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IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF MONTANA

MISSOULA DIVISION

FOREST SERVICE EMPLOYEES FOR ENVIRONMENTAL ETHICS, Plaintiff, vs. UNITED STATES FOREST SERVICE, an agency of the U.S. Department of Agriculture, Defendant.	CV 08-43-M-DWM PLAINTIFF'S BRIEF IN SUPPORT OF MOTION FOR SUMMARY JUDGMENT

I. Introduction

Plaintiff Forest Service Employees for Environmental Ethics (FSEEE) asserts here that the actions of Defendants United States Forest Service, United States Fish and Wildlife Service, and National Marine Fisheries Service on these agencies' environmental analyses, conclusions, and decisions regarding the aerial application of chemical fire retardant violate the Endangered Species Act (ESA) and the National Environmental Policy Act (NEPA).

II. Endangered Species Act

The "language, history and structure of the [ESA] indicates beyond doubt that Congress intended endangered species to be afforded the highest of priorities." Tennessee Valley Authority v. Hill, 437 U.S. 153, 174 (1978). In contrast to the ESA's "comprehensive protection for endangered and threatened species," no federal law requires that the Forest Service use fire retardant – or even that it put out a single fire. Babbitt v. Sweet Home Chapter, 515 U.S. 687, 699 (1995). Yet, at the heart of the many legal infirmities FSEEE explains herein lies the simple truth that Defendants have acted as if fire fighting takes legal precedence over endangered species conservation. It does not. Firefighting is an entirely discretionary activity of the Forest Service – endangered species conservation is required by law.

1. Standard of Review of the FWS and NMFS Biological Opinions

The Court's review "is narrow 'but searching and careful,' . . . and . . . must ensure that the [agency]'s decisions are based on a consideration of relevant factors and . . . assess whether there has been a clear error of judgment. Gifford Pinchot Task Force v. U.S. Fish and Wildlife Serv., 378 F.3d 1059, 1065 (9th Cir. 2004) (citations omitted). The Biological Opinions (BiOps) must articulate "a rational connection between the facts found and the choice made." Pac. Coast Fed'n of Fishermen's Ass'ns v. NMFS, 265 F.3d 1028, 1034 (9th Cir. 2001) (quotations omitted). The BiOps may be invalid if they fail to use the "best available scientific information" and "to the extent that there is any uncertainty as to what constitutes the best available scientific

information, Congress intended 'to give the benefit of the doubt to the species.'" Ctr. for Biological Diversity v. BLM, 422 F. Supp. 2d 1115, 1127 (N.D. Cal. 2006)(quotations omitted). Although the Court must show deference to the reasonable decisions of an agency, such deference is "warranted only when the agency utilizes, rather than ignores, the analysis of its experts." Ctr. for Biological Diversity v. Lohn, 296 F. Supp. 2d 1223, 1239 (W.D. Wash. 2003).

2. **The FWS BiOp fails to consider the role of critical habitat in the recovery of at least 40 species.**

The ESA requires FWS's biological opinions to explain "how the agency action affects the species or its critical habitat." 16 U.S.C. § 1536(b)(3)(A). By agency rule, FWS must consider "the value of critical habitat for both the survival and recovery of a listed species." 50 C.F.R. § 402.02. The Ninth Circuit has explained that FWS cannot limit its analysis of critical habitat to adverse effects that only jeopardize species survival. FWS must also assess how the harm to critical habitat affects recovery potential for the species; that is, the ability of critical habitat to contribute to the conservation and eventual de-listing of the species. Gifford Pinchot, 378 F.3d at 1069-1070; see also National Wildlife Federation v. NMFS, 524 F.3d 917, 932-33 (9th Cir. 2008). This threshold of adverse modification sets the bar lower than that provided by only a jeopardy analysis. Gifford Pinchot, 378 F.3d at 1069-1070.

Here FWS assessed 387 listed species using a "coarse filter" to evaluate retardant use. FWS WO21-31. In its "coarse filter" analysis, to the extent FWS considered critical habitat at all, it did so considering only the jeopardy prong of the analysis. According to the FWS BiOp, "[b]y applying the "coarse filter" to each of the taxonomic groups or subgroups that we identified based upon the literature, we made a preliminary determination of 'no jeopardy' for 181 species." FWS WO22. Nowhere in its "coarse filter" analysis does FWS assess the role that critical habitat plays in the recovery of protected species. If the "coarse filter" analysis determined that retardant use would not jeopardize the continued survival of the species, the analysis of retardant's effects on critical habitat ended without any assessment of how adverse effects to critical habitat would

affect species recovery. FWS ARWO1119-1155. Thus, FWS never assessed the impact that fire retardant may have on critical habitat's recovery function in regard to at least 40 species with designated critical habitat on national forests. A brief review of several species filtered out by the coarse filter highlights the gaping hole created by FWS's exclusive focus on jeopardy without any consideration of critical habitat's recovery function:

Braunton's Milk-Vetch (*Astragalus brauntonii*): Southern California's Braunton's milk-vetch's "recruitment of seedlings . . . is stimulated by fire events . . ." FWS Recovery Plan for Braunton's milk-vetch at 6. Critical habitat for the Braunton's milk-vetch is designated on private and public lands, including 368 acres on the San Bernardino National Forest. 71 FR 66373, 66388. FWS determined that these acres are "essential to the conservation of the species because this species is extremely limited in distribution, has a very small overall population size, and often occurs in very small disjunct populations, making it particularly vulnerable to extinction." Id. FWS has noted specifically that "firefighting activities" are among those that "may affect critical habitat" and "therefore result in consultation." Id. at 66935. Yet the FWS "coarse filter" analysis concluded "no jeopardy" from retardant use without ever considering the recovery role of this plant's national forest critical habitat.

Thread-Leaved Brodiaea (*Brodiaea filifolia*):Thread-leaved brodiaea, a member of the lily family, occurs intermixed with, or near, vernal pools in San Diego and Riverside Counties, California. The species and its habitat have "been significantly reduced by . . . discing for fire and weed control." 63 FR 54975, 54977. In the course of its listing, FWS noted that this species' survival is threatened by "fire suppression practices," id. at 54982, and, when FWS designated critical habitat in 2005, it added competition from non-native plant species to the threats facing this species. 70 FR 73820, 73821. The conservation of *Brodiaea filifolia* depends upon, among other things, "natural fire" regimes. Id. at 73838. Included among FWS's list of federal activities that may adversely affect critical habitat, is "any activity" that "could alter watershed or soil characteristics that would alter the quality or quantity of surface and subsurface flow of water

. . . (these activities include . . . altering the natural fire regime . . . through using fire suppression). . . ." Id. at 73842. Portions of two of the designated critical habitat units are found on the Angeles and Cleveland National Forests. Id. at 73853 (20 acres of sub-unit 1b on the Angeles National Forest provide pollinator habitat for the plant and 249 acres on the Cleveland National Forest comprise critical habitat sub-unit 5b). At no place in its fire retardant BiOp does FWS consider the adverse effects that fire retardant may have on the recovery function of these two national forest critical habitat units.

Huachuca Water Umbel (*Lilaeopsis schaffneriana var. recurva*): The Huachuca water umbel's designated critical habitat includes 51.7 miles of streams and rivers and their associated riparian plant communities located, in part, on lands administered by the Coronado National Forest in Arizona. 64 FR 37441, 37444. "Maintaining an unnatural fire regime . . . through fire suppression" is among the federal agency actions FWS identified that may adversely modify the water umbel's critical habitat. Id. at 37445. In fact, in a different biological consultation, FWS noted that a ban on fire retardant use in two wildlife refuges would "greatly reduce" potential adverse effects to the Huachuca water umbel.[1] Yet nowhere in the BiOp does FWS consider the impact retardant may have on the water umbel's critical habitat's recovery function.

Slender Orcutt Grass (*Orcuttia tenuis*): This annual grass lives in association with vernal pools in north-central California. These vernal pools are threatened by contamination and "nonnative species invasions." 68 FR 46684, 46716. FWS noted in its 2003 designation of critical habitat that "[f]ire must be appropriately timed, and fire frequency is important" to conserve this threatened grass species. Id. Designated critical habitat for this species is found on the Shasta-Trinity and Lassen National Forests.[2] Research from the Mediterranean shows that vernal pools

[1] See San Bernadino and Leslie Canyon NWF Fire Management BiOp at 27. These wildlife refuges do not have designated critical habitat, although the water umbel is present.

[2] The Forest Service's compilation of critical habitat on national forest lands lists only the Lassen National Forest, but the FWS's critical habitat designation also includes the Cayton Creek sub-unit on the Shasta National Forest, which is administered as a part of the Shasta-Trinity National Forest.

"can be significantly impacted by fire retardants once they fill with fall/winter rains, thereby serving as a sensitive indicator of fire-retardant contamination." FWS R8 2210. The FWS BiOp did not assess fire retardant's effect upon the recovery contribution of this critical habitat to Slender Orcutt Grass because the "coarse filter" dismissed consideration of this species. [3]

Wenatchee Mountains Checkermallow (*Sidalcea oregano var. calva*): According to FWS's recovery plan for this rare plant, "[t]he primary threats to *Sidalcea oregana var. calva* include . . . activities associated with fire suppression." 69 FR 58944, 58945. The Wenatchee National Forest's use of aerial fire retardant is featured by the Forest Service's public affairs office in a May, 2008, press release: "Typically, there are intensive aerial fire suppression activities on these two forests [Wenatchee and Okanogan]. There are likely to be drops of smokejumpers, drops of chemical retardant by several large aircraft (which are led by a smaller two-engine plane), and simultaneous use of several helicopters."[4] Okanogan Press Release. FWS's own recovery plan for this plant explains that "[F]ire suppression has probably resulted in less suitable habitat for this species (R. Harrod, pers. comm. 1996), and as fires threatening private property and public structures are suppressed, the likelihood for further negative impacts through habitat succession remains high." The recovery plan goes on to explain that:

> Some fire suppression activities may also result in direct mortality to substantial numbers of S. oregana var. calva. In the course of constructing a fire safety zone in Camas Meadows during the Rat Creek and Hatchery Creek fires in fall of 1994, a bulldozer inadvertently destroyed several hundred S. oregana var. calva plants (Harrod 1995; T. Thomas, pers. obs. 1995). The plants were bladed and uprooted, the topsoil removed, and the site scraped to mineral soil. During a visit to the disturbed site in May of 1995, researchers observed no sprouts or seedlings of S. oregana var. calva (T. Thomas, pers. obs. 1995).

[3] The same is true for Greene's tuctoria (*Tuctoria greenei*), another vernal pool flowering plant species with critical habitat designated on the Lassen National Forest.

[4] The press release was issued to promote Forest Service firefighting: "The Forest Service welcomes news media coverage of wildfires." *Id*.

Wenatchee Checkermallow Recovery Plan at 15.[5] Nonetheless, the FWS BiOp omits any analysis of fire retardant's effect upon the contribution this endangered plant's designated Wenatchee National Forest critical habitat makes to the plant's recovery prospects.

Modoc Sucker (*Catostomus microps*): This small endangered fish is restricted to portions of two streams, Turner and Rush Creeks, in Modoc County, California, with the Modoc National Forest in charge of half of the species designated critical habitat. 50 FR 24526. Although FWS has warned against applying "pesticides or herbicides toxic to Modoc suckers or their food sources," FWS has never considered the effect that toxic fire retardant might have on this species' critical habitat. Id. at 24528.

Warner Sucker (*Catostomus warnerensis*): Designated critical habitat for the Warner Sucker is located at Honey Creek in Oregon's Fremont-Winema National Forest. Unlike the species discussed above, the AR shows that FWS's Oregon Field Office was aware of the need to assess the effect fire retardant would have on the recovery function of this critical habitat:

> A fire retardant drop into Honey Creek on Forest Service land would also have a significant impact on the designated critical habitat in this basin, but not elsewhere where critical habitat is designated. [**Insert text explaining why this impact is compatible with the recovery function of sucker CH.**]

FWS R1 1014 (emphasis added). However, having acknowledged the need to do the required analysis, no reference to "the recovery function" is to be found in later drafts of the Oregon Field Office's memos (e.g., FWS R1 1038), nor, most importantly, in the FWS's BiOp itself.[6]

Gila Chub (*Gila intermedia*): This endangered fish enjoys critical habitat protection on six national forests in Arizona and New Mexico. In 2005, when FWS designated this habitat as critical, the agency noted that "[F]ire suppression can cause adverse affects [sic] to Gila chub

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[5]Found at http://ecos.fws.gov/docs/recovery_plan/041001a.pdf. Such significant impacts from fire suppression actions connected to retardant use are discussed further in the NEPA section and in the ESA "environmental baseline" section of this brief.

[6] This is just one of a plethora of references in the administrative record to "significant" impacts from fire retardant use – all of which are ignored by the Forest Service in its EA and "Finding of No Significant Impact," as discussed in the NEPA section of this brief.

from vegetation removal and road building, using fish habitats as water sources for fire fighting, and **using fire retardants that are often toxic to aquatic species**. . . . 70 FR 66663, 66684 (emphasis added). Nonetheless, the FWS BiOp does not evaluate the effect fire retardant could have on this critical habitat's recovery function.

Leopard Darter (*Percina pantherina*): In 1978, FWS designated 140 miles of critical habitat for the threatened Leopard Darter, including habitat managed by the Forest Service's Ouachita National Forest in Arkansas. 43 FR 3711, 3715. In 1984, FWS drafted a recovery plan for the fish (revised in 1993) that noted "[e]nvironmental contaminants (e.g., pesticides, fertilizers, acid rain, and untreated wastes) pose a significant threat to leopard darters, particularly as water levels decrease during summer months, concentrating these pollutants." Recovery Plan at 14. The draft recovery plan also noted that "[t]he loss of a single reproductive event would be devastating to individual populations," id. at 22, – such as might occur if fire retardant was dropped into the Darter's stream habitat. Nonetheless, the FWS BiOp does not assess the importance of national forest critical habitat to the recovery of this rare species.

Razorback Sucker (*Xyrauchen texanus*): The Forest Service manages 236 miles of Razorback Sucker critical habitat in Arizona. 59 FR 13374, 13384. In 1998, the Forest Service proposed to amend its Forest Plans for the three national forests with Razorback Sucker critical habitat. The proposed amendment, intended to protect the Razorback Sucker and its critical habitat, stated: "Only use chemical fire retardant adjacent to species habitat when no other fire suppression means is available to protect the habitat." 63 FR 29692, 29693. The proposed amendment resulted from recommendations made by FWS to the Forest Service during inter-agency consultation. Id. Nonetheless, FWS's jeopardy-based "coarse filter" analysis eliminated the Razorback Sucker from further analysis, precluding any FWS assessment of retardant's effect upon the importance of critical habitat to the species' recovery.

In sum, the recovery function of critical habitat is distinct from its role in protecting against jeopardy. By focusing exclusively on jeopardy in its "coarse filter" analysis, FWS

eliminated from its Biological Opinion every species with national forest critical habitat that the "coarse filter" concluded would not be jeopardized by fire retardant use, in violation of ESA.

3. **The FWS BiOp fails to address impacts associated with the entire agency action in its "coarse filter" conclusion that fire retardant would not jeopardize 181 species.**

The ESA requires the regulatory agency to assess the impacts associated with the entire agency action. Pac. Coast Fedn. of Fishermen's Ass'ns v. Gutierrez, 2008 WL 2851568 at *14 (E.D. Cal. Apr. 16, 2008); see also Conner v. Burford, 848 F.2d 1441, 1453-54 (agency failure to analyze all stages of oil and gas leasing violated ESA). ESA regulations provide that agency action effects include "direct and indirect effects" and "effects of other activities that are interrelated or interdependent with that action." 50 C.F.R. § 402.02. These effects are then added to the "environmental baseline," which is defined as "the past and present impacts of all Federal, State or private actions and other human activities in the action area" and "the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation." Id.; see also, NWF v. NMFS, 524 F.3d at 924.

FWS must consider the effects of fire retardant use "within the context of other existing human activities that impact the listed species." NWF v. NMFS, 524 F.3d at 930 (quoting ALCOA v. Administrator, Bonneville Power Admin., 175 F.3d 1156, 1162 n.6 (9th Cir. 1999)). The environmental baseline serves to ensure that FWS evaluate fire retardant's use "in the present and future human and natural contexts" – not in a vacuum divorced from the real world. Pac. Coast Fed'n of Fishermen's Ass'ns v. US BOR, 426 F.3d 1082, 1093 (9th Cir. 2005).

Regardless of whatever else is on-going in the real world these species inhabit, when the Forest Service dumps fire retardant near or on a threatened or endangered species or its critical habitat, there can be no dispute that the Forest Service is fighting a fire. FWS's "coarse filter" analysis, however, did not consider the impacts that fire suppression has on species or their critical habitat when it concluded "no jeopardy" for 181 species. In fact, the FWS BiOp includes no discussion of any environmental baseline whatsoever. There is no discussion "of other

existing human activities that impact the listed species" in the "coarse filter" analysis. FWS WO21-22. The "coarse filter" analysis claims to consider four factors: 1) the range and distribution of the species; 2) the likelihood of exposure to fire retardant; 3) whether fire retardant exposure would take individuals of the species; and, 4) would take rise to the level of jeopardy to the species. Id. Missing from this analysis is any consideration of impacts to the species or its critical habitat from other past or present human activities in addition to retardant use. The "coarse filter" analysis incorporates no environmental baseline effects on any of the species the filter eliminated from review in the BiOp.

There is indisputably one federal action that is ubiquitous whenever fire retardant is used and that often has profound and significant past and present impacts: fire suppression. One hundred years of Forest Service fire suppression is the elephant in the consultation room that the FWS "coarse filter" ignores completely, as illustrated by several examples from the list of 181 species eliminated from analysis by the "coarse filter":

Sacramento Prickly Poppy (*Argemone pleiacantha*): This endangered plant, which was eliminated from further consideration by FWS's "coarse filter," is restricted to 10 populations in 7 canyon systems in south-central New Mexico, with over 80% of its habitat managed by the Lincoln National Forest. 54 FR 35302-04; Sacramento Prickly Poppy Recovery Plan at 1-2. Sacramento Prickly Poppy "may require open areas free of other, competing vegetation for successful establishment," notes FWS's Recovery Plan at 6-7. The Recovery Plan explains that a former fire in one of the poppy's canyons "created habitat favorable for the establishment of Sacramento prickly poppy." Id. FWS's "coarse filter," by omitting any consideration of the environmental baseline, failed to account for the effect past and present fire suppression likely has on the conservation of this endangered plant.

Encinitas Baccharis (*Baccharis vanessae*): Fire plays a critical ecological role in the conservation of this southwestern California plant. When listed as threatened in 1996, FWS noted that "the disruption in natural fire cycles potentially threatens the remaining southern

maritime chaparral" where the Encinitas Baccharis grows, and "fire control" is a listed threat facing this species. 61 FR 52370, 52371, 52377. In its listing decision, FWS explains that "[c]onflicts between fire management and preservation arise when insufficient buffers exist between sensitive biological resources and residential dwellings," and the taxon is "potentially threatened by the interruption of the natural fire cycle." Id. at 52381. By failing to consider this, or any other component of the environmental baseline, FWS's "coarse filter" concluded "no jeopardy" to the Encinitas Baccharis from retardant use; notwithstanding the fact that fire suppression is a part of the environmental baseline associated with fire retardant use. [7]

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[7] In 1995, FWS published "Effects of Fire on Threatened and Endangered Plants: An Annotated Bibliography." At Table 3, this report provides these summary descriptions of how fire suppression affects many of the threatened or endangered plant species dismissed by FWS's "coarse filter" analysis because that analysis includes no environmental baseline:
Alabama Leatherflower (*Clematis socialis*) – "Not damaged by prescribed burn" "May require fire to maintain suitable habitat"
Pigeons Wings (*Clitoria fragrans*) – "Occurs in fire adapted community"
Apalachicola Rosemary (*Conradina glabra*) – "Fire may maintain suitable habitat" "Killed by fire but recovers from seed" "Fire may increase reproduction" "May require fire to maintain suitable habitat"
Kern Mallow (*Eremalche kernensis*) – "Threatened by alteration of natural fire regime"
Harper's Beauty (*Harperocallis flava*) – "Occurs in fire adapted community"
Eggert's Sunflower (*Helianthus eggertii*) – "Occurs in habitat historically maintained by fire"
Schweinitz's Sunflower (*Helianthus schweinitzii*) – "Fire suppression may be detrimental"
Mountain golden heather (*Hudsonia montana*) – "Fire may decrease competing plant species"
Peter's Mountain Mallow (*Iliamna corei*) – "Germination occurs if seed coats are broken by fire"
San Joaquin Woolly-Threads (*Lembertia congdonii*) – "Threatened by alternation of natural fire regime"
White Bladderpod (*Lesquerella pallida*) – "Fire may maintain suitable habitat"
Heller's blazingstar (*Liatris helleri*) – "Species in this genus are generally recognized as fire dependent"
Rough-Leaf Loosestrife (*Lysimachia asperulaefolia*) – "Requires fire; fire may stimulate flowering" "May require periodic fire to maintain suitable habitat"
White Birds-in-a-Nest (*Macbridea alba*) – "Requires periodic winter fires to maintain suitable habitat"
Mohr's Barbara's Buttons (*Marshallia mohrii*) – "May require fire or other disturbance to maintain suitable habitat"
Canby's Dropwort (*Oxypolis canbyi*) – "May require fire to maintain open habitat" "Occurs in fire adapted community" "Number of individuals increased following a hot wildfire. Same population has been declining since"

In sum, by its failure to evaluate effects from the action most obviously associated with fire retardant use – fire suppression – FWS's "coarse filter" analysis eliminated from its evaluation over two dozen threatened or endangered plant species that, according to its own scientific reports, FWS knows may be adversely affected by fire suppression.

4. **The NMFS and FWS BiOps Fail to Provide an Incidental Take Statement**

The ESA's implementing regulations require that an incidental take statement (ITS) accompany a BiOp. 50 C.F.R. § 402.14(i)(1)(i-iv); Forest Serv. Emples. for Envtl. Ethics v. United States Forest Serv., 397 F. Supp. 2d 1241, 1255 (D. Mont. 2005) ("FWS must provide the agency with an Incidental Take Statement specifying the 'impact of such incidental taking on the species,' any 'reasonable and prudent measures that the [FWS] considers necessary or appropriate to minimize such impact,' and setting forth 'the terms and conditions … that must be complied with by the Federal agency … to implement [those measures]'"); see also Bennett v. Spear, 520 U.S. 154, 169-170 (1997). Neither the FWS nor NMFS BiOp includes an incidental

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Penland Beardtongue (*Penstemon haydenii*) – "Fire suppression has negatively affected habitat suitability"
Godfrey's Butterwort (*Penguicula ionantha*) – "Species in this genus are generally recognized as fire dependent" "May require frequent, low intensity fires to maintain suitable habitat"
Green Pitcher Plant (*Sarracenia oreophila*) – "May require fire to maintain suitable habitat" "Flowering and population size increased following fire"
Alabama Canebrake Pitcher Plant (*Sarracenia rubra spp. alabamensis*) – "May require fire to maintain open habitat" "Fire suppression may threaten existing populations"
Mountain Sweet Pitcher Plant (*Sarracenia rubra ssp. jonesii*) – "Species in this genus are generally recognized as fire dependent" "Fire important for habitat maintenance"
American Chaffseed (Schwalbea americana) – "Flowering occurs following fire, regardless of seasons" "May require frequent, low intensity fires to maintain suitable habitat")
Florida Skullcap (Scutellaria floridana) – "Requires periodic winter fires to maintain suitable habitat"
Nelson's Checkermallow (Sidalcea nelsoniana) – "May require fire to maintain suitable habitat"
White Irisette (Sisyrinchium dichotomum) – "Fire or other disturbance may be required to maintain suitable habitat"
Navasota Ladies'-Tresses (Spiranthes parksii) – "Fire or other disturbance may be required to maintain suitable habitat"
Running Buffalo Clover (Trifolium stoloniferum) – "Fire suppression may be detrimental"

take statement that specifies the impact of incidental taking on each adversely affected species, reasonable and prudent measures to minimize the impact, nor any terms and conditions to implement the measures. FWS WO120; NMFS AR43 at 142-43.

Instead of doing what the law requires, FWS and NMFS assert that post hoc emergency consultation will satisfy its incidental take statement obligations. But this Court already rejected this argument in the prior fire retardant case:

> There is nothing in the case law or statutes to suggest that the ESA permits certain agency actions to be exclusively evaluated under the lesser strictures of the emergency consultation procedures of 50 C.F.R. § 402.05. The requirement in emergency situations that formal consultation be initiated as soon as practicable after the emergency is under control demonstrates that under the ESA framework, emergency consultation is intended to be the exception, not the rule. The emergency exception is meant for unexpected exigencies. The use of fire retardant by the USFS is not unexpected but guaranteed; the only question is when and where it will be used. . . . If the BO concludes that the agency action will not result in jeopardy or adverse habitat modification, or if it offers reasonable and prudent alternatives to avoid that consequence, **the FWS must provide the agency with an Incidental Take Statement specifying the "impact of such incidental taking on the species," any "reasonable and prudent measures that the [FWS] considers necessary or appropriate to minimize such impact," and setting forth "the terms and conditions … that must be complied with by the Federal agency … to implement [those measures].**" [citations omitted and emphasis added].

FSEEE, 397 F. Supp. 2d at 1255. FWS and NMFS have simply chosen to ignore this Court's directive. FWS and NMFS have also failed to provide any meaningful trigger that ensures consultation is re-initiated if too much take of a protected species occurs. Or. Natural Res. Council v. Allen, 476 F.3d 1031, 1039 (9th Cir. 2007) (ITS must "set a clear standard for determining when the authorized level of take had been exceeded."). The BiOps provide no standard whatsoever for determining the amount of permissible take on a species-by-species basis. Finally, the BiOps fail to provide any reasonable and prudent measures to minimize the impact of the incidental takings or terms and conditions to implement those measures.

By failing to provide for any incidental take associated with fire retardant use, FWS and NMFS have either threatened the prospect of criminal liability upon individual firefighters or given a blank check to take by way of post hoc emergency consultation. See Bennett v. Spear,

520 U.S. at 170 (any person who knowingly takes an endangered or threatened species is subject to substantial civil and criminal penalties, including imprisonment); NMFS AR43 at 143 ("This Opinion does not exempt incidental take of listed fish or wildlife species from the prohibitions of section 9 of the ESA for the USFS' use of aerially applied long-term fire retardants."). As it is unlikely that the federal government will prosecute an on-the-job firefighter for taking a listed species, one must conclude that the allowance for doing so is both un-quantified and unlimited. This is a result the ESA does not countenance.

5. **The FWS's Reasonable and Prudent Alternative is Unsupported.**

The FWS BiOp determined that 45 species would be jeopardized and/or suffer from adverse modification of their designated critical habitat as a result of Forest Service use of fire retardant. The bases its finding include: 1) fertilizer effects that increase invasive species[8]; 2) loss of substantial fraction of population and/or habitat (Mariposa Pussy-Paws); 3) harm to soil chemistry and increase in invasive species[9]; 4) harm to soil chemistry and plant's physiology (Tripled-ribbed Milk-vetch); 5) increase in invasive species that can alter fire regimes and lead to type conversion[10]; 6) toxicity (James spinymussel); 7) toxicy, sub-lethal physiological harm and loss of macroinvertebrate prey[11]; 8) increase in invasive species and harmful physiological effects (Laguna Mountains Skipper); and, 9) physiological harm, increase in non-native species and direct lethality (Quino Checkerspot Butterfly). All of these threats result from fire retardant being dumped on, in, or upstream of the species or its critical habitat. Thus the question before the Court is: Does the RPA assure that retardant will not be dropped on, in, or upstream of a jeopardized species or its critical habitat?

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[8] Holy Ghost Ipomopsis, Camatta Canyon Amole, Slender-horned Spineflower, Slender-Petaled Mustard, California Dandelion, Pedate Checkermallow, Munz's Onion, Southern Mountain Buckwheat, Ash-Grey Indian Paintbrush, Bear Valley Sandwort

[9] Cushenbury Oxytheca, Cushenbury Milk-Vetch, Cushenbury Buckwheat, San Bernardino Mountains Bladderpod, San Bernardino Bluegrass

[10] Vail Lake Ceanothus, Nevin's Barberry

[11] Fine-lined Pocketbook, Alabama moccasinshell, Coosa moccasinshell, Southern pigtoe, Southern clubshell, Triangular kidneyshell

Simply put, the answer is "no," because the FWS's RPA "in no way limits the actions that an incident commander deems necessary to undertake during a fire emergency response." FWS WO120. In other words, either pursuant to the Forest Service retardant guidelines' allowances for drops into waterways,[12] or as a result of accidental spill, fire retardant can be dropped on, in, or upstream of a jeopardized species or its critical habitat. None of the FWS RPA provisions ensures such drops will not occur; thus the RPA cannot prevent jeopardy or adverse modification of critical habitat.

FWS's RPA is also fundamentally flawed because it only promises promulgation of unspecified "species-specific measures" at some future and unknown date. FWS WO119 ("The USFS shall develop Service-approved species-specific measures prior to the fire season . . ."). Without knowing the particulars of these unspecified measures, FWS could not have rationally determined that the RPA would not jeopardize any species. And, in fact, there is no analysis to FWS's "finding" that the RPA will not jeopardize or adversely modify critical habitat – it is simply conclusory. In its entirety, FWS's "analysis" is: "If the USFS incorporates this reasonable and prudent alternative into their final decision, the alternative action would avoid the likelihood of jeopardizing the continued existence of listed species or destroying or adversely modifying critical habitat." FWS WO119. It is impossible from this statement to discern FWS's path to its conclusion that the agency action modified by the RPA's unspecified measures will not jeopardize or adversely modify. See PCFFA, 426 F.3d at 1091. Compare NWF v. NMFS, 524 F.3d at 925, where NMFS "explored reasonable and prudent alternatives to the proposed operation and *analyzed whether these alternatives, in conjunction with the environmental baseline and cumulative effects*, would avoid jeopardizing the species" (emphasis added). FWS did no such analysis here, much less one including the environmental baseline and cumulative effects, and has thus failed to comply with ESA.

[12] The guidelines allow for drops in waterways "when alternative line construction tactics are not available," or when "life or property is threatened." FWS WO10262.

VI. National Environmental Policy Act

The Forest Service's Environmental Assessment (EA), FS 327, and Finding of No Significant Impact (FONSI), FS 335, are reviewed under the APA's arbitrary and capricious standard to determine whether the agency took a "hard look" at the impacts of its action by providing "a reasonably thorough discussion of the significant aspects of the probable environmental consequences." Ctr. for Biological Diversity v. NHTSA., 538 F.3d 1172,1194 (9th Cir. 2008)(cites omitted). This Court must determine whether the EA "foster[s] both informed decision-making and informed public participation." Native Ecosystems Council v. U.S. Forest Serv., 418 F.3d 953, 960 (9th Cir. 2005) (quotations omitted).

In determining the scope of an environmental review, NEPA's implementing regulations require the Forest Service consider three kinds of impacts (direct, indirect, and cumulative) and three kinds of actions (connected, cumulative and similar). 40 CFR 1508.25; Great Basin Mine Watch v. Hankins, 456 F.3d 955, 968 (9th Cir. 2006).[13] The EA here omits from its review significant direct and indirect impacts to fish, water quality, and threatened and endangered plant species – impacts that are apparent from even a cursory review of the AR. The EA also ignores the environmental consequences of connected fire suppression activities necessary to meet the firefighting "purpose and need" for which the Forest Service proposes to use aerial fire retardant. Because the EA is inadequate, and because substantial questions remain indicating that this action may result in significant environmental impacts, the Forest Service must prepare an EIS. See Save the Yaak Committee v. Block,840 F.2d 714, 717-21 (9th Cir. 1988)

1. Significant Impacts to Fish

The AR is replete with evidence that fire retardant dropped into a stream can have a significant adverse impact to the stream's inhabitants and water quality. See, e.g., FWS WO32 ("an accidental spill in a waterway would lead to substantial mortality"); FWS WO36 ("Entry of

[13] Both EISs and EAs must consider these impacts and actions. Save the Yaak Committee v. Block, 840 F.2d at 720.

ammonia into waterways containing these species could have a severe effect"); FWS WO107 ("The hardest to measure and potentially most significant effects of fire retardant could be long-term, sub-lethal impacts to fish"); FWS WO89 ("The fire retardants are likely to kill macro invertebrate food items in the above areas, resulting in significant habitat degradation that affects foraging and breeding"); NMFS AR43 at 126 ("Their research concluded that fire retardant misapplications have biologically significant effects to fish communities"); NMFS AR43 at 131 ("The hardest to measure, and potentially most significant effects of fire retardant misapplication could be sub-lethal impacts to fish and the duration of the impacts to critical habitat").

The Forest Service's Biological Assessment, prepared to inform the EA, found that "[a]ccidental introduction of these chemicals into an aquatic system during a salmonid swim-up period could cause ***significant mortality and be catastrophic*** to a local population, especially if that population were threatened or endangered." FS 222-9 (emphasis added). The EA acknowledges none of this record of significant impacts. Instead, the EA asserts that "based on the low frequency of 14 accidents over 8 years and approximately 128,000 aerial drops, the likelihood of retardant entering a waterway is small" thus, the EA does not assess any of the environmental consequences to fish or water quality from a retardant drop in a waterway. FS 327-23.[14] The EA's logic is simply wrong. It is a lead-pipe certainty that retardant will enter waterways – it already has at least 14 times.[15] Although the chance that any single retardant drop

[14] Paradoxically, the EA also concludes that no matter how "small" the chance the retardant will end up in stream, the "possibility" that it will do so is sufficient to conclude its use is "likely to adversely affect" threatened or endangered species, thus triggering ESA §7 consultation. In fact, that "possibility" proved to be sufficiently significant that FWS and NMFS concluded retardant use jeopardizes the continued survival of dozens of protected species. Jeopardy cannot be reconciled with a "Finding of No Significant Impact." It is axiomatic that a federal action that is likely to adversely affect, and even jeopardize, a threatened or endangered species (much less dozens of such species) threatens, per se, a significant environmental impact under NEPA.

[15] In addition to the reported retardant drops in streams, "NMFS believes that a number of retardant drops into waterbodies may never be observed" and an additional number of "unreported" drops in streams because no fish kill was observed due, for example, to a lack of monitoring immediately after the drop. NMFS AR43 at 117.

will hit a stream may be small, with enough drops – e.g., 128,000 a year – the chance that some stream is hit by retardant is virtually 100%. [16]

This is not a case involving highly uncertain outcomes or unique or unknown risks, cf. NRDC v. DOE, 2007 WL 1302498 at *17-22 (N.D.Cal. May 2, 2007). This case is an old-fashioned, vanilla-flavored example of an agency sweeping under the rug obviously significant environmental impacts – "substantial" mortality of fish, "significant habitat degradation" of streams, and "catastrophic" harm to threatened or endangered species. Everyone knows what happens when fire retardant is dumped in streams. Everyone knows it has been dumped in streams – repeatedly. Everyone knows the Forest Service retardant guidelines allow it to be dumped in streams (to protect lives or property, inter alia). Everyone knows accidents also happen. The EA, however, refuses to acknowledge any of these truths and, thus, ignores the significant environmental consequences, documented repeatedly in the AR, to fish and streams. Therefore this Court must find the EA in violation of law.

2. **Significant Impacts to Threatened or Endangered Plants**

The AR is replete with evidence of significant direct impacts to threatened and endangered plants from fire retardant. See FWS WO44 ("The proposed action would lead to a substantial reduction in number of *C. pulchellum*, a substantial reduction in range by removing this site as suitable habitat for *C. pulchellum*, and it would preclude the recovery of *C. pulchellum*"); FWS WO45 ("The loss or significant degradation of even one occurrence due to a non-native species invasion [promoted by fire retardant use] would represent an appreciable reduction in the distribution of this species"); FWS WO46 ("a fire retardant drop that promotes non-native species could result in significant effects" to three mountain meadow listed plant

[16] Mathematically speaking, if fire fighting continues in the future for the same time and in the same way as in the past, the probability of no dump in a stream is *e* to the minus 14 = 0.0000008. Or, alternatively phrased, the probability of at least one dump in a stream is 0.9999992 = 99.9999%. NMFS calculates the frequency of drops in streams as "once every 4,701 drops using the 2006 level of application." NMFS AR43 at 118. Drops in streams are a certainty.

species); FWS WO47 ("a fire retardant drop that promotes non-native species could result in significant effects" to Munz's Onion); FWS WO48 ("Type conversion and exotic species are threats to these species; thus, a fire retardant drop that promotes non-native species could result in significant effects" to three listed plant species); FWS WO49 ("thus, a fire retardant drop that promotes non-native species could result in significant effects" to four listed plant species). In addition, FWS's BiOp found that retardant use jeopardizes 20 plant species and adversely modifies critical habitat for two listed plants. Against this record of significant harm to threatened and endangered plants the EA offers nothing at all; the EA simply never mentions threatened or endangered plants. [7]1

3. **Significant Indirect Impacts**

In addition to direct effects, the EA must also evaluate indirect effects "caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable." Edwardsen v. US DOI, 268 F.3d 781, 785 (9th Cir. 2001)(citing 40 C.F.R. § 1508.8(b)) . According to the EA, the "no action" alternative has the indirect effect of "an overall increase in the size of wildfires that would otherwise receive retardant." FS 327-24. Thus the EA concludes that no retardant use means, among other things, "alteration of soil structure and reduction in productivity, loss of top soil, bank erosion of alluvial streams, and a reduction of habitat for aquatic life in streams" and, "in extreme cases, indirect effects could include (1) flooding of valley bottoms, (2) transport of excessive sediment loads to downstream impoundments, diversions, and water-treatment facilities, and (3) exceeded water quality thresholds for beneficial uses on designated streams." FS 327-21.

[17] The ESA three-step consultation process, had the Forest Service followed it, would have filled this missing gap. NRDC v. Gutierrez, 2008 WL 360852 at *26 (N.D. Cal. Feb. 6, 2008). Step one requires the Forest Service obtain a list of threatened and endangered species from FWS and NMFS (although the FS did not do so, a web link to such a list appears in the AR -- http://www.fs.fed.us/biology/resources/pubs/tes/nfs_tep_species_29May07.pdf). Step two requires the Forest Service prepare a "biological assessment" to determine whether fire retardant might affect a protected species. Although the Forest Service completed a limited BA for some species , FS 222, it did not consider any threatened or endangered plants in the BA.

But when it comes to the indirect effects of using retardant, i.e., the environmental consequences of lessening, suppressing, or eliminating fire from national forest ecosystems, the EA is silent. The AR, on the other hand, is more revealing. The "[l]ong-term benefits" of fire include "regeneration of several important conifer species and creation of downed logs and snags and "vegetative diversity" that "enhance[s] habitat for most wildlife." FS 194-7.[18] In fact, "[i]n the absence of fire, advancing [forest] succession has profound effects upon the capability of habitat to support wildlife." FS 194-8 (includes discussion of fire's importance to major wildlife types). This Forest Service-commissioned analysis goes on to explain that "[f]ire suppression has altered the natural fire regimes in many forests, especially in the West [and] [c]hanges in fire frequency or intensity caused by man can have very important impacts on the species composition of an area." FS 194-9. Thus, the report concludes: "Data accumulated over the past few decades have shown that continual fire suppression may have more adverse effects to ecosystems than wildfires." FS 194-23. The EA, however, is silent regarding these indisputably significant indirect effects of using retardant to put out fires.

4. **Significant Impacts of Cumulative and Connected Actions**

The CEQ regulations require an agency to consider "cumulative actions" and "connected actions" in an environmental review. "A cumulative impact on the environment 'results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions;" Blue Mountains Biodiversity Project v. Blackwood, 161 F.3d 1208, 1214-16 (9th Cir. 1998)(quoting 40 CFR §1508.7). Connected actions are "interdependent parts of a larger action and depend on the larger action for their justification." 40 C.F.R. § 1508.25(a)(1). The Ninth Circuit applies an "independent utility test" to determine whether actions are connected. Earth Island Inst. v. United States Forest Serv., 351 F.3d 1291, 1305 (9th Cir. Cal. 2003). The Forest Service uses fire retardant to fight fires; retardant is not used for any other purpose; it has

[18] The Forest Service's Fire and Aviation Management branch, who produced the retardant EA, commissioned and paid for this study entitled "Risk Comparison of Uncontrolled Wildfires and the Use of Fire Suppression Chemicals" by Labatt-Anderson.

no independent utility apart from fighting fires. The EA's "Purpose and Need" makes this point clear: "The purpose and need for the Proposed Action is to allow the Forest Service to maintain the ability to rapidly reduce wildfire intensities and rates of spread ***until ground forces can safely take suppression action*** and throughout the duration of an incident without harming fish and aquatic habitat." FS 327-8 (emphasis added).

The EA assesses the environmental effects of fire retardant divorced from all other firefighting actions. Thus the EA ignores the "larger action" and its "interdependent parts," such as ground forces building fireline. In a peer-reviewed scientific article in the AR (but not cited in the EA), whose title could not be more on point ("Impacts of Fire Suppression Activities on Natural Communities"), one does not have to read further than the abstract's first sentence to see that the EA ignores significant impacts from connected firefighting actions: "The ecological impacts of wildland fire-suppression activities ***can be significant*** and may surpass the impacts of the fire itself." FS 314-1 (emphasis added). These effects include soil erosion from fireline construction, FS 314-3, spread of invasive plant species, FS 314-4, impacts to protected species from close approach of aircraft, FS 314-5, and water pollution due to erosion from constructed firelines. FS 314-6. The EA considers none of these other firefighting actions that, taken together with fire retardant, are an interdependent part of firefighting, in violation of NEPA.

In sum, the Forest Service can conclude that dumping of tens of millions of gallons of toxic fire retardant on our national forests has no significant environmental impact only by ignoring the AR. This calculated ignorance violates NEPA's requirements to consider impacts. NMFS was prescient when it predicted that the Forest Service "is not likely to (a) evaluate the direct, indirect effects, and cumulative impacts of all the fire retardants they authorize for use, (b) evaluate the direct, indirect, or cumulative impacts of their emergency fire suppression actions, and (c) the nature of those effects in the basin in which they would occur." NMFS AR43 at 138.

IV. Conclusion

For the foregoing reasons, this Court Court must find violations of ESA and NEPA here.

DATED this 17th day of October, 2008

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