire and fire management), 55,614–15 ("[M]echanical treatments could also pose a threat to the salamander and its habitat if conducted in a manner that degrades habitat or makes it unusable to the salamander."). The requisite mitigation strategies have yet to be developed, and the intensive logging proposed in the Revised Plan would make the majority of potential salamander habitat unusable, *see infra*, while the need for and effectiveness of these vegetation treatments to reduce wildfire risk is merely assumed throughout the agencies' analysis.

The ESA requires the agencies to actually acknowledge and analyze the impacts of the Forest Service's actions rather than ignoring adverse science and proceeding on incorrect assumptions. They failed to do so here.

b. The agencies improperly conflate all vegetation management activities and ignore the impacts of commercial logging.

Relatedly, the agencies characterize all vegetation management within the Project as restoration and necessary fuels reduction, without addressing the significantly increased level of logging. This ignores the best available science, ignores a significant aspect of the problem, and relies on assumptions the agencies know to be incorrect.

The agencies fail to acknowledge the proposed increase in logging on lands designated as suitable for timber production. The Revised Plan increases the number of acres designated as suitable for logging by inexplicably removing protections from lands previously considered unsuitable. Additionally, the Revised Plan contemplates far more intense logging on these "suitable" areas—indeed, it will nearly *triple* the amount of logging from suitable lands. *See* FEIS Vol.1 at 402 (acreage suitable for timber production will increase by roughly 9%), 404 (sawtimber from "suitable" lands will increase by 193% in the first decade). Intensive logging, especially clearcuts, leave-tree, and other even-age methods, can render forestland unsuitable for salamanders or spotted owls for decades to come. Yet the BiOp discusses all vegetation management as if it will be done for habitat restoration. This conflation of logging, especially for the express purpose of timber production, with all other types of vegetation management is unexplained, unsupported, and contrary to the purpose of the Plan BA and BiOp. It represents a failure to use the best available scientific data available regarding the impacts of logging and relies on an assumption that the agencies know to be incorrect.

Nor do the agencies' analyses in the Plan BA and BiOp address the impacts of commercial logging for theoretically restoration-oriented purposes, although the best available science again shows that such activities can have significant adverse effects on the salamander, spotted owl, and their respective habitats. Indeed, the Forest Service elsewhere asserts (without citation) that such thinning projects will have "no negative impacts" on at-risk species, in direct conflict with scientific consensus. FEIS Vol.1 at 209–10, 301–02. The agencies appear to adopt this assumption in their ESA analysis, which fails to address any negative impacts of "restoration logging." This logging program will be truly extensive: The Revised Plan calls for a 144% increase in sawtimber

alone from areas deemed unsuitable for logging.[11] FEIS Vol.1 at 404.

The Revised Plan sets a goal of "mechanically treating" 10,000–80,000 acres of MCD and 15,000–100,000 acres of PPF in the next decade, but the BiOp tells us nothing about the potential impacts of this aggressive program. Plan BiOp at 9. It does not explain how much of "treatment" will entail commercial logging and associated activities. It does not state how much of the treatment will actually target small trees rather than the larger, older, fire-resistant trees necessary for salamander and owl habitat.[12] It does not discuss what the impact of such treatments might be, focusing instead on short-term disturbance impacts specifically from prescribed fire.[13] The agencies fail to acknowledge this fundamental aspect of the issue and ignore the best available science, which shows such logging can destroy or degrade salamander and owl habitat. Indeed, the agencies' own prior statements directly conflict with their implicit assumptions here: The Mexican spotted owl was initially listed as threatened in 1993 due to the "destruction and modification of habitat caused by timber harvest[.]" 58 Fed. Reg. at 14,248.

In sum, the agencies ignored a significant aspect of the Revised Plan's potential impacts, failed to rely on the best available data, and relied on assumptions they knew to be incorrect. By failing to directly acknowledge and analyze the impacts of commercial logging—for whatever purpose—the agencies violated their consultation duties under the ESA.

c. The agencies fail to acknowledge the negative long-term impacts of the proposed vegetation management activities.

The agencies also incorrectly assert that canopy and undergrowth removal will have only "short term" impacts, despite the fact that these are intended to be permanent and maintained changes to forest structure. And the Forest Service does not support its claims that such thinning projects have "no negative impact on wildlife"; a great deal of credible science disagrees.

The USFWS acknowledged that the Revised Plan calls for 72% of MCD and 86% of PPF to be open canopy, elsewhere generally defined as 10–30% canopy cover. Plan BiOp at 35 (stating desired conditions); FEIS Vol.1 at 90–92 (defining open canopy for MCD and PPF). These two ERUs together comprise half of the Forest's total acreage. *See* Plan BiOp at 8. The purpose of the vegetation management proposed by the Revised Plan is theoretically to "maintain or move towards" these desired conditions. FEIS Vol.1 at 18. Achievement of these open conditions in MCD and PPF is therefore not meant to be a "short-term" effect; it is, rather, the intended long-term outcome.

[11] Sawtimber is defined as trees over 9" dbh; logs 5–9" dbh are considered non-sawtimber and utilized as firewood, latillas, and other usually personal uses. *See id.* The fact that the Revised Plan calls for a notably greater increase in production of sawtimber than non-sawtimber belies the agencies' assertion that vegetation management will focus on restoration and fuels management (which require removal of primarily small trees). *See* FEIS Vol.1 at 404.

[12] Although we do know that the Revised Plan focuses on removal of primarily larger, commercially marketable trees with no size or age cap.

[13] Indeed, the agencies largely fail to acknowledge that even *noncommercial* mechanical treatments will have negative effects, again focusing entirely on the disturbance impacts associated with prescribed fire. But mechanical thinning can have different impacts on the owl, salamander, and their respective habitats than burning. The agencies failed to address these effects.

The MCD and PPF also contain virtually all salamander and owl habitat. *See* Plan BiOp at 35, 39 (noting ERUs associated with owl and salamander). The BiOp notes that the spotted owl requires *at least* 40% canopy cover, while the salamander requires 50–100% canopy cover. *Id.* at 17, 22. But the BiOp never addresses the fact that achievement of the Revised Plan's desired conditions (less than 30% canopy cover in most MCD and PPF) would render almost all potential habitat uninhabitable to the salamander and owl. The USFWS seemingly never recognized that 10–30% is less than 40–100%, and it certainly never explained how this jarring disconnect was accounted for in the agency's no-jeopardy determinations. Instead, it simply assumes incorrectly that reducing fuel loads and canopy cover will have blanket positive impacts on forest health and that this will *necessarily* benefit the salamander and the owl—species that require high canopy cover and significant levels of course woody debris. But, contrary to the Forest Service's logging-forward agenda, "canopy cover" is not a suitable proxy for overall forest health, and reducing it across the board will harm these imperiled species.

Although the Forest Service's chosen vegetation management program will have the long-term, and perhaps permanent, effect of eliminating most potentially suitable salamander and owl habitat, the agencies failed to acknowledge the existence of *any* long-term negative impacts from logging and burning. Instead, the USFWS drew the unsupported conclusion "[w]hile individual projects may have short-term negative effects, the better long-term forest health is expected to be beneficial for the owl." *Id.* at 38; *see also* BA at 81 (stating that "vegetation management" could have "short-term impacts" such as "change in stand structure which may impact nesting and foraging habitat"). The agency has this backwards. The negative effects of these treatments could be functionally permanent, while the beneficial effects are merely speculative. It does not matter whether potential owl habitat might burn at a lower severity in a hypothetical wildfire if the treatments have already rendered it uninhabitable for the foreseeable future.

The agencies similarly asserted that vegetation treatments could have only "short term [negative] impacts such as disturbance to the salamander" from "activities associated with burning[.]" *Id.* at 39–40. Leaving aside the question of why these disturbances would not also result from mechanical treatments, this analysis again entirely ignores that some of the Revised Plan's *long-term*, *intended* impacts would also be negative, since the purpose of these treatments is to reduce canopy cover well below the minimum needed for salamander persistence. The BiOp vaguely notes that "[m]ost [program areas] are likely to impact forest canopy cover through burning or thinning to some level. While the short-term effects will be negative, the long-term effects are expected to result in increased forest health and resiliency." *Id.* at 41–42. The USFWS fails to identify which program areas those are and what their impacts to canopy cover would be, and fails to explain how the negative effect of rendering most of the forest uninhabitable to salamanders for the foreseeable future can be considered "short-term." The laudable goal of "increased forest health and resiliency" does not help the salamander if it entails permanent destruction of most salamander habitat.

The USFWS and Forest Service ignored the scientific data on salamander and owl habitat requirements and drew conclusions regarding the Revised Plan's impacts that run directly counter to the evidence before the agency. This violated the agencies' duties under the ESA.

d. The USFWS failed to adequately consider cumulative impacts and climate change.

In determining whether a proposed action will jeopardize the survival or recovery of a species, the USFWS must consider both the effects of the proposal and any cumulative impacts, defined as the "effects of future State or private activities … that are reasonably certain to occur within the action area[.]" 50 CFR § 402.02. This the agency failed to do.

The Plan BiOp contains virtually identical, conclusory paragraphs on "cumulative effects and climate change" for the salamander and owl. *See* Plan BiOp at 39, 42. For each species, the BiOp states that "[t]imber harvest, prescribed burning activities, and livestock grazing occur on the adjacent nonfederal lands." *Id.* It does not give even a general sense of how much logging, burning, and grazing occur, much less any details regarding those activities or a description of their impacts. *See id.* For the owl, the USFWS adds that "the PACs adjacent to or within about 300 feet of adjacent to private land may be subject to disturbance associated with residential, business, livestock grazing, and other activities," but again the USFWS fails to explain what types of disturbance might be associated with residential, business, or "other" activities, much less how those disturbances may synergistically interact with the Revised Plan's impacts. *Id.* at 39. Nor does the USFWS ever attempt to explain why it cannot offer more detailed information or robust analysis of foreseeable nonfederal actions. The "climate change analysis" for the salamander and owl is equally underwhelming, consisting of one sentence for each species. *Id.* at 39, 42.

This is inadequate. The USFWS cannot account for the unidentified impacts of such vaguely described potential activities of unknown scope in its jeopardy analysis, which is therefore invalid.

e. The Revised Plan may jeopardize the Jemez Mountains salamander.

The USFWS failed to support its conclusion that implementing the Revised Plan will not jeopardize the Jemez Mountains salamander. In addition to the flaws in their analyses described above, the agencies failed to consider and rely on the extensive scientific data showing adverse impacts of logging and associated road building on salamander populations, failed to establish an appropriate baseline, relied on assumptions the agencies knew to be inaccurate, and failed to appropriately consider the Revised Plan's impacts in the context of the species' overall status. The USFWS's no-jeopardy determination is therefore arbitrary, capricious, and in violation of the ESA.

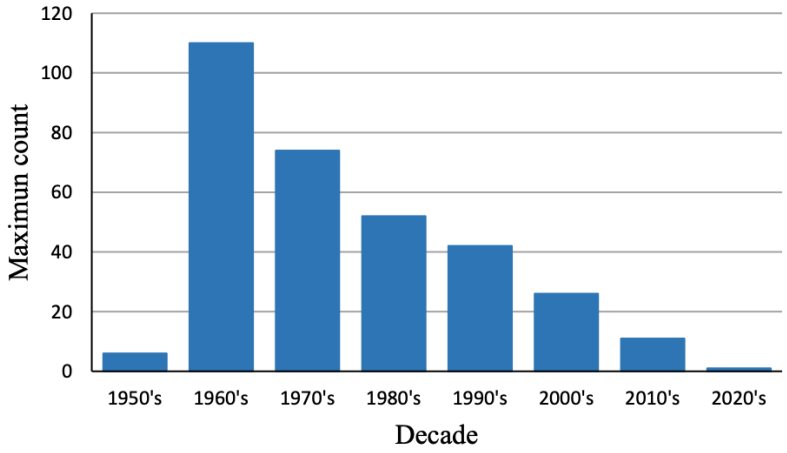
As explained above, there is an extensive body of scientific literature discussing the adverse impacts of logging and roadbuilding, in particular, on salamanders. *See supra*. The agencies failed to address any of this information or incorporate it into their analyses, nor did they adequately support their conclusions with valid scientific data.

The USFWS further failed to consider the Revised Plan's impacts in the appropriate context. To reach its jeopardy determination, the agency must first "[e]valuate the current status and environmental baseline of the listed species or critical habitat." 50 C.F.R. § 402.14(g)(2). Only then can it accurately determine whether the proposed action's impacts, when added to cumulative effects and the environmental baseline and *in light of the status of the species and critical habitat*, will result in jeopardy or adverse habitat modification. *Id.* § 402.14(g)(4) (emphasis added).

Without this crucial context, the impact of the immediate project is essentially meaningless.

Here, however, the USFWS entirely ignored—if not outright misrepresented—the status of the Jemez Mountains salamander.

First, the USFWS failed to acknowledge the salamander's continuing decline since the 1960s, and ignored its own recent determination that salamander "extinction is almost certain in the immediate future because of … habitat destruction" and a "lack of recent captures at historical locations" indicating a "rapid population decline." U.S. Fish & Wildlife Serv., N.M. Ecol. Serv. Field Off., *Jemez Mountains salamander (*Plethodon neomexicanus*) 5-Year Status Review: Summary and Evaluation* at 19 (Aug. 30, 2024) ("Salamander Status Review"). Species resiliency is mostly low, species recruitment mostly "very low," and species redundancy "poor" across the salamander's range. Salamander SSA at 36–40. Salamander observations have declined dramatically since surveying began in the 1960s, presumably reflecting a similar decline in population; "in some localities where the salamander was once considered abundant or common, the salamander is now rarely detected or has not been recently detected at all." 78 Fed. Reg. at 55,604.



Maximum number of Jemez Mountains salamanders detected at a single location during a survey by decade. Salamander SSA at 22.

None of this information appears in the BA or BiOp. Instead, the Forest Service cheerfully asserted that "[k]nown locations of JMS have increased over decades due to more frequent and intensive surveys. … Of the twenty-three locations, salamanders were abundantly found in seventeen sites." BA at 86. The USFWS merely stated that "determining overall species population trends" is "difficult." BiOp at 27–28. Neither agency found it necessary to mention that salamander observations and (presumably) populations are actually rapidly *decreasing. See* BA at 84–87; BiOp at 27–28; Salamander Status Review at 19. Without acknowledging the species' current status and environmental baseline, there was no way for the USFWS to determine whether implementing the Revised Plan might jeopardize the salamander. *See* 50 C.F.R. § 402.14(g)(4).

The agencies' failure to adequately describe and consider the Revised Plan's impacts and the salamander's status is compounded by the species' extremely limited range. *Cf.* 78 Fed. Reg. at 55,624–25. The salamander is found *only* in and around the volcanic caldera at the center of the

Forest's west side. Most historic and current salamander observations have been on the Forest, where the majority of its critical and suitable habitat is located. The importance of the Forest to the salamander cannot be overstated; the Revised Plan will directly or indirectly affect virtually the entire species for decades to come. It is therefore imperative that the agencies fully and accurately assess the Revised Plan's impacts at the programmatic level. The agencies failed to do so. The USFWS's jeopardy determination, which improperly minimized the Revised Plan's negative impacts and failed to address key information, is invalid.

In sum, the Forest Service and USFWS failed to use the best available data, ignored primary aspects of the issues, relied on assumptions the agencies knew or should have known to be incorrect, and reached conclusions contrary to the evidence before them. This violated the agencies' consultation duties under the ESA. The USFWS's determination that implementation of the Revised Plan will not jeopardize the salamander and owl or adversely modify their respective critical habitats is therefore invalid and the Forest Service cannot rely on it.

f. The Revised Plan may jeopardize the Mexican spotted owl.

Finally, the USFWS failed to support its conclusion that implementing the Revised Plan will not jeopardize the Mexican spotted owl. The agencies persistently refused to acknowledge the massive increase in logging contemplated by the Revised Plan or explain how it will impact the spotted owl—a species listed specifically based on the destruction of its habitat by logging. In addition to the flaws in their analyses described above, the USFWS failed to consider and rely on the best available scientific data, which shows that the vegetation treatment proposed under the Revised Plan have a significant adverse impact on the owl, and based its analysis on assumptions that they knew or should have known to be incorrect. Because it entirely failed to recognize and account for the Revised Plan's most significant impacts on the owl, and based its conclusions on inaccurate data and unfounded assumptions, the USFWS's "no jeopardy" determination is invalid.

The agencies concede that the spotted owl was listed as threatened due primarily to habitat loss resulting from logging on public lands, but attempt to portray this as a historical rather than current problem and suggest that logging on the Santa Fe National Forest was never a threat to the owl. Neither assumption is supported by the record, and neither addresses the effects of massively increasing timber production from the Forest as proposed by the Revised Plan. The Forest Service asserts that although "[t]imber-harvest practices in the Southwestern Region were cited as the primary factors threatening the continued existence of the owl[,] [t]imber is not a major industry in the Santa Fe NF, partly due to fewer large trees of commercial value." Plan BA at 68. But the Forest produces roughly as much timber, relative to its size, as the other National Forests in the Southwestern Region. *See supra*. It may be true that timber is not a major industry on the Forest if compared to the Forests in Regions 1 or 6, but this is irrelevant as to whether the "timber harvest practices in the Southwestern Region" that threaten the owl occur on the Forest. More importantly, the question is not whether the spotted owl was jeopardized by the level of timber harvest under the previous Forest Plan—it is whether increasing that amount of logging by 150% will jeopardize the owl. The agencies do not even attempt to answer this question, thus failing to account for one of the primary threats to the owl's survival and recovery and basing their analysis on a flawed assumption.

As noted *supra*, the USFWS failed to acknowledge the expansion of logging under the Revised Plan or consider how the desired conditions, particularly in the PPF and MCD, would impact the spotted owl. It also failed to address the large body of evidence showing that the owl may require even higher canopy cover than the minimum 40% cited in the listing decision, and it failed to explain how bringing the canopy cover well below that level across most potential owl habitat on the Forest could have no long-term adverse effects on the species or its habitat.

Moreover, the USFWS failed to address recent data suggesting that the "restoration" and "fuels" projects contemplated by the Revised Plan have significantly greater negative impacts than previously understood. The USFWS has elsewhere acknowledged that the impacts of fuels reduction-oriented logging and burning on the Mexican spotted owl are not well documented or completely understood. It therefore typically requires effects monitoring for such projects. However, the agencies consistently fail to incorporate these data into their analyses going forward, despite the Forest Service's frequent insistence that it needs unfettered flexibility to respond to new information. Here, the agencies failed to incorporate data from monitoring reports from the Four Forest Restoration Initiative ("4FRI"), which has been conducting fuels and restoration activities on a landscape scale for over a decade. Even though the majority of the 4FRI projects have been noncommercial, and the initiative (unlike the Revised Plan) does not emphasize commercial logging for the specific purpose of timber harvest, the monitoring reports have showed greater adverse effects to the spotted owl than anticipated. *See* Attachment A. Thinning and burning have proven to have adverse effects on owl presence, apparent population, nesting, and successful reproduction. The agencies' failure to incorporate this data violates the ESA.

Because the USFWS failed to consider a major part of the issue, relied on faulty assumptions, failed to incorporate the best available data, and drew conclusions contrary to the evidence before it, the agency's determination that implementing the Revised Plan will not jeopardize the spotted owl's survival or recovery is invalid and the agencies have not fulfilled their consultation duties under ESA Section 7.

II. Violations of ESA Section 7(a)(2): Failure to Complete Valid Consultation Regarding the Encino Vista Project

The Forest Service and the USFWS violated ESA Section 7(a)(2) by (1) failing to utilize the best available scientific and commercial data and failing to take a hard look at all aspects of the issue, rendering the Encino Vista biological opinion and incidental take statement for the Jemez Mountains salamander invalid; and (2) failing to formally consult regarding the Project's impacts on the Mexican spotted owl.

a. The Project biological opinion for the Jemez Mountains salamander is invalid.

The agencies' analysis of Project impacts to the Jemez Mountain salamander suffers from numerous omissions and errors and is unreasonably vague in defining its conservation measures. The finding of no jeopardy to the salamander's continued existence does not properly account for the environmental baseline, the current status of the species, the total impacts of the Project, or all cumulative impacts to the species.

1. The Project biological opinion fails to use the best available science.

First, the agencies' Biological Assessment of May 2024 and Biological Opinion of December 9, 2024 were created without an accurate, up-to-date baseline for salamander presence within the Project area. Each agency admits that no population surveys of the area have been completed since 2014, and the Service describes recent information collection as "lacking." Project BA at 10, 15, 20–21; Project BiOp at 15–16. Instead of collecting further information, the agencies chose to operate under a series of assumptions regarding the salamander; the Project BA is filled with terms such as "believed to," "likely," "never been observed," "assumedly," etc. *See*, *e.g.*, Project BA at 19–20, 21, 23–24. These assumptions, problematic in and of themselves, are also applied inconsistently. Although the Service states that, in response to the lack of data, it will assume all suitable salamander habitat to be occupied and that it is necessary to retain large undisturbed woody debris as habitat, it also recommends that large logs at the perimeter of burn sites be tossed into the burn area—an odd decision, if there are assumedly endangered salamanders inside. Project BiOp at 15–16. This sort of picking-and-choosing between realities is not grounded in science and does not uphold the Forest Service's commitment to take conservation measures on behalf of the salamander.

Second, the agencies fail to adequately explain the logic behind many of their assumptions in relation to salamander biology and impacts on habitat. The Project BA concludes that Project activities performed outside of the species' active window of June 15–October 31 will "have little potential to impact the species," because the salamanders are assumed to be underground. Project BA at 22–23. The agencies conclude this despite the long-term nature of thinning and burning changes. *Id.* at 21. There is no factual or logical basis offered to support the idea that long-term Project effects such as a substantially thinner canopy, compacted ground, a lack of underbrush, the fragmentation of habitat by roads, the felling of large trees, and the removal of up to 6" of topsoil will simply not affect the salamanders when they emerge for the summer. These are persistent, dramatic alterations to the landscape with more than "a little potential to impact" the endangered salamander. Nevertheless, the agencies conclude that there will be no impacts. Likewise, the agencies fail to consider the long-term effects of logging, road creation, and prescribed burning on salamander habitat microclimates (i.e., issues stemming from the increased light, heat, breeze, and predator vantage from thinned canopies) or on prey ant populations.

Third, even when the agencies do offer a scientific basis for their actions, they do not incorporate the best available science and fail to address adverse science. Both finding of no jeopardy to the species and the "reasonable and prudent measures" imposed by the USFWS rely on the assumption that it is not harmful to the salamander to burn slash piles left over from thinning operations (the Forest Service's preferred method of slash disposal). Project BiOp at 7; Project BA at 18, 23. The agencies base this conclusion on internal, unpublished, non-peer-reviewed research. *See* Forest Serv., *Jemez Mountain Salamander 5-Year Status Review* (2024) (citing Trader, L., *Adaptive Fuels Management for an Endangered Species: Evaluating if Slash and Wood Piles Meet Conservation Measures in Jemez Mountains Salamander Habitat in Bandelier National Monument, New Mexico*, INTERAGENCY FIRE ECOLOGY NEWSLETTER.). The USFWS's own 2024 5-Year Status Review document refers to these results as "preliminary," yet the agency uses them as its sole proof for the permissible burning of pile habitat. *Id*. at 10. Moreover, the USFWS illogically discounts published science that disagrees.

Several publications, including one study mentioned but not given a citation in the Project BA, indicate that similar New Mexico salamanders *do* inhabit slash piles and may be harmed or killed by their burning. *See* Project BA at 23. This conclusion has since been supported by recent science. *See* Karrakker & Loehman, *Evaluating Slash Piles as Habitat for a Threatened Salamander*, 21 J. FIRE ECO. 36 (2025). To disregard this information, the Forest Service makes the paradoxical argument that the results of *A. hardii* studies cannot be applied to Jemez Mountain salamanders because the former is "ubiquitous" in New Mexico while the latter is "endangered." Project BA at 23. In other words, the Forest Service admits that slash piles are potential habitat, but argues that piles may still be destroyed because the Jemez Mountain salamander is *too endangered* to inhabit them. By the same logic, we should allow the use of harpoons in right whale migration routes. This again contradicts the Forest Service's preliminary assumption that "all suitable salamander habitat in this core area [i]s being occupied." Project BiOp at 16. Moreover, studies have explicitly pointed out that *A. hardii* does serve as a good proxy for Jemez Mountain salamanders in this case. Karrakker & Loehman at 38. The agencies failed to consider the best available scientific data and reached unsupported conclusions in direct conflict with the information before them. This undercuts the USFWS's ultimate conclusion that the Project will not jeopardize the Jemez Mountains salamander.

2. The Project biological opinion does not contain sufficiently specific, binding measures to ensure against jeopardy to the Jemez Mountains salamander.

Several of the conservation measures listed in the Project BiOp and BA are ill-defined, vague, and too open to interpretation to form binding guidance for agency actions. Such measures include the claims that the Forest Service will "regularly coordinate" with the USFWS on future monitoring, that any changes will be incorporated through "adaptive management means," that "subsequent discussions" will be had if species are present in the project area, a "decision will be made," landings will be "rehabilitated," etc. Project BiOp at 6–7. These measures lack specificity in both their implementation and outcome, and cannot be relied upon in the jeopardy determination. Even when more definitive metrics are proposed, they remain ill-defined. For example, when the USFWS states that ground skidding equipment will only be used in suitable salamander habitat "when soils are dry or freezing temperatures are present," it provides no elaboration on these metrics. *See* Project BiOp at 14. "Dry" can be an ambiguous term, particularly in different soil horizons and under different canopy closure conditions. Likewise, the "freezing temperatures" could be measured in the air, water, or soil, each of which freeze at different times of the year and for different periods, and each of which would have different outcomes for salamander behavior. A brief atmospheric freeze would not necessarily cause animals below the leaf litter to begin hibernation, but under these conservation measures may provide grounds to begin operations. As discussed *supra*, the USFWS's decision also contradicts the findings and recovery goals of the salamander 5-Year Status Review Report of August 30, 2024. The agencies failed to take the requisite hard look at the issue and institute sufficiently specific, binding guidance. The RPMs and conservation measures proposed to protect the Jemez Mountain salamander are inadequately defined, and not sufficient to form the basis of a no-jeopardy determination.

The USFWS itself has highlighted a need for BMPs and mitigation measures during actions such as logging or timber harvesting when it listed the salamander as endangered in 2013, since logging

can destroy habitat such that it can become uninhabitable. 78 Fed. Reg. at 55,606, 55,615. Given the acknowledged differences between the two practices, the agencies must be clear on how both timber harvest practices and actual restoration are to be deployed in salamander habitat sites. The USFWS cannot simply hope for the best in its jeopardy analysis.

Finally, the ITS associated with the BiOp for the Jemez Mountain salamander authorizes an excessive amount of harm to the species and contradicts itself as to whether habitat may be used as an appropriate proxy for the species. It also does not cover all potential methods of salamander take, focusing on the use of heavy equipment, broadcast burns, and disturbance of large woody debris, largely ignoring the direct and indirect harms from logging, including canopy cover removal and road construction, repair, and use. Project BiOp at 16–17. Among other things, the ITS does not contemplate the take of salamander eggs or nests, which can eliminate seven to eight individual salamanders at a time. Given the status of the specie and its highly restricted range—a substantial portion of which is in the Project area—the USFWS was required to better explain why the Project would not jeopardize the salamander.

3. The "no jeopardy" opinion fails to account for the environmental baseline, cumulative impacts, and current status of the species.

In addition to its errors in assessing the Project's impacts, the USFWS failed to establish an accurate environmental baseline, analyze cumulative impacts, or account for the current status of the Jemez Mountains salamander. Its conclusion that the Project will not jeopardize the species is therefore invalid. *See* 50 C.F.R. § 402.14(g)(4).

The environmental baseline for the salamander within the Project area was poorly established and based on outdated canine surveys from 2014. The Project BiOp inaccurately portrayed the salamander as less fragile than the species actually is, discussing only the spread of habitat occupancy while failing to mention that species recruitment and redundancy is "very low" and "poor" respectively. Salamander SSA at 36–40; Project BiOp at 10–11. Moreover, the agencies failed to acknowledge that intensive commercial logging has already occurred throughout the Project area, causing significant, long-term impacts to salamander and habitat. *See* Attachment B.

The agencies also failed to properly assess cumulative impacts on the salamander, much less the heightened impact they might have post-logging. The agencies acknowledge various future state and private activities reasonably certain to occur within the project area, such as camping, hiking, fishing, rod maintenance activities, and the grazing of mule deer and American elk. Project BiOp at 14. Though recognizing these behaviors as likely to "reduce the quantity and quality of habitat and … caus[e] injury or death" to salamanders, the agencies fail to discuss how the aftereffects of prescribed burning and thinning, such as greater light penetration and greater ease of movement in the understory, would enable and accelerate these cumulative effects in sensitive habitat. *Id.* The agencies additionally fail to explain why a more detailed analysis of reasonably foreseeable non-federal actions and their effects was not possible. These pervasive errors demonstrate that the agencies failed to utilize the best available information when making the no-jeopardy determination, which is therefore invalid.

The USFWS also failed to appropriately consider and disclose the current status of the species. As previously noted, the salamander is found only in and around the Forest, the Project area comprises a substantial portion of the salamander's range, and the species is at high risk of extinction. The Project BiOp does not discuss this significant overlap of the Project area with the salamander's entire home range, and it thus understates the catastrophic outcomes that disturbance there could have upon the species. The USFWS failed to account for this context in its no-jeopardy opinion.

In sum, the agencies failed to accurately analyze the Project's impacts to salamander habitat, ethology, and biology with reference to the best available scientific information; failed to establish an accurate environmental baseline; failed to assess cumulative impacts to the salamander; and failed to consider the species' current status. The USFWS was therefore unable to reliably determine whether the Project is likely to jeopardize the salamander. Given these glaring failures, the Project BiOp and associated ITS are invalid and the agencies must complete an accurate, valid consultation on the Jemez Mountain salamander.

b. The agencies unlawfully failed to formally consult regarding Project's impacts on the Mexican spotted owl

The agencies did not formally consult over the Mexican spotted owl, concluding that the Encino Vista Project was not likely to adversely affect the species. Project BA at 5, 32; Project LOC at 1–2. To avoid formal consultation, the agencies must render a finding that the impacts of the Project upon the species are discountable, insignificant, or entirely beneficial. *See* 50 C.F.R. § 402.12; Consultation Handbook at xv–xvi. Here, the agencies failed to utilize the best available data and drew conclusions counter to the evidence before them in making such a finding. The Project will have significant and reasonably foreseeable adverse impacts upon Mexican spotted owls. The Project BA and LOC are therefore arbitrary and capricious and must be withdrawn, and the agencies must formally consult on the Project's impacts to the spotted owl.

1. The Forest Service fails to explain how the Project would be entirely beneficial to the owl.

An action is not likely to adversely affect a listed species, and thus does not warrant formal ESA consultation, if its impacts will be entirely beneficial. Here, however, the agencies failed to establish that the Project would have *only* beneficial impacts to the Mexican spotted owl. Instead, they merely assumed that the Project would have a net positive effect on the species. But this is not the correct standard—even largely beneficial project with some adverse effects requires formal consultation. Moreover, the agencies here did not even demonstrate that the Project would have an overall beneficial impact. Their "not likely to adversely affect" determination was based largely on wishful thinking rather than actual analysis.

Agencies cannot base their analyses on faulty assumptions. At the core of the Project and the Revised Plan lies the assumption that habitat within the Project area and across the entire Forest is at genuine risk of uncharacteristically high-severity wildfire that will decimate the species in a single summer event, and that the Project's proposed interventions will be significantly less destructive and will remediate the problem. However, there is little data indicating that the correct baseline assumption for a historically low-severity and long-term fire regime area is an immediate,

catastrophic wildfire. There is no data to suggest a high likelihood that these treatments will prevent a wildfire at this location within the effective window of the next few decades, before the understory and canopy regrowth approximates original pre-treatment conditions. There is no data to indicate that such a fire will prove more damaging than the prescribed burns and logging authorized by the Project. The conjectured wildfire risk cannot simply be assumed to outweigh the certain, immediate, and sometimes long-term negative impacts of treatments within owl habitat. The agencies must interrogate that assumption. Additionally, three of the ERUs proposed for treatment—the SFF, MCW, and PJS ecosystems—have historically longer fire intervals and experience higher severity fire than the Forest Service asserts would result from the Project. Revised Plan at 35, 38, 52. The Forest Service itself states that these ERUs are only outside of desired historical conditions because they lack large trees and larger patch sizes, and should have lower frequency, higher intensity fires. FEIS Vol.1 at 92–95, 103. The projected thinning and prescribed burning treatments in these sections of owl habitat are flatly unnecessary, if not outright ecologically counterproductive.

The agencies also fail to acknowledge that the Project intentionally sacrifices owl forage and nesting habitat in favor of general wildlife habitat improvement. The Forest Service is aware that the current densely forested stands and closed canopy structure offer excellent habitat for the threatened owl, but claims that interventions are necessary to enhance habitat component diversity for the wide variety of species in the area. Project EA at 22. The Forest Service does not explain its reasoning for adjusting the balance of equities between species, or justify the destruction of owl habitat. Moreover, the Project EA clearly states that the goals of the Project in piñyon-juniper woodlands—which contain 21,135 acres of owl foraging, dispersal, and wintering habitat—are not those ecological ERU goals listed in the Revised Plan, but rather "objectives related to fire, fuels, and WUI objectives." *Id.* at 14, 23; *see also* Project BA at 14–15. In other words, the Project's plans for significant amounts of owl foraging habitat are not even intended to have ecologically beneficial effects. The agencies simply have no basis to assume that these activities will be entirely beneficial.

Additionally, one of the conservation measures on which the USFWS based its conclusion that the Project would have no adverse impacts sets a 9" dbh limitation upon hand-thinning activities within owl PACs. LOC at 2. But the Forest Service had previously claimed that "there would be little to no substantial change in the risk of active crown fire within treated stands if a 9-inch DBH cap is included in the treatments" and chose not to implement this measure during its alternatives analysis, feeling that it would undercut the goals of the Project. Project EA at 32. The Forest Service has since provided no further explanation as to why it needs to thin and burn within owl PACs when by admission these activities will both harm the owl *and* fail to secure the goals of the Project. Moreover, the tension between the LOC's conservation measure and the Project's stated reticence to implement them casts doubt upon those measure's implementation and efficacy. The Project activities are—per the Forest Service's own assertions—not beneficial, and the agencies do not support their implicit assumption that their effects will be discountable or insignificant.

2. The Forest Service fails to explain why the Project's negative impacts will be insignificant or discountable.

The USFS also drew conclusions contrary to its own accumulated evidence and best available science when assuming that the Project activities will cause only discountable or insignificant effects. Both the USFWS and Forest Service undercalculated the length of time where mechanical thinning and prescribed burn activities would have severely adverse effects on recruitment viability for owl populations. The Project BA states that activity within owl PACs must be prohibited during the breeding season of March 1–August 31 each year.[14] However, owlets do not disperse from the nesting area until mid-September through early-October, and may exhibit begging behaviors and remain partially reliant until then on parents for food. *See* Revised MSO Recovery Plan at 218–19. Additionally, owlets usually leave nests before they can fly and require understory trees to climb from the ground to a safe roost site. *Id.* at 218. Thinning and burning activities within the PACs in September and early October thus pose risks to owlets from the removal of understory trees, the burning of undergrowth, and smoke and noise at a time when navigation and territorial differentiation is essential. The agencies failed to consider the best available science regarding breeding and juvenile dispersal, failed to take a hard look at the impacts of cutting and burning during this crucial period, and therefore drew unwarranted conclusions that the Project's impacts would be insignificant or discountable.

The agencies also failed to take a hard look at the effects of smoke upon adult owls, again arbitrarily concluding that prescribed burning would have only discountable or insignificant effects. The Forest Service based this conclusion upon the dubious assumption that smoke accumulation would be mild and that owls would be able to temporarily relocate away from the smoke if it occurred outside breeding season. Project BA at 27–28. These assumptions are simplistic, and do not account for the actual experiences of owls near a prescribed burn, nor the high nest fidelity displayed by the species. It has been documented that smoke in the Santa Fe National Forest area drifts for miles and contains toxic pollutants and damaging PM2.5. *See* Project Objections at 49–51 (highlighting environmental health impacts on human communities within miles of prescribed burns). Current prescribed burning plots are estimated to average 500 to 1,000 acres in size. Project BA at 8. But activity centers for Mexican spotted owl pairs—i.e., the locations where owls hunt and forage most—outside of the breeding season can be as small as a mere 220 acres in size. Revised MSO Recovery Plan at 174 T.B.3 (citing Ganey et al. 2005). Even without accounting for drifting and lingering smoke, these prescribed burning plots are large enough to drive owls (even temporarily) from their homes and into the territory of other mated pairs, causing significant stress and conflict. The agencies failed to account for this adverse and reasonably foreseeable impact.

Burning taking place at the end of the operational season (i.e., late February) coincides with nest-building season, when territorial owls are most inclined to harass or even wound invaders. For

[14] Presumably a typographical error, the USFWS' Letter of Concurrence lists the owl's breeding season as "March 1–August 3." LOC at 2. This error potentially opens four weeks of activity within owl PACs not originally anticipated by the Encino Vista BA. Moreover, it disarms the needed trigger for reinitiating consultation; logging and burning could occur throughout a full month of owl breeding season, impacting the owl in a manner not actually considered by the agencies, without necessitating formal consultation.

burning taking place at the beginning of the operational season (i.e., September), there are the issues with fledgling and dispersing owlets described above. None of this was appropriately addressed in the agencies' informal consultation. Additionally, the conservation measures set by the USFWS include a limitation to only use low-severity fire within owl PACs, but even the Forest Service predicts some "incidental inclusion" of unanticipated areas within the burns and admits that they do not have full control over burn severity. Project BA at 14, 29. Far from being "discountable," these effects are quite reasonably foreseeable. The unintended consequences of prescribed burning pose serious threats and should be examined further, in formal consultation based on the best available data.

3. The USFWS cannot rely on the proposed mitigation measures because they are insufficiently specific or binding.

The USFWS partially based its concurrence with the Forest Service's finding of no likely adverse impact upon the Project's asserted compliance with current Forest Service Region 3 owl management strategies and the owl-specific PDFs identified as conservation measures in the Forest Service's Environmental Assessment. *See* Project EA, App'x C. These measures are vague, conditional, and should have been examined more rigorously by USFWS before they concurred with the Forest Service's conclusions. Although the Forest Service claims to have abandoned controversial condition-based management strategies in April of 2022, several of these measures retain condition-based and vague language. *See* Project BA at 6; Project BiOp at 4. Other measures include qualifying language that weakens their enforceability, or which focus on best-efforts of the Service rather than actual outcomes for the species. *See* Project EA App'x C: Wild–3 ("prohibited … unless protocol surveys determine"); Wild–7 ("to the greatest extent practicable," "designed to achieve," "could occur into Spring if conditions allow," "some consumption of habitat is unavoidable"); Wild–21 ("monitoring … would occur opportunistically"). The USFWS's LOC does not alter this, accepting the language used by the Service while merely adding an additional vague exception to the prohibition against activities within owl PACs when "logical." LOC at 2; *see also* Project EA, App'x C at 11–13.

The USFWS should have taken a second, genuinely hard look at the Project BA and EA, as not all of the data cited by the Forest Service supports its conclusions. For example, the 2015–2023 4FRI studies on the effects of prescribed burning and mechanical thinning upon owl nesting sites indicate that there may be severe short-term effects upon the species, including the absence of nesting pairs and lower rates of successfully fledged young. *See* Attachment A. Each indicates that such fuels management measures may in fact be harmful to owl populations. The Forest Service acknowledged this, stating in the Revised MSO Recovery Plan that "all of the studies … collectively [] suggest that at least some kinds of mechanical forest treatments may negatively impact spotted owls," but nevertheless ruled adverse impacts to be unlikely. Revised MSO Plan at 206. This conclusion runs counter to the evidence, fails to address the issue in scientific depth, and should have been interrogated by USFWS.

Finally, while blanketly accepting the efficacy of the Forest Service's proposed conservation measures within owl PACs, the USFWS largely ignored the wider effects on roosting, nesting, and forage habitat outside the narrowly drawn PACs, as well as the short- and long-term effects of the Project upon prey species necessary to support owl populations. These effects are significant

enough that the USFWS should have examined the Forest Service's proposals more closely. *See supra*. In short, the agencies' optimistic conclusions that there will be no likely adverse impact upon the Mexican spotted owl are not supported by the facts on record. These impacts cannot be considered discountable, insignificant, or beneficial and therefore do not provide a basis for a finding of no likely adverse impact. 50 C.F.R. § 402.12 The Project is poised to undertake unnecessary, detrimental action in owl PACs premised on faulty reasoning and overconfidence in the Forest Service's vaguely proposed conservation measures. The finding of no likely adverse impact cannot be relied upon, and the agencies must undertake formal consultation regarding the species.

Throughout the Project BA, BiOp, and LOC, the agencies consistently failed to rely on the best available data, failed to establish accurate environmental baselines, failed to consider cumulative impacts, failed to consider the current status of the at-risk species, relied on faulty assumptions, and drew conclusions unsupported by or directly contrary to the evidence before them. The USFWS's determinations that the Project will not jeopardize the Jemez Mountains salamander or adversely affect the Mexican spotted owl are arbitrary and capricious, and the consultations are therefore invalid. The Forest Service cannot rely on them to satisfy its duties under the ESA, and the agencies must promptly and properly reconsult on the Project.

III. Violations of ESA Section 7(a)(1): Failure to Actively Conserve Species

The Forest Service has further violated its independent, substantive obligations under ESA Section 7(a)(1) by failing to undertake effective conservation programs to promote the survival and recovery of the Jemez Mountains salamander and Mexican spotted owl. As a federal agency, the Forest Service has an affirmative duty to "conserve" threatened and endangered species, which means taking proper steps to preserve and increase such species' continuing viability. This is not an abstract or generalized duty; instead, the ESA's plain language requires the agency to take *whatever actions are necessary* to ensure the survival and recovery of each listed species. 16 U.S.C. §§ 1532(3) (defining conservation to include recovery), 1536(a)(1) (agencies have affirmative duty to work towards conservation of species). The ESA does not mandate specific actions, but taking insignificant measures cannot satisfy an agency's obligations under Section 7(a)(1).

The Revised Plan will dictate actions on the Forest for decades to come. It is the Forest Service's best opportunity to put in place meaningful conservation programs and to fully implement the Mexican spotted owl recovery plan. There is no recovery plan in place for the Jemez Mountains salamander, which only amplifies the need for programmatic action by the Forest Service to conserve and recover this critically endangered species which relies almost entirely on the Forest for its survival as a species. The Project, which the Forest Service plans to implement over the course of 20 years and 130,000 acres, is a further missed opportunity for the agency to take concrete steps to meet its conservation duties.

As the Forest Service admits, "[n]o specific conservation actions have been implemented for the [salamander or spotted owl] on the [Forest.]" Plan BA at 69 (owl), 87 (salamander). The agency attempts to wave this oversight away with reference to a "Plan *guideline* [that] requires that project activities and special uses occurring within federally designated critical habitat *should* integrate

habitat management objectives and species protection measures from the most recent approved U.S. Fish and Wildlife Service (USFWS) recovery plan." *Id.* (emphases added). This is inadequate. A guideline is not a binding standard, "should" is not the same as "shall," the spotted owl recovery plan is not itself binding—and the USFWS does not even have a recovery plan for the salamander. Moreover, the Forest Service further limits its non-binding commitment to already occurring projects "within federally designated critical habitat" without even considering whether this will be enough to support conservation of the species on the Forest.

Nor can the Forest Service rely on "management approaches for at-risk species" to meet its conservation duties—far from being binding, management approaches are not even Plan components and cannot be used to satisfy legal obligations under NFMA or the ESA. And the management approaches to which the Forest Service cites are overly vague and passive: It is unclear what "work[ing] collaboratively with other agencies … for the research and management of at-risk species" or "striv[ing] to work with partners to promote public education and valuing of the at-risk species in the forest" entail, much less how effective such unidentified potential actions will be in recovering the spotted owl and salamander. In short, the Forest Service is not committing itself to doing anything in particular, nor has it considered whether the little it may someday choose to do will actually benefit imperiled species in any meaningful way.

Guardians identified multiple concrete and specific actions and mitigations the Forest Service could incorporate into the Revised Plan to promote species conservation including, *e.g.*, further surveys to identify species presence; experimental data collection or solicitation of further science to inform decisions on biological, ethological, and habitat responses to Project actions; consideration of the effects on prey populations for protected predator species; a prohibition on mechanical thinning of trees in salamander habitat; the absolute limitation of thinning and prescribed burning activities to months outside the stated salamander activity window of June 15 – October 31 (alteration to ITS TC 1-4); the use of heavy machinery only where/when there are actual observed dry and frozen conditions occurring (alteration to ITS TC 1-5); ensuring of wildlife biologist surveys both 2–3 weeks prior and 5–6 weeks prior to the use of ground skidding equipment (GSE) in salamander habitat (alteration to ITS TC 1-6); the presence of a wildlife biologist for all GSE use in salamander habitat; a flat prohibition on canopy thinning in owl PACs to retain necessary canopy closure; limitations on prescribed fire use beyond what is currently outlined in the Revised MSO Plan; and extension of the prohibition on Project activities within PACs from March 1 – September 15 (alteration to LOC conservation measure 3) to protect semi-fledged chicks. All of these are supported by the best available science, and the agencies have elsewhere stated that they lack sufficient data regarding the impacts of proposed vegetation management activities on the salamander and owl. Indeed, the agencies have admitted that they cannot even reliably guess at salamander and owl populations on the Forest or range-wide. Despite the clear need for caution, better data, and effective mitigation and conservation measures, the Forest Service declined to adopt any of these concrete provisions in the Revised Plan or implement them in the Project.

The Forest Service has not met its affirmative duty to undertake effective conservation programs to promote the survival and recovery of the Jemez Mountains salamander and Mexican spotted owl, nor has it made any commitment to doing so in the Revised Plan. Instead, it has committed

itself to decades of extensive and intensive logging that will further threaten the salamander and owl and degrade their remaining habitat.

IV. Violations of ESA Section 7(d): Irreversible and Irretrievable Commitment of Resources

Once the agencies have begun consultation—or reconsultation—on any species, the Forest Service may not implement the Project or Plan in any manner that requires an "irreversible and irretrievable commitment of resources" until that consultation has concluded. 16 U.S.C. § 1536(d). The Encino Vista Project will unavoidably require an irreversible commitment of resources in the form of harms to the Jemez Mountains salamander and Mexican spotted owl. As detailed above, the Forest Service must complete valid consultation with the USFWS regarding the Revised Plan and Project's impacts to these protected species; once it reinitiates consultation, the Forest Service cannot take further steps to implement its decisions that would have "the effect of foreclosing the formulation or implementation of any reasonable and prudent alternative measures" that would minimize impacts or avoid jeopardy to these species. *Id.* Any such implementing actions would be grounds for immediate injunctive relief to preserve the species' precarious status quo.

V. Violations of ESA § 9: Unlawful Take

Finally, if the Forest Service implements the Encino Vista Project without completing valid, formal consultation for the Jemez Mountains salamander and Mexican spotted owl, it will be liable under ESA § 9 for any take resulting from the Project.[15]

As explained above, the BiOp and ITS for the salamander are invalid and cannot shield the Forest Service from liability for take due to the Project; even if the BiOp were valid, the Project threatens take of salamanders through several avenues not accounted for in the ITS, *see supra*, and therefore not lawfully permitted. And the Forest Service never obtained an ITS for the spotted owl, so any direct or indirect harm to an owl is a *per se* violation of Section 9. Because the Project is extremely likely to harass, harm, injure, and/or kill members of both species, the Forest Service is at imminent risk of effecting extensive and unlawful take.

The ESA does not require citizens, or the courts, to wait until individual crushed salamanders or wounded owlets are found before enforcing Section 9. Such an interpretation would run directly contrary to the law's unequivocal purpose: to protect and recover imperiled species before it is too late. As the Project threatens imminent harm to salamanders and spotted owls, Guardians will seek appropriate injunctive relief to prevent unlawful take and the other harms detailed above if these violations are not remedied promptly.

[15] The Revised Plan itself cannot directly cause take because it does not actually authorize any specific actions that might harm at-risk species. However, any other actions implementing the Revised Plan may also violate the prohibition on take, as the Revised Plan contemplates a sweeping program of habitat degradation without adequate analysis or mitigation measures. Guardians again cautions against authorizing any further timber sales under the Revised Plan, which may be grounds for further litigation and emergency injunctive relief.

CONCLUSION

WildEarth Guardians, the Forest Advocate, and the Santa Fe Forest Coalition have grave concerns regarding the impact of the Santa Fe National Forest Land Management Plan and the Encino Vista Landscape Restoration Project on the Jemez Mountains salamander and Mexican spotted owl. To avoid litigation, Guardians request that the U.S. Forest Service and the U.S. Fish and Wildlife Service promptly reinitiate consultation to address the violations identified in this notice letter, and that the Forest Service additionally modify the Project to comply with its substantive duties under Section 7 of the ESA. Any implementation of the Encino Vista Project before these steps are taken will further violate Sections 7 and 9 of the ESA, harm and potentially jeopardize threatened species, and warrant emergency injunctive relief.

Thank you for your attention to this matter. Please do not hesitate to contact us with any questions.

Sincerely,

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