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IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF ARIZONA

TUCSON DIVISION

WILDEARTH GUARDIANS, Plaintiff, vs. UNITED STATES FISH AND WILDLIFE SERVICE and UNITED STATES FOREST SERVICE, Defendants.	No. 13-151-RCC **PLAINTIFF'S OPPOSITION TO FEDERAL DEFENDANTS' RULE 59 MOTION**

TABLE OF CONTENTS

I. This Court's decision correctly applies relevant ESA requirements 1

II. The 2012 BiOps make no "rational conntection" between facts and conclusions 3

A. The relationship between Recovery Plans and Biological Opinions 4

B. Different types of monitoring serve different purposes 5

C. Evolution of BiOps, and excision of the monitoring requirement in 2012 6

D. The fatal "disconnect" between the Revised RP and the 2012 BiOps 10

E. Red herrings and recycled arguments do not save the Defendants' case 13

III. An injunction is necessary to prevent irreparable harm. 15

IV. Conclusion 17

I. This Court's decision correctly applies relevant ESA requirements

The Endangered Species Act ("ESA") reflects a policy of "institutionalized caution," and the statutory scheme is intended to "give the benefit of the doubt to preserving endangered species." *Arizona Cattle Growers' Association v. Salazar*, 606 F.3d 1160, 1166-67 (9th Cir. 2010) *see also WildEarth Guardians v. U.S. Fish and Wildlife Service ("WEG 2019")*, 2019 WL 4345333 at * 1 (D. Ariz. 2019). The core provision of the ESA is the prohibition on jeopardy. That provision provides that all federal agencies "shall . . . *insure* that any action [implemented by the agency] is not likely to jeopardize the continued existence of [a listed species] or result in the destruction or adverse modification" of formally designated critical habitat for that species.[1] 16 U.S.C. § 1536(a)(2) (emphasis added). The term "insure" – as used in the ESA – means "to make certain" or "to guarantee." *Defenders of Wildlife v. U.S. Environmental Protection Agency*, 420 F.3d 946, 963-64 (9th Cir. 2005) *rev'd on other grounds sub nom. National Ass'n of Home Builders v. Defenders of Wildlife*, 551 U.S. 644 (2007). This definition provides heavy ballast to the ESA's no jeopardy duty, and dovetails with the requirement that agencies approach their solemn ESA duty to protect biodiversity with "institutionalized caution." *WEG 2019* at *10 (holding that agencies are not permitted to base their ESA compliance "on speculation or surmise").

Plaintiff WildEarth Guardians ("Guardians") alleges that the 2012 Biological Opinions ("BiOps") that the U.S. Fish and Wildlife Service ("FWS") prepared to assess the effects of forest treatments on the Mexican spotted owl ("MSO") are arbitrary and capricious. One of Guardians' claims is that the 2012 BiOps' failure to require long-term

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[1] "An action that jeopardizes a species is one that 'reduce[s] appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species.'" *WEG 2019* at *2 *quoting* 50 C.F.R. § 402.02. The Ninth Circuit construes the term "jeopardize" as follows for purposes of the ESA: "to expose to loss or injury or to imperil." *National Wildlife Federation v. National Marine Fisheries Service*, 524 F.3d 917, 930 (9th Cir. 2008) (quotations omitted).

range-wide population monitoring of the MSO fatally flaws the BiOps.[2] This Court held for Guardians on this claim and entered a partial judgment in its favor. *WEG 2019* at *10-12. This Court's decision on this issue is based on a detailed and comprehensive analysis of the pertinent facts and law which led this Court to the following conclusion:

> The failure to monitor population not only stifles delisting, but fundamentally hampers the ability to assess recovery.
>
> . . . .
>
> [The USFS's argument that] it does not bear the responsibility for finding a solution to monitoring . . . provides no accountability. In twenty-three years, this method has failed to bring the MSO closer to being delisted. In allowing the effort to be "collaborative" there is no one entity that is committing an ESA violation. The failure to monitor MSO populations gets a pass, and neither the USFS nor FWS are responsible for specific measures to quantify the MSO population or ensure that current Forest Plans are making strides towards delisting the MSO. The Court agrees with Plaintiff that this shirking of responsibility is impermissible.
>
> . . . .
>
> The BiOps simply do not provide a route to recovery or a way to accurately assess it. The no-jeopardy determination is unsupported, arbitrary, and capricious because the finding failed to account for recovery of the MSO.

WEG 2019 at *11-12.

The Federal Defendants have filed a Rule 59 motion challenging the Court's reasoning. ECF Doc. No. 104. The motion is a desperate grasp at a straw that doesn't exist in the law. The Federal Defendants argue that this Court erred because – in their telling of the requirements of the ESA – they have no obligation to "provide a route to recovery." The Federal Defendants' quibble with this Court's decision has no basis in law, and Guardians respectfully submits that it should be denied.

This Court's comprehensive analysis cites to the exhaustive record evidence regarding the critical importance of long-term range-wide population monitoring to the "adaptive management" ("AM") approach which the FWS endorses for conservation and

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[2] Guardians argues that the flaw leads ineluctably to a finding that the FWS violated the ESA by preparing arbitrary and capricious BiOps, and to an associated finding that the USFS's reliance on the illegal BiOps constitutes a separate violation of the ESA by the U.S. Forest Service ("USFS").

recovery of the MSO. *WEG 2019* at *4 (finding that the AM plan will fail in the absence of population monitoring). This Court also discusses the fact that the USFS has failed to commit to this long-term range-wide monitoring in the twenty-three year period since the 1995 Recovery Plan ("RP") was issued. *Id.* at *11. And crucially (Guardians respectfully submits that this is the dispositive fact), this Court finds that the 2012 BiOps fail to incorporate any long-term range-wide population monitoring requirement – thereby dooming the success of the AM approach. *Id.* at *5, *12 (holding that the inclusion of monitoring recommendations in a non-enforceable RP does not "show compliance with the ESA" since the FWS did not "incorporate those measures into the BiOp").

The Court's decision evidences a clear understanding that the "route to recovery" for the MSO – which indisputably requires the implementation of a long-term range-wide population monitoring plan – exists independently of the 2012 BiOps. That "route to recovery" has existed in largely the same fashion since development of the 1995 RP: it is an AM program with a strong reliance on long-term range-wide population monitoring to test and validate assumptions regarding specific forest treatments on national forest lands. The fatal flaw in the 2012 BiOps – as expressly and correctly found by the Court – is that they fail to incorporate any requirement for such monitoring, and thereby veer wildly off the well-established route to recovery.

II. The 2012 BiOps make no "rational conntection" between facts and conclusions

The narrow legal issue now before this Court is whether there is a "rational connection" between (1) the FWS's decision to relieve the USFS of any and all obligation to conduct long-term range-wide population monitoring in the 2012 BiOps and (2) the "no jeopardy" conclusion of those BiOps. *Turtle Island Restoration Network v. U.S. Dep't of Commerce*, 878 F.3d 725, 737, 739 (9th Cir. 2017) (holding that a challenged BiOp was arbitrary and capricious because the consulting agency failed to "articulate a rational connection between [its population modeling] and its no jeopardy conclusion" or "a rational connection between the best available science and its conclusion"), *see also Wild Fish Conservancy v. Salazar*, 628 F.3d 513, 526-28 (9th Cir. 2010) (same). This

case does *not* require the Court to assess the adequacy or the merits of the MSO RPs issued by the FWS, which Recovery Plans are not challenged in this case. Rather, the narrow and precise legal issue before the Court is whether – in the 2012 BiOps at issue here – the FWS articulated a rational connection between its decision to forego a requirement for long-term range-wide population monitoring and the BiOps' no jeopardy conclusions. The answer to this question is clearly no, as this Court correctly held.

A. The relationship between Recovery Plans and Biological Opinions

This Court correctly characterized the purpose of an RP which is to "promote the conservation of [listed] species" by describing "such site-specific management actions as may be necessary to achieve the plan's goal for the conservation and survival of the species" and by identifying "objective, measurable criteria which, when met, would result in a determination" that the species can be delisted. *WEG 2019* at *2 *citing* 16 U.S.C. § 1533(f)(1). RPs "serve as guidance for recovery but do not create legally enforceable duties." *WEG 2019* at *2 *see also Cascadia Wildlands v. Bureau of Indian Affairs*, 801 F.3d 1105, 1114 n. 8 (9th Cir. 2015) (stating that "generally, [RPs] are not mandatory").

BiOps, on the other hand, *are* binding and enforceable. In *Bennett v. Spear*, 117 U.S. 1154 (1997), the Supreme Court discussed the essential nature of BiOps, and held that "in reality [BiOps have] a coercive effect on the action agency":

> A Biological Opinion . . . alters the legal regime to which the action agency is subject . . . . [A] Biological Opinion's Incidental Take Statement constitutes a permit authorizing the action agency to "take" the endangered or threatened species so long as it respects the [FWS's] "terms and conditions." The action agency is technically free to disregard the Biological Opinion and proceed with its proposed action, but it does so at its own peril.

Id. at 1164-65. For this reason, the Supreme Court holds that BiOps have a "virtually determinative effect" on agency action. *Id.* at 1165 *see also San Luis & Delta-Mendoza Water Authority v. Salazar*, 638 F.3d 1163, 1170 (9th Cir. 2011) (recognizing that BiOps have "a powerful coercive or determinative effect" on agency action), *Wild Fish Conservancy*, 628 F.3d at 530 (holding that an action agency is "required to comply" with the provisions of a BiOp's Incidental Take Statement).

It is clear that the FWS understands the critically important role that its BiOps play in assuring the conservation and recovery of the MSO through "coerced" implementation of the RPs' recommendations. The FWS made this connection between the RP and its BiOps clear in the 2012 Revised RP for the MSO:

> Maintaining and restoring forest health to reduce the threat of stand-replacing Wildlands fire, while creating a mosaic of suitable Mexican spotted owl habitats and protecting existing populations, *will be achieved by land use management, facilitated by Section 7 consultations and agreements.*

AR-FS 9623 (emphasis added). It is clear that the FWS's guiding assumption in preparing the MSO RPs is that the *recommendations* set out therein would be converted into mandatory and enforceable *requirements* as they were incorporated into BiOps. The FWS failed to take this crucial step to connect its RPs to the 2012 BiOps, thereby relieving the USFS of population monitoring obligations. *WEG 2019* at * 11 (finding that the 2012 BiOps give the agencies a "pass"). As this Court correctly found, the FWS *did not* include any requirement for long-term range-wide population monitoring in the 2012 BiOps, *WEG 2019* at *5, *12, despite the FWS's determination that "it is critically important to monitor owl populations and habitat to determine whether both are stable or improving." AR-FWS R450 *see also id.* at R546 ("[w]ithout careful and rigorous application of monitoring, there would be no objective basis for delisting the owl").

B. Different types of monitoring serve different purposes

For purposes of ths motion, it is important to distinguish between three different types of monitoring, each of which serves a separate objective. First, and most importantly for purposes of this case, there is "population monitoring." This type of monitoring – which can be pursued through demographic studies (as contemplated by the 1995 RP and the 1996 BiOp) or through a streamlined approach called "occupancy monitoring" (as contemplated by the Revised RP and the 2005 BiOp) – is utilized to determine long-term range-wide populations trends of MSO. Population monitoring "is conducted at a large enough scale (typically range-wide) to provide information regarding population trend (i.e., is the species increasing, decreasing, or stable)." AR-FWS 7578.

Second, there are "owl surveys" which "can provide information regarding the presence of absence of MSOs in a specific area . . . but *do[] not* provide population level indicators of the species' general population trend." *Id.* (emphasis added). Third, and finally, there is "implementation monitoring" which is project-related site-specific monitoring that includes information "such as when or if a project is implemented, whether the project was implemented as analyzed in the site-specific BiOp . . ., breeding season(s) over which the project occurred, relevant MSO survey information, and any other pertinent information about the project's effects on the species." AR-FWS 7601. As with owl surveys," "implementation monitoring" does not provide information as to long-term range-wide population trends of the MSO or the status of the species.

To be absolutely clear on this point, the FWS stresses that population trend data *cannot* be acquired through "implementation monitoring." The 2012 BiOps admit that "implementation monitoring" can provide information regarding "the incidental take associated with [a] site-specific action," but *not* the information necessary "to assess the status of the MSO." AR-FWS 7601 *see also WEG 2019* at *11 (finding that implementation monitoring "does not provide adequate information to guide a jeopardy analysis about recovery").

C. Evolution of BiOps, and excision of the monitoring requirement in 2012

The FWS has issued three programmatic BiOps to assess the impacts of USFS forest treatments on the MSO: the 1996 BiOp, AR-FS 697, the 2005 BiOp, AR-FS 2150, and the 2012 BiOps at issue in this case. The 1996 BiOp was prepared pursuant to an order of Judge Muecke of this district. *Silver v. Thomas*, 924 F.Supp. 976, 984-85 (D.Ariz. 1995). That BiOp – like all other analyses of the MSO prepared since that time – conceded (1) that the available data made it impossible to make a "reliable estimate" of the MSO's population and (2) that "[h]istorical data about distribution of the owls lacks sufficiency to allow the Mexican Spotted Owl Recovery Team to estimate changes in the number or distribution of the species from historical to present time." AR-FS 705. Nonetheless, based on the AM program set out in the 1995 RP and incorporated into the

relevant Forest Plans by the 1996 Standards and Guidelines, the FWS reached a no jeopardy conclusion in the 1996 BiOp. Significantly, that no jeopardy conclusion was made expressly conditional on a mandatory requirement for implementation of the long-term range-wide population monitoring described in the 1995 RP[3]:

> Population monitoring is required to determine that the anticipated incidental take, along with the other consequences of implementation of the proposed action, is not causing a detectable decline in the population of the owl.
>
> Population monitoring will follow the design in the proposed action and beginning on page 107 of the Recovery Plan [AR-FS 157].
>
> The Forest Service will initiate the pilot study for the population monitoring program within one year of the date of this biological opinion, and make timely progress thereafter towards full implementation.

AR-FS 730.

The FWS's 2005 BiOp also resulted in a no jeopardy conclusion for the MSO. Just like the 1996 BiOp that it replaced, the 2005 BiOp's no jeopardy conclusion was conditioned on these mandatory and enforceable long-term range-wide population monitoring requirements that were incorporated into the Incidental Take Statement:

> Monitor Mexican Spotted Owl occupancy on National Forest System lands, pursuant to the most current approved Mexican Spotted Owl Recovery Plan.
>
> . . . .
>
> [M]onitor Mexican Spotted Owl PAC occupancy pursuant to the most recent version of an approved Recovery Plan for this species. This monitoring scheme will assess the changes in owl site occupancy rates so that management actions can be adjusted if changes in owl population occur.

AR-FS 2341-42.

In stark contrast to the 1996 and 2005 BiOps, the 2012 BiOps entirely dispensed with the requirement for long-term range-wide population monitoring. The population

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[3] This requirement was imposed as part of the BiOps' Incidental Take Statement. As discussed above, the Supreme Court's decision in *Bennett* and that decision's progeny hold that such provisions have "determinative effect" and are mandatory and enforceable.

monitoring requirements of the 1996 and 2005 BiOps – which had been incorporated into the previous BiOps' Incidental Take Statements – were replaced in the 2012 BiOps by an entirely dissimilar "implementation monitoring" requirement that will provide no information on MSO population trends or the species' status. AR-FWS 7600-01.

The excision of the long-term range-wide population monitoring requirement from the 2012 BiOps appears to have been the result of political pressure from USFS "executives," and was contrary to the advice and recommendations of FWS biologists working on the BiOps. By the time that the 2012 BiOps were being prepared, the FWS had already developed a new approach to the long-term range-wide population monitoring conundrum. The Draft Revised RP endorsed a streamlined approach to this crucial monitoring task which required long-term monitoring of a randomly selected subset of MSO Protected Activity Centers ("PACs") across the species' range, instead of monitoring *all* PACs. AR-FWS R568-71.

The USFS balked at the FWS's plan to incorporate a requirement for this streamlined population monitoring into the BiOps as a condition to a no jeopardy opinion. A draft of the 2012 BiOps contained a paragraph in which the FWS states that the USFS had committed to participate in the population trend monitoring program:

> As part of the proposed action, the USFS Region 3 has agreed to participate in the population occupancy monitoring pursuant to the procedures provided by the Mexican Spotted Owl Recovery Team and outlined in the Draft Revised Recovery Plan . . . [T]he USFS has agreed to assist with monitoring owl occupancy within a . . . framework pursuant to procedures provided by the Mexican Spotted Owl Recovery Team in order to evaluate trends in the overall population.

AR-FWS 1639. This proposed language was reviewed by the USFS, where it triggered the firmest possible rebuke. One USFS reviewer wrote: "At this time, Region 3 has not agreed to participate in population occupancy monitoring." *Id.* A second USFS reviewer wrote: "The FS did not agree to this. The FS offered to initiate discussions regarding this new approach in the revised Recovery Plan." *Id.* A third USFS reviewer was less restrained than her colleagues in her categorical rejection of any notion that the USFS had committed itself to participate in the implementation of a population monitoring program

– even the streamlined version developed to facilitate implementation:

> ABSOLUTELY NOT. FS HAS NOT SUGGESTED THAT WE WANT TO INCLUDE THE MSO RECOVERY PLAN OCCUPANCY MONITORING AS PART OF THE [FOREST PLAN] PROPOSED ACTION. *FS WANTS THIS MONITORING SEPARATED FROM THE ESA § 7 PROCESS OR PLACE [sic] IN THE CONSERVATION RECOMMENDATIONS AT MOST*.

Id. (capital letters in original and emphasis added).[4] Ultimately, as this Court found, the FWS decided *not* to condition the 2012 BiOps on a long-term range-wide monitoring requirement. *WEG 2019* at *5 (finding that the BiOps "did not . . . specifically incorporate" a population monitoring requirement), *12 (finding that a population monitoring requirement is not incorporated into the BiOps).

The record is clear that the FWS biologists had serious misgivings regarding the excision of the long-term range-wide population monitoring requirement, and resisted the move as a violation of the ESA. Notes of an August 18, 2010[5] meeting between the FWS and the USFS show that the USFS argued that "monitoring should assess the effects of the action as the result of the implementation of projects on the ground, *not involve monitoring of species occupancy*." AR-FWS 4317 (emphasis added). Subsequent intra-FWS e-mail correspondence of August 23 and 24, 2010 demonstrates the FWS's concern with the USFS's intransigence. AR-FWS 6713-16. In that correspondence, the FWS sought its solicitor's opinion as to the USFS's proposal to "say something quite different" from the 1996 and 2005 BiOps insofar as MSO monitoring is concerned. AR-FWS 6714. To its solicitor, the FWS described the impasse with the USFS as follows:

> [T]hey only want to monitor implementation of the proposed action. In other words, they would be reporting back whether the project occurred and if the take that we anticipated occurred. *They would not be doing any*

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[4] As opposed to the provisions of an Incidental Take Statement, "conservation recommendations" incorporated into a BiOp are discretionary – *not* mandatory and enforceable requirements. 50 C.F.R. § 402.02.

[5] These 2010 communications were convened when it became apparent that the USFS was *not* complying with the population monitoring requirement of the 2005 BiOp, and that the issuance of a superceding BiOp would be a legal necessity.

> *monitoring to determine what the effects of the project were to the species or [critical habitat]. According to the regs, we need to do both.*

AR-FWS 6715 (emphasis added). As of August 26, 2010, the FWS was still standing its ground on the necessity of a long-term range-wide population monitoring requirement. In a USFS "Briefing Paper" of that date, the USFS stated that "we have been notified by the FWS that their solicitor (Justin Tade) is advising that they **do not** amend the BiOp" by deleting the population monitoring requirement, and that "executive level discussions" would be needed to resolve the impasse. AR-FS 4319 (emphasis in original).

Ultimately, the USFS prevailed in this dispute – presumably as a result of the matter being taken out of the hands of the expert FWS biologists who had been working on this issue for years and being referred to the relevant "executives." The result: the first programmatic BiOp on national forest management that fails to include a long-term range-wide population monitoring requirement for MSO – which monitoring is the very heart of the AM approach for conservation and recovery of the MSO. *WEG 2019* at *9 *citing* AR-FS 6978 (finding that the 2012 BiOps "replace" the population monitoring required by the 1996 and 2005 BiOps and "limit[] monitoring to 'site-specific projects'").

D. The fatal "disconnect" between the Revised RP and the 2012 BiOps

AM is an iterative process requiring a flow of information feedback from robust monitoring in order to validate management assumptions and verify the appropriateness of forest treatments:

> The [FWS] has defined [AM] as a structured process for learning by doing and a method for examining alternative strategies for meeting measurable biological goals and objectives, and then, if necessary, adjusting future conservation management actions according to what is learned.

Greater Yellowstone Coalition v. Servheen, 665 F.3d 1015, 1029 n.5 (9th Cir. 2011) (internal quotations and citation omitted). In a 2012 paper entitled "Putting Science into Action on Forest Service Lands," Dr. William Block – who was the USFS's principal MSO biologist and the Leader of the MSO Recovery Team in 2012 – discussed how this approach is intended to work: the Federal Defendants' plan was to act in a "staged" or iterative fashion where the population effects of the recommended forest treatments

"would be assessed [through monitoring] to identify the next course of action." AR-FS 9372. "Depending on the outcome of these assessments, treatments could continue, discontinue, or be adjusted." *Id. see also WEG 2019* at * 4 (discussing the iterative process of the MSO AM approach).

This Court recognizes that the MSO AM approach envisioned population monitoring as one of the legs of a three-legged stool, and that the approach would fail in the absence of that population monitoring. *Id.* There is no dispute about the fact that long-term range-wide MSO population monitoring was required by the 1996 and 2005 BiOps. Accurate information provided by rigorous monitoring is the *sine qua non* of scientifically defensible AM. And there is no dispute that such monitoring had not occurred – and that the USFS resolutely refused to commit to such monitoring – at the time the FWS issued the 2012 BiOps. Finally, there is no dispute that the 2012 BiOps are a sharp departure from the 1996 BiOp and the 2005 BiOp, in that the 2012 BiOps contain no requirement for long-term range-wide population monitoring. The omission of this monitoring requirement kicked out one of the legs of the conceptual three-legged stool of the AM program, and condemned the program to certain failure. *See* Exhibit 1 at ¶ 3-7 (wildlife population biologist Derek E. Lee states that the FWS cannot render "an informed opinion" regarding jeopardy "[w]ithout robust population monitoring," and that the absence of monitoring "is a fatal flaw to the AM program that precludes "informed decisions as to [] impacts" of forest treatments).

The FWS offered no explanation whatsoever in the 2012 BiOps – not even a hint of a suggestion – as to how the AM approach to MSO conservation and recovery can be accomplished in the absence of the population monitoring which *all* parties (outside of litigation) admit is crucial to the approach's success. The absence of any rationale for this crucial omission in the BiOps is dispositive. The last paragraph of the BiOps' no jeopardy conclusion makes the FWS's irrational action pellucidly clear. It states:

> Across the range of the MSO, the population monitoring described within the 1995 Recovery Plan was never implemented because it was not economically or operationally feasible. A revised population monitoring

> procedure has been outlined in the Draft Recovery Plan which aims at assessing MSO population trends[6] . . . . *[S]ome level of range-wide MSO population monitoring is needed in order for us to assess the status of the MSO.*

AR-FWS 7597 (emphasis added). Irrationally, the BiOps go on to relieve the USFS of all responsibility for population monitoring in the accompanying Incidental Take Statements – even after expressly acknowledging the necessity for that monitoring in the BiOps' no jeopardy conclusions. There is no scientifically defensible way to justify the omission of the population monitoring requirement, and the omission of that requirement was a fatal blow to the AM program. *See* Exhibit 1 at ¶¶ 4-6, 12-16 (without population monitoring "the FWS has absolutely no scientific basis" to support a no jeopardy BiOp). The FWS's failure to establish any sort of rational connection between its decision to excise the population monitoring requirement from the 2012 BiOps and the BiOps' no jeopardy conclusions was arbitrary and capricious, and correctly led this Court to hold that the BiOps are invalid for this reason.

In light of the "institutionalized caution" required by the ESA, courts and commentators acknowledge "the extent to which overly flexible adaptive management schemes do not fit neatly within the ESA's existing regulatory structure." *Natural Resources Defense Council ("NRDC") v. Kempthorne*, 506 F.Supp.2d 322, 352-53 (E.D. Cal. 2007) *see also Greater Yellowstone Coalition*, 665 F.3d at 1028 n. 5 (stating that "while adaptive management has become the dominant agency response to scientific uncertainty, it can be difficult to evaluate against the substantive requirements of environmental laws such as the ESA"). In "Adaptive Management to Protect Biodiversity: Best Available Science and the Endangered Species Act," O. Odom Green at al. (U.S. Environmental Protection Agency Papers 2012), the authors state that "[t]he legal criticisms of [AM] have centered on agencies using the term [AM] *as a means to*

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[6] That revised monitoring procedure is based "on monitoring occupancy rates as an index of population size," and was proposed as a feasible and cost-saving approach for MSO population monitoring. AR-FWS R782-83.

allow for informal management or to shirk management responsibility altogether." Another commentator notes that "[AM] *can be used as a smokescreen to conceal political accommodations that sacrifice the protection of species or natural systems*." H. Doremus, "Adaptive Management, the Endangered Species Act, and the Institutional Challenges of New Age Environmental Protection," 41 Washburn L.J. (2001). Unfortunately, the 2012 BiOps make clear that, in the case of the MSO, AM is serving just these nefarious purposes.

Despite the uneasy fit between an adaptive management approach and the "institutionalized caution" required by the ESA, it is true that "[AM] can be beneficial and that flexibility is a necessary incident of [AM]." *NRDC*, 506 F.Supp.2d at 356. However, the ESA imposes limits on that flexibility, and – as this Court correctly held – those limits were passed in this case where the USFS took full advantage of all the benefits offered by AM (through the implementation of forest treatments with unknown impacts) but steadfastly refused to shoulder the concomitant burden to monitor the impact of those treatments on the species' range-wide population trend. The 2012 BiOps were, at their core, "structurally flawed" by the FWS's failure to account for this simple reality in the their jeopardy analysis. *Turtle Island*, 878 F.3d at 739. The federal government's carping about three words in this Court's decision – "route to recovery" – is a tempest in a teapot: because the FWS failed in the 2012 BiOps to offer any sort of explanation as to how it can accomplish AM in the absence of crucial population monitoring, there is simply no rational basis for the 2012 BiOps' no jeopardy conclusions. *See* Exhibit 1 at ¶¶ 3, 7, 9. This Court correctly ruled for Guardians on this issue.

E. Red herrings and recycled arguments do not save the Defendants' case

The Federal Defendants argue that they have implemented the streamlined population monitoring plan described in the Revised RP for six years and "anticipate" conducting further monitoring. Motion at 9. This statement is irrelevant and has no legal weight. First, this Court correctly held that "future measures" must be incorporated into a BiOp as *requirements* "to support a 'no jeopardy' decision." *WEG 2019* at *12 *citing*

Center for Biological Diversity v. Rumsfeld, 198 F.Supp.2d 1139, 1154 (D.Ariz. 2002) *see also National Wildlife Federation*, 524 F.3d at 935-36 (holding no jeopardy conclusions must be premised on "specific and binding plans" and a "definite commitment of resources"). Second, the USFS has *still* not committed to implementation of the long-term range-wide population monitoring program specified in the Revised RP. It funds the monitoring on an annual basis, and has not committed resources to funding that monitoring over the long-term. *See* Exhibit 2.

The Federal Defendants also argue that the results of long-term range-wide population data cannot be used to establish a population trend without ten years of data. Motion at 2, 9. This is simply incorrect. Only three data points are necessary to establish a trend. *See* Exhibit 1 at ¶ 20. Indeed, even the contractor currently performing the streamlined MSO population monitoring began reporting a trend in the range-wide MSO population after having acquired three years of data. *See* Exhibit 3. The contractor's latest report is attached to the Federal Defendants' motion, and reports a current downward trend in the range-wide MSO population. *See* ECF Doc. 104-2 at 52 of 87. It is true that the RP's "recovery criteria" do not permit delisting until after ten years of data are acquired, but this is a different issue entirely: as explained above, the MSO AM approach contemplates the acquisition of population trend data on an on-going basis in order to validate assumptions about the impacts of forest treatment actions.[7]

The Federal Defendants also contend – without any cite to the record in this case – that the Forest Plans which are the subject of the 2012 BiOps are "largely beneficial" for

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[7] The Federal Defendants' argument that this Court's decision means that "all USFS projects affecting the owl should be enjoined until 2023" (which is the earliest that the MSO can be delisted *if* the recovery criteria are met) is patently absurd and a gross misinterpretation of this Court's order. Motion at 9, 14. The only reason that the Court entered *any* injunction in this case is because the 2012 BiOps failed to establish a rational connection between the omission of the population monitoring requirement and the BiOps' no jeopardy conclusion. When that flaw is corrected, and the FWS issues BiOps that comply with the ESA in all respects, the injunction will presumably dissolve.

the MSO. Motion at 4. This egregious assertion is inconsistent with the evidence in the record which acknowledges that – at the time that the 2012 BiOps issued – the FWS and the USFS had failed to conduct any analyses at all to determine the *actual* impacts of forest treatments in MSO habitat. The Revised RP is clear on this point:

> Empirical data on the effects of thinning and other mechanical forest treatments on [MSO] are nonexistent. This is unfortunate, because thinning and other mechanical forest treatments are emphasized heavily in plans for landscape-restoration of southwestern forests, and these activities could affect large areas of [MSO] habitat. Consequently, understanding how these treatments affect [MSOs] is one of the major questions faced in integrating recovering this owl with plans for restoring southwestern forests. Although this has been clearly noted for years, no studies on this topic have been funded to date.
>
> As noted earlier, empirical data on effects of forest treatments on spotted owls are sparse and difficult to interpret. Although all of the studies discussed above individually present limits to interpretation, collectively they suggest that at least some kinds of mechanical forest treatments may negatively impact spotted owls. No clear guidance emerges from these studies relative to types, extents, or spatial arrangement of treatment that might minimize impacts to owls. Such information is badly needed if management is to proceed in owl habitat. Some treatments may have beneficial or neutral effects, but we do not know which types and intensities of treatments may be beneficial, neutral, or harmful.

AR-FS at 9759, 9761 *see also* Exhibit 1 at ¶¶ 21-22. To be clear, Guardians is *not* arguing in this case that all forest treatments are presumptively bad for the MSO, and Guardians concedes that some treatments may be beneficial. However, the evidence in the record simply fails to support the Federal Defendants' astonishingly reckless assertion regarding the effects of the Forest Plans. *See Wild Fish Conservancy*, 628 F.3d at 528 (holding that a valid jeopardy analysis of an action's impact on listed requires a balancing of both its positive and negative effects).

III. An injunction is necessary to prevent irreparable harm

The Ninth Circuit's decision in *Cottonwood Environmental Law Center v. U.S. Forest Service*, 789 F.3d 1075 (9th Cir. 2015), sets out the standard for injunctive relief in an ESA case. "[W]hen evaluating a request for injunctive relief to remedy an ESA procedural violation, the equities and public interest factors *always* tip in favor of the

protected species."[8] *Id.* at 1091 (emphasis added). A plaintiff must still "show irreparable injury to justify injunctive relief," but this is not a heavy burden. *Id.* The Ninth Circuit instructs that "[i]n light of the stated purposes of the ESA in conserving endangered and threatened species and ecosystems that support them, establishing irreparable injury should not be an onerous task for plaintiffs." *Id.*

The only actions that remain enjoined by this Court's Order are actions in MSO habitat. Guardians respectfully submits that all such actions should remain enjoined pending issuance of BiOps that comply with the ESA in all respects. As Guardians discusses above, the Revised RP leaves no doubt about the fact that the federal government's failure to study the effects of forest treatments on MSO populations has created a situation in which there is no "[e]mpirical data on the effects of thinning and other mechanical forest treatments on [MSO]." AR-FS 9759. The Revised RP admits "that at least some kinds of mechanical forest treatments may negatively impact spotted owls," but that "we do not know which types and intensities of treatments may be beneficial, neutral, or harmful." AR-FS 9761. The Revised RP expressly states long-term range-wide population monitoring (identified as "Recovery Action 7") is a "Priority 2 action," meaning that it is "necessary to prevent extinction or a significant decline in population." AR-FS 9632, 9636, 9644. According to Dr. Lee, the failure of the Federal Defendants to implement AM's crucial population monitoring is especially alarming "[b]ecause a small population has an inherently high probability of extinction," and by the time that the USFS learns the *actual* effects of its forest treatments "it may be too late to assure the continued survival and recovery of the MSO." Exhibit 1 at ¶ 10, 17, 25.

The Federal Defendants have had twenty-three years to validate their assumption

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[8] Despite this admonition, the Federal Defendants make irrelevant and unsubstantiated equities arguments in their Rule 59 motion, citing to declarations of USFS and FWS biologists who are in no way qualified to offer an opinion on the injunction's economic impact. Furthermore, the equities are *not* one-sided as discussed in an editorial published in the Santa Fe New Mexican, *see* Exhibit 4, but Guardians will not further discuss this issue in light of its legal irrelevance.

that the forest treatments authorized by the Forest Plans do not have a *net* negative impact on the MSO, but they have chosen not to fund any studies to accomplish this critical task. AR-FS 9759. The Revised RP acknowledges that the USFS's forest treatments in MSO habitat have some – as yet unquantified – degree of "negative[] impact [on] spotted owls," but the government has not troubled itself to undertake a full, comprehensive, and scientifically defensible analysis to assess the quantum of that impact. They have had that same amount of time to develop and commit to a feasible population monitoring program, and similarly failed to perform that task. Their reckless approach to the conservation and recovery of the MSO constitutes irreparable injury to Guardians' interests in the survival and recovery of the MSO, and clearly passes the threshold for injunctive relief set out by the Ninth Circuit in its *Cottonwood* decision.

IV. Conclusion

With respect to the issue *sub judice*, this Court's September 12, 2019 decision was compelled by the requirements of the ESA and Guardians respectfully submits that it should not be altered on the merits. Insofar as injunctive relief is concerned, Guardians respectfully submits that all treatments in PACs and MSO Recovery Habitat[9] should remain enjoined pending issuance of BiOps that comply with the ESA – subject to the exceptions previously made by this Court. The Revised RP makes it clear that the survival and recovery of the MSO depend on the identification and careful management of PACs and Recovery Habitat across the MSO's range, and classifies such identification and management as a Priority 2 action "necessary to prevent extinction or a significant decline in population." AR-FS 9629-30, 9636, 9638-39.

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[9] Recovery Habitat "occurs in forest types and in rocky canyons used by owls for roosting, foraging, dispersal, and other life history needs, but outside of PACs. Recovery Habitat is intended to: 1) provide protection for areas that may be used by owls; 2) foster creation of roost/nest habitat; 3) simultaneously provide managers with greater management flexibility than is allowed in PACs; and, 4) facilitate development and testing of management strategies that could be applied in PACs." AR-FS 9812 *see also* AR-FS 9834 (depicting the extent of PAC and Recovery Habitat in an example situation).

Dated: October 28, 2019.

Respectfully submitted,

/s/ Steven Sugarman

Steven Sugarman
347 County Road 55A
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(505) 672-5082
stevensugarman@hotmail.com

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of this Plaintiff's Opposition to Federal Defendants' Rule 59 Motion was served on counsel of record on October 28, 2019 through the Court's electronic CM-ECF system.

/s/ Steven Sugarman
Steven Sugarman

IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF ARIZONA

TUCSON DIVISION

WILDEARTH GUARDIANS,	)	No. 13-151-RCC
	)	
Plaintiff,	)	
	)	
vs.	)	**DECLARATION**
	)	**OF DEREK E. LEE**
UNITED STATES FOREST SERVICE and	)	
UNITED STATES FISH AND WILDLIFE	)	
SERVICE,	)	
	)	
Defendants.	)	
	)	

I, Derek E. Lee, declare as follows:

1. The facts set forth in this declaration are based on my personal knowledge and expertise. If called as a witness, I could and would competently testify thereto under oath. As to those matters which reflect a matter of opinion, they reflect my personal expert opinion and judgment upon the matter.

2. I am a wildlife population biologist and Associate Research Professor in Biology at Pennsylvania State University. I have a Bachelor's degree in Anthropology from University of California, Santa Barbara, a Master's degree in Natural Resource

Management from Humboldt State University, and a PhD in Ecology and Evolutionary Biology from Dartmouth College. I was one of the principal investigators on several major studies on Spotted Owl populations. I was also a principal investigator of several studies that examined monitoring data in order to evaluate the effectiveness of land management decisions on wildlife populations, including Spotted Owls. I have worked in the Coconino National Forest in Arizona collecting population and habitat data on the Mexican Spotted Owl ("MSO") [1], and published on MSO population response to land management. My particular expertise is relevant to the issue of how to monitor populations and habitat of MSO and other endangered species in the manner necessary to making informed and scientifically defensible recovery and jeopardy decisions under the U.S. Endangered Species Act ("ESA"). The published, peer-reviewed scientific articles from my research include the following:

a. Lee DE. 2018. Spotted owls and forest fire: a systematic review and meta-analysis of the evidence. Ecosphere 9:e02354. doi: 10.1002/ecs2.2354.
b. Lee DE. 2018. Evaluating Conservation Effectiveness in a Tanzanian Community Wildlife Management Area. Journal of Wildlife Management DOI: 10.1002/jwmg.21549.
c. Lee DE, Bond ML. 2018. Quantifying the ecological success of a community-based wildlife conservation area in Tanzania. Journal of Mammalogy 99:459-464.
d. Lee DE, Bond ML. 2016. Precision, accuracy, and costs of survey methods for giraffe *Giraffa camelopardalis*. Journal of Mammalogy 97:940-948.

[1] Acronyms used throughout this Declaration: AM = Adaptive Management; BiOp = Biological Opinion; ESA = Endangered Species Act; FWS = United States Fish and Wildlife Service; MSO = Mexican Spotted Owl; RRP = Revised Recovery Plan; USFS = United States Forest Service.

e. Bond ML, Bradley C, Lee DE. 2016. Foraging habitat selection by California spotted owls after fire. Journal of Wildlife Management 80:1290–1300.

f. Lee DE, Bond ML. 2015. Occupancy of California Spotted Owl sites following a large fire in the Sierra Nevada, California. Condor 117:228-236.

g. Lee DE, Bond ML, Borchert MI, Tanner R. 2013. Influence of fire and salvage logging on site occupancy of Spotted Owls in the San Jacinto Mountains of southern California. Journal of Wildlife Management 77:1327-1341.

h. Bond ML, Lee DE, Siegel RB, Tingley MW. 2013. Diet and home range of California Spotted Owls in a burned forest. Western Birds 44:114-126.

i. Lee DE, Bond ML, Siegel RB. 2012. Dynamics of California Spotted Owl breeding-season site occupancy in burned forests. Condor 114:792-802.

j. Bond ML, Lee DE, Siegel RB, Ward JP. 2009. Habitat use and selection by California Spotted Owls in a post-fire landscape. Journal of Wildlife Management 73:1116-1124.

3. The 2012 Biological Opinions ("BiOps") challenged by WildEarth Guardians in this lawsuit fail to account for survival and recovery of the MSO due to a lack of range-wide population monitoring and habitat monitoring. Section 7 jeopardy analysis under the ESA must evaluate whether an action "reduce[s] appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species." 50 C.F.R. § 402.02. Without robust range-wide monitoring of population and habitat to know trends and impacts of proposed actions to reproduction, numbers, and distribution of MSO, then it is entirely impossible for the U.S. Fish and Wildlife Service ("FWS") to make an informed opinion about the likelihood of the species' survival and recovery, or whether an action might

appreciably reduce that likelihood of survival and recovery by reducing reproduction, numbers, or distribution.

4. Any scientifically defensible jeopardy analysis under ESA Section 7 absolutely requires an understanding of a species' population trend and how the population responds to similar actions so that the FWS can analyse a proposed action's impacts on a species. In the case of the 2012 BiOps at issue in this lawsuit, the FWS inexplicably failed to require the United States Forest Service ("USFS") to conduct any population trend or habitat trend monitoring in connection with its forest management activities. In my expert opinion, this failure is clear evidence that the 2012 BiOps will result in jeopardy to the MSO, as that phrase is defined in the relevant ESA regulation. Specifically, the FWS has absolutely no scientific basis – in the absence of monitoring – to conclude that implementation of the Forest Plans which are the subject of the 2012 BiOps will not appreciably reduce the likelihood of survival and recovery of the MSO.

5. Without range-wide data on population trend and habitat status and trend from the USFS, the FWS cannot know the current likelihood of MSO survival and recovery, nor can they know whether an action would appreciably reduce the current likelihood of survival or recovery. As the FWS's Revised Recovery Plan ("RRP") states, "it is critically important to monitor owl populations and habitat to determine whether both are stable or improving. Monitoring population trends provides a real-time assessment of the owls' status, whereas habitat monitoring allows us to predict if there will be adequate habitat to support a viable owl population in the future. As a surrogate for evaluating trends in actual owl numbers, owl occupancy will be monitored at a sample of fixed sites randomly selected throughout the U.S. range of the Mexican spotted owl. … No specific design is proposed for monitoring habitat, although Forest Inventory and Assessment data might have application to the owl. Combining owl occupancy and habitat monitoring provides an opportunity to examine relationships

between habitat features and owl populations to assess whether a review of current management is warranted."

6. I agree with the above statement in the RRP. Long-term monitoring of population and habitat trends is a foundational requirement of the Adaptive Management ("AM") program which the RRP recommends be implemented for the Mexican spotted owl. As I stated above, in the absence of this population and habitat trend data contemplated by the RRP, it will be impossible for both the FWS and the USFS to assess the impacts of forest management activities on the MSO. Furthermore, in the absence of this data it is entirely impossible for the FWS and the USFS to test the assumptions underlying the 2012 BiOps' no-jeopardy conclusion.

7. Reliable estimates of a population's vital rates and habitat are essential for wildlife conservation and management (Williams et al. 2002). The absence of a long-term range-wide population monitoring requirement in the 2012 BiOps – monitoring the RRP acknowledges is crucial to the AM management approach which it recommends for the MSO – is a fatal flaw to implementation of the AM program and creates a situation in which the FWS and the USFS cannot conceivably make any informed decisions as to the impacts of USFS management actions. The FWS's RRP is very clear on this point, and acknowledges repeatedly that it is recommending aggressive forest management actions in Mexican spotted owl habitat on national forests whose impacts are unknown and possibly adverse. For the reason, the FWS's RRP stresses that the impacts of these actions must be assessed through long-term range-wide population monitoring.

8. Likewise, the RRP states that Recovery Habitat Mapping is necessary for the MSO's survival and recovery. This Recovery Habitat Mapping has not been performed, so FWS and USFS cannot know whether USFS actions are indeed resulting in improved quality or quantity of MSO habitat.

9. The RRP repeatedly emphasizes the importance of long-term range-wide population and habitat monitoring. Accordingly, the FWS should have incorporated a

monitoring requirement into the 2012 BiOps to assure that this essential task is performed. The failure to include such a requirement in the 2012 BiOps dooms the AM Program recommended by the RRP by starving it of the required data it needs to successfully inform management for survival and recovery of MSO.

10. The FWS and USFS cannot make any scientifically justified claim that the Forest Plans assessed in the 2012 BiOps are a neutral or beneficial action without monitoring data. Furthermore, the absence of the monitoring data contemplated by the RRP results in a serious risk of irreparable harm to the MSO, as the USFS is proceeding with activities with unknown impacts that even the FWS and the USFS acknowledge may be adverse.

11. As an analogy, I may have an apparently logical hypothesis that drinking 10 energy drinks a day will result in weight loss due to increased metabolism, but unless I step on the scale each week and record my weight, my theory will remain unproven and I won't know if I gained weight from the increased sugar intake in those drinks or lost weight from increased metabolism. Without weighing myself, the decision to continue to drink 10 energy drinks per day in the pursuit of weight loss would not be scientifically supported.

12. Monitoring of owl population and habitat characteristics should take place within a fully implemented AM framework. AM is essentially learning by doing (thoughtfully and with data collection), and adapting subsequent resource management based on what has been learned in an iterative process, thus it is a form of evidence-based ecosystem management (Beverton and Holt 1957, Holling 1978, Walters and Hilborn 1978, Walters 1986, Walters and Holling 1990). AM differs from trial and error by a guiding structure involving (1) the articulation of objectives, (2) identification of management alternatives including 'do nothing', (3) predictions of management consequences, (4) recognition of key uncertainties, and (5) monitoring (National Research Council 2004).

13. AM relies on actual data for interpreting how an ecosystem responds to management interventions (Westgate et al. 2013). Thus, learning through ad hoc trial and error is replaced with learning by careful design and testing (Walters 1997). The feedback between learning and decision making is the defining feature of AM, with learning contributing to management by helping to inform decision making, and management contributing to learning through interventions that investigate resource processes. Management actions in AM should be seen as experimental "treatments" that are implemented according to a design intended to better understand how the resource behaves in response to management actions (Williams 2011).

14. AM is dependent on well-designed monitoring programs, annual iterations of updating the predictive models based on ongoing monitoring information, and adapting decisions based on the new understanding of how the system responds to management (Nichols and Williams 2006, Runge 2011). AM has been successfully implemented in management for endangered species when monitoring and annual adaptive updates to models and decisions are rigorously applied (Armstrong et al. 2007, Drummond et al. 2018).

15. As an example, Armstrong et al. (2007) applied AM to the management of hihi, an endangered forest bird in New Zealand. They developed a population model for projecting outcomes under different management scenarios that manipulated supplementary food and removal of parasitic mites, and updated it on an annual basis during an 8-year series of management manipulations. The AM experiments identified manipulations that effectively increased reproduction and showed that the prescribed management treatments (supplementary feeding and mite control) were necessary for the population to persist. Ongoing monitoring (Holling and Meffe 1996) led to discoveries that produced sustained growth in three other re-introduced hihi populations.

16. The 2012 BiOps challenged in this lawsuit fail to impose any requirement on the USFS to conduct long-term population monitoring of the species – as specifically

contemplated by the RRP as an essential component of the AM plan. In the absence of such monitoring, it is impossible to know the status and trend of the MSO population, it is impossible to know the likelihood of survival or recovery, and it is impossible to know whether an action will appreciably reduce the likelihood of survival and recovery via reduced reproduction, numbers, or distribution. Thus, without monitoring, a scientifically supported jeopardy decision cannot be made.

17. In essence, the 2012 BiOps are entirely based on surmise, speculation, and hope, as they do not impose any requirement upon the USFS to monitor MSO populations to assess the impacts of authorized forest treatments on the MSO population trend. Such management in the absence of validating data acquired through rigorous and robust monitoring is nothing more than "flying blind" and may lead to a precipitous drop in the population of the MSO before the FWS and the USFS become aware that their assumptions regarding the impacts of authorized forest treatments were incorrect. Because a small population has an inherently high probability of extinction (Ludwig 1976, Gilpin and Soule 1986, Simberloff 1988), at that point it time, it may be too late to assure the continued survival and recovery of the MSO.

18. A scientifically defensible analysis of jeopardy indisputably requires information as to the current status and trend in population and habitat. For population, this requires either an estimate of true range-wide population size and trend, or a well-established index number such as the percent occupancy of a large number of regularly monitored PACs over several years. For habitat, this requires a quantification of total suitable habitat over several years.

19. The FWS and the USFS state that they need 15 years "to generate any meaningful data on population trends." The FWS and the USFS also state that any population trend studies must be over 10 years in length to provide reliable connections between an action and the effect on MSOs. These statements are incorrect.

20. A trend can be calculated given only 3 years of data. It is true that trend estimates will become increasingly robust as additional years of data are added, but there is no minimum requirement beyond 3 years for trend estimation. Indeed, even the contractor selected by the FWS and USFS to conduct pilot studies on population monitoring – the Bird Conservancy of the Rockies – determined a population trend for the MSO on the basis of three years of data. The most recent analysis of trend data performed by the Bird Conservancy of the Rockies was based on five years of data, and concluded that there is a downward trend in the MSO's range-wide population trend. There is simply no scientific basis for the statement that trends cannot be determined unless 10 or 15 years of data have been acquired, and the work of the government's own contractor rebuts this unsupported and scientifically inaccurate assertion.

21. The statements in Document 104 (DEFENDANTS' MOTION TO ALTER THE COURT'S DECISION AND TO CLARIFY OR MODIFY THE COURT'S INJUNCTION) that the impacts of the Forest Plan are "net positive" or "beneficial" are entirely without any support in the scientific literature, and are inconsistent with the express findings of the RRP.

22. The RRP for MSO assumes that mechanical thinning is needed to reduce fire risk, but admits that the impacts of these treatments are unknown, and may negatively affect MSO. The fact that the RRP admits that treatments may harm MSO undercuts the statements in Document 104 that the impacts of the Forest Plans "are a net positive for the owl" or "would not appreciably reduce the owl's prospects for recovery." These unsubstantiated opinions are exactly what population and habitat monitoring would provide data to test.

23. The only systematic review and meta-analysis of fuels modification effects on fire behavior found that the only effective treatment to reduce fire severity was thinning AND post-thinning prescribed fire in combination (Kalies and Kent 2016). Given that the USFS is proposing logging treatments across vast areas of national forest

in the name of reducing fire risk, a meaningful and scientifically defensible AM program would require the USFS to collect and analyze relevant data from their lands to determine whether and how these treatments are interacting with wildfire and if they are achieving the goals of altering frequency, size, or severity.

24. In my expert opinion, the RRP proposed a defensible approach to conservation planning for the MSO. Although the monitoring proposal is not as rigorous and robust as it should be, the RRP clearly and expressly acknowledges the core importance of population trend monitoring and habitat monitoring to the survival and recovery of the MSO and acknowledges that assumptions as to appropriate management actions must be tested over time through that monitoring.

25. Unfortunately, the 2012 BiOps issued by the FWS "drop the ball" as they do not impose any range-wide population monitoring requirement on the USFS. As I explained above, the absence of a monitoring requirement in the 2012 BiOps results in a dangerous and reckless management approach which is completely untethered to science and which is associated with a severe risk of impairment to the current MSO population, and to the species' prospects for survival and recovery.

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

DATED this 23rd day of October, 2019.

Derek E. Lee .
Derek E. Lee

stevensugarman@hotmail.com

From: Turner, Rickey (ENRD) <Rickey.Turner@usdoj.gov>
Sent: Wednesday, October 16, 2019 8:43 AM
To: Steven Sugarman
Cc: Smith, Andrew (USANM)
Subject: RE: MSO

Hi Steve – if I understand your question below correctly, we don't have a document showing a commitment of funding between now and 2023. What we do have is a document showing a commitment of funding for the 2020 monitoring season (7th year) and a master agreement with monitoring partners to continue execution of the monitoring protocol for most of the remaining years. We can provide copies of those documents but would first need to have our folks review and remove any proprietary info. To be clear, however, the master agreement doesn't commit funding for years 8, 9, and 10. Pursuant to the applicable funding laws, USFS can only commit funding for monitoring once it receives its yearly appropriations from Congress. Anyway, let me know if you want those documents.

I think its noteworthy to point out that, once the agencies designed a practical/reasonable monitoring protocol, USFS has been committed to doing its part. It's now committed to executing year seven and has now invested more than 2 million dollars toward this effort. Nobody wants to see the owl recovered and delisted more than USFS and FWS.

Thanks,
Rickey

From: Steven Sugarman <StevenSugarman@hotmail.com>
Sent: Tuesday, October 15, 2019 8:23 AM
To: Turner, Rickey (ENRD) <RTurner2@ENRD.USDOJ.GOV>
Subject: MSO

Good morning Rickey –

In your brief, at page 9, you state that the "USFS anticipates completing 10 years of monitoring in 2023." In support of this proposition, you cite to Para. 29 of the Malcolm declaration which refers vaguely to the USFS's "plans" to continue monitoring into the future.

As you know, it is the USFS's decades-long failure to implement range-wide population trend monitoring – and the agency's categorical refusal to commit to a financial commitment to such long-term monitoring while the Section 7(a)(2) consultation on the challenged LRMPs was in process – that led to Judge Collins' ruling against your clients. This is the core of the case right now.

The Malcolm declaration does not reference any actual long-term financial commitment to assure the continuation of long-term population trend monitoring for the MSO. If there is any document that demonstrates that such a commitment has been made, please provide it to us immediately so that we can recalibrate our understanding of the current state of play which is premised on your clients' long-standing refusal to commit to such monitoring in the past.

Thanks –

Steve

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Site Occupancy by Mexican Spotted Owls (*Strix occidentalis lucida*) in the US Forest Service Southwestern Region, 2016

27 October 2016

Bird Conservancy of the Rockies

Connecting People, Birds and Land

Bird Conservancy of the Rockies
14500 Lark Bunting Lane
Brighton, CO 80603
303.659.4348
www.birdconservancy.org
Technical Report SC-MSO-USFS-03

Executive Summary

The Mexican Spotted Owl (MSO) was listed as threatened under the Endangered Species Act in 1993. A revised recovery plan for MSO was completed in 2012, recommending that the population be monitored via estimating the rate of site occupancy. In August 2013, the US Forest Service Southwestern Region contracted with the Bird Conservancy of the Rockies (formerly the Rocky Mountain Bird Observatory) to refine the site occupancy monitoring protocol recommended in the revised recovery plan, to pilot test the protocol in 2014, and continue monitoring in subsequent years on Forest Service lands in Arizona and New Mexico.

As part of this continued monitoring, we surveyed 200 sites in 2016. These sites were a random subset of sites initially surveyed in 2014 and the same sites surveyed in 2015.

We analyzed the data using single species multistate and multistate robust design occupancy modeling frameworks. Using these models we were able to estimate the site occupancy probabilities for the three occupancy states (i.e., unoccupied, occupied by a single owl, or occupied by a pair) in 2014, 2015, and 2016 as well as the overall occupancy of the study area. In addition, we were able to estimate transition probabilities that describe colonization and local extinction events that result in changes in occupancy of sites. In the future, this framework will be useful to understand the climatic and environmental covariates that cause variation in local colonization and extinction probabilities.

The probabilities for general occupancy and occupancy by pairs of Mexican Spotted Owls show a positive trend. Both increased from 2014 to 2015 then held stable from 2015 to 2016. This was reflected in the estimated state transition probabilities between these three years.

These models also account for imperfect detection. Detection probability was influenced by the factors of ordinal data, wind, and noise level. Unsurprisingly, wind and noise had a negative impact on detection probability. Detection improved as the season progressed either from different behavioral responses of the owls during different periods of the breeding season or because of increasing technician ability. We also found that detection probability was higher for pairs than for single owls.

In summary the sampling frame and survey methods used in 2014 provided the framework needed to continue to monitor site occupancy by Mexican Spotted Owls in the Southwestern Region of the US Forest Service in 2015 and 2016. This framework may be expanded or adapted for monitoring Mexican Spotted Owls in additional areas of their range. Additional years of data collection will allow us to expand the analysis to answer pertinent questions about what factors drive the occupancy dynamics which will inform management of this sensitive species.

https://www.santafenewmexican.com/opinion/editorials/firewood-suspension-fuels-the-wrong-battle/article_2e905bb3-b2c1-5ca2-8fad-025bb2511467.html

OUR VIEW

Firewood suspension fuels the wrong battle

The New Mexican Sep 28, 2019

People angry about the U.S. Forest Service suspending permit sales to collect firewood in forests across New Mexico should redirect their outrage.

Don't blame environmentalists for suing the federal government over the endangered Mexican spotted owl, alleging that both the Forest Service and U.S. Fish and Wildlife Services have failed in their obligation to monitor owl populations. In response to the lawsuit, a federal judge has suspended all timber management activities in national forests in New Mexico and parts of Arizona. That's a clear sign that, yes, proper monitoring of the owls did not occur.

The ruling, however, has led the Forest Service to stop individuals from gathering wood for personal use. In Northern New Mexico, where people need wood for heat or gather wood to sell as a means of making a living, this is a ban with immediate and negative impact.

It likely was unnecessary, too, since the lawyers for the government could have asked the judge for more direction about the scope and breadth of his order. Personal-use wood gathering likely would have been exempted, making the worry spreading through communities unnecessary. Our local forest rangers are left to enforce an order they had no part of.

WildEarth Guardians, plaintiff in the lawsuit, quickly filed a motion asking for wood-gathering for personal use to be exempted, saying, "Plaintiff WildEarth Guardians does not believe that personal firewood cutting and gathering on national forest lands is associated with any possibility of irreparable harm to the Mexican spotted owl or its habitat."

The U.S. Forest Service motion in response concurs. Those motions, we trust, mean the federal judge will issue guidelines that make the ban unnecessary. This avoids another loud fight among the logger-traditional community-environmental groups.

Perhaps together, these interest groups can hold federal agencies accountable. To bring back the Mexican spotted owl, it is necessary to keep track of the creatures' movements — something federal agencies were charged with doing.

Back in 1993, the owl was listed as a threatened species, its habitat decimated by logging. By 1996, the Forest Service had developed a plan to watch owl numbers, but U.S. District Judge Raner Collins of Arizona ruled that he has seen no evidence that the monitoring efforts have been put into practice. For anyone worrying about partisanship in managing the forests, both Democratic and Republican administrations fell short. This is a problem of bureaucracy, rather than politics.

The failure to monitor the owls means that we can't know if the species is recovering, or what activities slow its comeback. The agencies are claiming that the Mexican spotted owl is in "no jeopardy" — but they lack data to support that position. That's why monitoring is necessary.

This has repercussions beyond the health of the Mexican spotted owl. Individuals in New Mexico who need wood for heating and cooking, or who sell it as a way to put food on the table, also are threatened

right now. Stopping all timber activity means a loss of jobs and damage to some local economies, and it's an action that might be unnecessary. We don't know, however, without monitoring the population.

The forests should be available for many uses, for many types of creatures — humans and animals alike. By failing to track how human activities affect forests, we lack the information necessary to make informed decisions. For that, don't blame an environmentalist. Demand more from the agencies charged with managing our common resources — and that means advocating for bigger budgets and adequate staffs to do the job right.

In the meantime, the Bureau of Land Management is selling fuelwood permits for personal use, allowing people to collect dead wood — either downed or standing piñon and juniper. No live trees can be cut. This will help ensure people have access to fuel.

Should the suspension last longer than a few days or weeks, it might be necessary to make funds available so that people can afford to buy wood. Costs will go up if the supply is limited, and people who depend on wood for heat don't have money to burn. Adding dollars to fuel-assistance funds is a place where both the federal and state governments might be helpful; the same is true with private charities. No one should be shivering at home because they can't afford fuel.

For now, we wait to see what the judge says — he can end this by exempting personal use from his timber management ban, relieving pressure on local communities. Then, focus on requiring federal agencies to do their jobs. After all, had the agencies been doing the work, the environmentalists would have no case to take to court. Nope, the tree-huggers didn't get us in this mess.