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14  
15 IN THE UNITED STATES DISTRICT COURT  
16 FOR THE DISTRICT OF MONTANA  
17 MISSOULA DIVISION

18 ALLIANCE FOR THE WILD  
19 ROCKIES,

CV 08-168-M-DWM-JCL

20 Plaintiffs,

21 vs.

22 PLAINTIFF’S BRIEF IN SUPPORT  
23 OF MOTION FOR  
24 SUMMARY JUDGMENT

25 TOM TIDWELL, Regional Forester of  
26 Region One of the United States Forest  
27 Service, UNITED STATES FOREST  
28 SERVICE, an agency of the United  
States Department of Agriculture, and  
UNITED STATES FISH & WILDLIFE  
SERVICE, an agency of the United  
States Department of Interior.

Defendants.

1 **I. INTRODUCTION**

2 This is a civil action for judicial review under the Administrative Procedure  
3 Act and the Endangered Species Act of the U.S. Forest Service's (Forest Service)  
4 April 20, 2007 Record of Decision (ROD) approving the Invasive Plant  
5 Management Project for the Kootenai National Forest (Weeds Plan), and of the  
6 U.S. Fish & Wildlife Service's (Wildlife Service) April 13, 2007 letter of  
7 concurrence for the Weeds Plan. Plaintiff Alliance for the Wild Rockies  
8 (Alliance) attests that both the final decision and letter of concurrence approving  
9 the Weeds Plan are arbitrary and capricious, an abuse of discretion, and/or  
10 otherwise not in accordance with law.  
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15 The ROD authorizes invasive plant/noxious weed treatment on 94,000 acres  
16 over the next 15 years. Specifically, the ROD authorizes aerial herbicide  
17 application by helicopter on 30 - 35,000 acres, ground-based herbicide application  
18 on 45 - 55,000 acres, hand-pulling on five acres, use of biological controls (i.e.  
19 weed-eating insects) on 375 acres, and seeding on 1 - 3,000 acres. [AR 2:057 at](#)  
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22 [14-15.<sup>1</sup>](#)  
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26 <sup>1</sup>Citations to the Administrative Record (AR) are as follows: AR [Volume  
27 Number]:[Document Number] at [PDF-assigned Page Number(s)].

1 Alliance now respectfully asks this Court to find that Defendants' approval  
2 of the Weeds Plan as written is a violation of the National Environmental Policy  
3 Act (NEPA), 42 U.S.C. 4331 *et seq.*, the National Forest Management Act  
4 (NFMA), 16 U.S.C. § 1600 *et seq.*, the Endangered Species Act (ESA), 16 U.S.C.  
5 § 1531 *et seq.*, and the Administrative Procedure Act (APA), 5 U.S.C. §§ 701 *et*  
6 *seq.* Alliance respectfully requests that this Court enjoin the implementation of  
7 the Weeds Plan, and remand to the Forest Service. Alliance further requests that  
8 this Court require the Wildlife Service to complete a formal Biological Opinion on  
9 the impact of any future version of the Weeds Plan.  
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## 13 **II. STATEMENT OF FACTS**

14  
15 General factual background information is set forth below and additional  
16 facts specific to individual claims are set forth as applicable throughout Section  
17

18 III.

### 19 **A. Weeds Plan Project Area – Kootenai National Forest**

20  
21 The Kootenai National Forest (Forest) lies in the northern Rocky Mountains  
22 in the northwest corner of Montana, bordered by northern Idaho to the west and  
23 British Columbia to the north. The Forest includes the Cabinet Mountains, Purcell  
24 Mountains, Whitefish Range, and Salish Mountains, as well as sections of the  
25 Kootenai and Clark Fork Rivers. Several small towns are located within the  
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1 Forest boundaries, including Troy, Libby, Eureka, Noxon, and Trout Creek. [AR](#)  
2 [25:001 at 299](#), [21 \(map\)](#). The Forest landscape ranges from rugged alpine,  
3  
4 glaciated peaks, to dense coniferous forests, to dry rock canyons. [AR 25:001 at](#)  
5 [302](#). The Forest provides habitat for over 280 fish and wildlife species, [AR](#)  
6 [25:001 at 368](#), including ESA-listed grizzly bear populations, wolves, elk, moose,  
7  
8 mountain lions, mountain goats, bighorn sheep, bald eagles, the ESA-listed bull  
9  
10 trout, and westslope cutthroat trout. [AR 25:001 at 299](#).

## 11 **B. Ecological Impact of Invasive Plant Infestations**

12 Invasive plant species, also called noxious weeds, are one of the greatest  
13  
14 modern threats to biodiversity on earth – greater than both pollution and over-  
15  
16 exploitation of resources. [AR 2:015 at 21](#). Noxious weeds cause harm because  
17  
18 they displace native plants, resulting in a loss of diversity and a change in the  
19  
20 structure of a plant community. *See e.g.* [AR 3:130 at 1](#). For example, noxious  
21  
22 weeds such as leafy spurge “forms such dense stands that [it excludes nearly] all  
23  
24 other nonwoody vegetation” and the root sap further inhibits growth of other  
25  
26 plants in the surrounding soil. [AR 7:045 at 2](#).

27 By removing native vegetative cover, invasive plants like knapweed may  
28  
29 increase sediment yield and surface runoff in an ecosystem. [AR 3:070 at 1](#).

Moreover, weed colonization can alter fire behavior by increasing flammability:

1 for example, cheatgrass, a widespread noxious weed on the Forest, cures early and  
2 leads to more frequent burning. See [AR 3:149 at 31](#). Weed colonization can also  
3 deplete soil nutrients and change the physical structure of soils. [AR 3:116 at 3](#).  
4 Herbicide application – intended to eradicate invasive plants – also results in a  
5 loss of native plant diversity because herbicides kill native plants as well as  
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10 Service concedes:

11 Native plants are the foundation upon which the ecosystems of the  
12 Forest are built, providing forage and shelter for all native wildlife,  
13 bird and insect species, supporting the natural processes of the  
14 landscape, and providing the context within which the public find  
15 recreational and spiritual opportunities. All these uses or values of  
16 land are hindered or lost by conversion of native vegetation to  
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25 [AR 2:057 at 22](#). The ecological threats posed by noxious weed infestations are so  
26 great that a former chief of the Forest Service called the invasion of noxious weeds  
27 “devastating” and a “biological disaster.” [AR 3:143 at 2, 5](#).

28 Noxious weeds have expanded into every county in Montana. See [AR](#)  
[3:113 at 1](#). In particular, “[n]ative vegetation has been severely impacted . . . .” on

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<sup>2</sup>Alliance concedes that Rinella et al 2009 was not part of the administrative record in this case and was not presented to the agency before it made its final decision. However, Alliance would have submitted this study to the Forest Service if the agency had created an environmental assessment (EA) and conducted NEPA notice and comment for its annual pesticide use plan for 2009.

1 the Forest. [AR 3:003 at 3](#). Thus, despite implementation of Forest Service “best  
2 management practices” (BMPs) and the 1997 Kootenai National Forest herbicide  
3 treatment plan, the noxious weed infestation on the Forest is getting worse. [AR](#)  
4 [3:010 at 3](#); *see also* [AR 2:015 at 19](#); [AR 3:149 at 30](#). Noxious weeds will likely  
5 overtake native plant populations on the Forest if introduced into areas that are not  
6 yet infested. [AR 3:149 at 30](#).

7  
8  
9 The Forest Service has recognized that the effects of noxious weed  
10 invasions may be irreversible. *See e.g.* [AR 3:003 at 2](#). Even if weeds are  
11 eliminated with herbicide treatment, they may be replaced by other weeds, not by  
12 native plant species. *See e.g.* [AR 3:005 at 7](#); [Rinella et al 2009 at 5, 7](#).  
13  
14 Additionally, when areas treated with herbicides are reseeded on the Forest, they  
15 are usually reseeded with exotic grasses, not native plant species. [AR 3:005 at 8](#).

### 16 17 18 **C. Causes of Invasive Plant Infestations**

19 The Forest Service’s own management activities are largely responsible for  
20 noxious weed infestations; in particular, logging, certain types of grazing,  
21 prescribed burns, and road construction and use create a risk of weed infestations.  
22 *See* [AR 2:051 at 1-3](#). Roads “are often the first place new invader weeds are  
23 introduced.” [AR 3:010 at 4](#). Vehicle traffic and soil disturbances from road  
24 construction and maintenance create ideal establishment conditions for weeds.  
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1 [AR 3:130 at 7](#); [AR 3:051 at 9](#). Roads also provide “obvious dispersal corridors.”  
2  
3 [AR 3:086 at 2](#). One Montana study demonstrated that a vehicle picked up 2,000  
4 knapweed seeds after driving several feet through knapweed, and that the vehicle  
5 was still dispersing those seeds after driving ten miles from the infestation. [AR](#)  
6 [3:116 at 5](#).  
7

8 The Forest Service conceded that roadsides through the Forest “are  
9 frequently infested with noxious weeds . . . .” [AR 3:010 at 4](#). Once established  
10 along roadsides, invasive plants may spread into adjacent grasslands. [AR 3:116 at](#)  
11 [5](#). The Forest Service estimates that 23,862 acres on the Forest are vulnerable to  
12 weed infestation from past road-building activities, and that future road-building  
13 activities will put more land at risk. [AR 2:017 at 3-4](#).  
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16 Noxious weed infestations are also associated with contaminated livestock  
17 feed, contaminated seed, and poor range management practices. [AR 2:015 at 22](#).  
18 The Forest Service admits that grazing allotments on the Forest are “infested” with  
19 noxious weeds. [AR 3:010 at 6](#). It also admits that one species in particular –  
20 tansy ragwort<sup>3</sup> – appears to be spread by cows. [AR 3:010 at 6](#). The Forest Service  
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25 <sup>3</sup>Tansy ragwort is one of the “highest priority” weeds on the Forest, and has  
26 a “high probability of causing severe economic or environmental damage.” [AR](#)  
27 [3:010 at 3](#); [AR 3:150 at 43](#).  
28

1 estimates that 95,700 acres are at “high risk of weed invasion” because of past and  
2 future livestock grazing. [AR 2:017 at 4](#).

3  
4 The introduction of logging equipment into the Forest creates and  
5 exacerbates noxious weed infestations. [AR 3:150 at 42](#). The removal of trees  
6 through logging can also facilitate the establishment of noxious weed infestations  
7 because of soil disturbance and the reduction of canopy closure. [AR 3:010 at 6](#);  
8 *see also* [AR 3:051 at 8](#). In general, noxious weeds occur in clearcuts, but are rare  
9 in mature and old growth forests. [AR 3:086 at 7](#). The Forest Service estimates  
10 that 218,360 acres are at “high risk for weed invasion” because of past  
11 clearcutting, [AR 2:017 at 3](#), and projects that 12,875 more acres of proposed  
12 clearcut logging will create conditions “conducive to weed establishment and  
13 spread.” [AR 2:017 at 4](#).

14  
15 The Forest Service predicts that under the Weeds Plan, noxious weeds will  
16 continue to spread at a rate of 1 - 2% annually. [AR 2:017 at 102](#).

#### 17 18 **D. Efficacy of Herbicide Application**

19  
20 Noxious weeds are not eradicated with single herbicide treatments. A one-  
21 time application may kill an individual plant but dormant seeds in the ground can  
22 still sprout after herbicide treatment. For example, leafy spurge seeds can remain  
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1 dormant in the soil but still viable for eight years, [AR 3:116 at 10](#), as can 90% of  
2 knapweed seeds, [AR 3:051 at 6](#). Other weed seeds may remain viable after 20, or  
3 even 100 years. [AR 3:051 at 6](#). Thus, herbicides must be used on consistent,  
4 repetitive schedules to be effective. [AR 3:116 at 16 - 17](#); [AR 7:045 at 4](#); [AR](#)  
5 [3:003 at 3](#); [AR 3:068 at 9](#). The Weeds Plan did not include or commit to a long-  
6 term, consistent strategy of application for each site-specific area. *See* [AR 2:042](#)  
7 [at 3-4](#).

### 11 III. ARGUMENT

12 Judicial review of federal agency actions is permitted by the APA. The  
13 APA states that reviewing courts “shall [] hold unlawful and set aside agency  
14 action, findings, and conclusions found to be (A) arbitrary, capricious, an abuse of  
15 discretion, or otherwise not in accordance with law” or “(D) without observance of  
16 procedure required by law . . . .” 5 U.S.C. § 706(2). To determine compliance  
17 with these standards, the reviewing court should conduct a searching and careful  
18 inquiry. *Marsh v. Oregon Natural Resources Council*, 490 U.S. 360, 378 (1989).  
19 The court is not obliged to “rubberstamp” an agency’s decision. *Nat.’l Labor*  
20 *Relations Board v. Brown*, 380 U.S. 278, 291 (1965); *see also Natural Resource*  
21 *Defense Council v. Daley*, 209 F.3d 747, 755 (D.C. Cir. 2000)(reviewing court  
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1 does not “hear cases merely to rubberstamp agency actions . . . . The [agency]  
2 cannot rely on ‘reminders that its scientific determinations are entitled to  
3 deference’ in the absence of reasoned analysis . . . .”

5 A decision is arbitrary and capricious if the agency “relied on factors which  
6 Congress has not intended it to consider, entirely failed to consider an important  
7 aspect of the problem, offered an explanation for its decision that runs counter to  
8 the evidence before the agency, or is so implausible that it could not be ascribed to  
9 a difference in view or the product of agency expertise.” *Motor Vehicle Mfrs.*  
10 *Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983). The agency’s  
11 findings must support its decision, and those findings must be supported by  
12 substantial evidence—there must be a rational connection between the facts found  
13 and the choices made. *Burlington Truck Lines. v. United States*, 83 S. Ct. 239,  
14 245-246 (1962).

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19 **A. The agencies violate the ESA, NFMA, and NEPA because implementation**  
20 **of the Weeds Plan will adversely impact threatened grizzly bear populations.**

21 The Forest provides a home for the ESA-listed grizzly bear populations in  
22 the Cabinet-Yaak Ecosystem (CYE) and the Northern Continental Divide  
23 Ecosystem (NCDE). [AR 25:001 at 374](#). The Forest provides a small amount of  
24 the total habitat for the NCDE bears (3%), but provides the majority of habitat for  
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1 the CYE bears (70%). [AR 25:001 at 374, 376](#). There are an estimated 35 CYE  
2 bears surviving in the wild, [AR 6:025 at 7](#), and the minimum viable population is  
3 100 bears. [AR 6:114 at 91](#). The probability that the population is declining is  
4 91%. [AR 6:044 at 5](#). The precarious population status of the CYE bears warrants  
5 their uplisting under the ESA from “threatened” to “endangered.” [AR 3:149 at](#)  
6 [56](#).

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10 **1. The Forest Service’s conclusion, and the Wildlife Service’s**  
11 **concurrence, that the Weeds Plan is “not likely to adversely affect” the**  
12 **grizzly bear is not based on the best available science.**

13  
14 ESA § 7 sets forth a procedural requirement that requires an agency  
15 proposing an action, in this case the Forest Service, to consult with an expert  
16 agency, in this case the Wildlife Service, to evaluate the consequences of a  
17 proposed action on a listed species. [16 U.S.C. § 1536\(a\)\(2\)](#). If the action agency  
18 determines that a proposed action “may affect” but will “not adversely affect” a  
19 threatened or endangered species, the action agency must consult informally with  
20 the appropriate expert agency, which usually occurs by means of a letter of  
21 concurrence. [50 C.F.R. §§ 402.14 \(b\)\(1\), 402.12\(k\)\(1\)](#). If the action “is likely to  
22 adversely affect” a listed species, the action agency must formally consult with the  
23 expert agency, and the expert agency must provide the action agency with a  
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1 Biological Opinion that evaluates how the proposed action will affect the species  
2 or its habitat. [16 U.S.C. § 1536\(a-c\)](#); [50 C.F.R. § 402.14](#).

3  
4 During these consultations, each agency must use the best scientific and  
5 commercial data available. [16 U.S.C. § 1536\(a\)\(2\)](#). When applying the best  
6 available science, the agencies cannot ignore available information because that  
7 would “eviscerate Congress' intent to ‘give the benefit of the doubt to the  
8 species.’” [Connor v. Burford, 848 F.2d 1441, 1454 \(9<sup>th</sup> Cir. 1988\)](#).

9  
10  
11 The Weeds Plan authorizes the Forest Service to use helicopters to spray  
12 herbicides over core grizzly habitat. [AR 6:025 at 4](#). The helicopters will conduct  
13 multiple passes a day over potentially two days per bear management unit. [AR](#)  
14 [2:017 at 81](#). This amount of work is considered high frequency and (potentially)  
15 long duration. [AR 6:060 at 3](#).

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18 Helicopters cause grizzly bears to panic and flee “in nearly all cases.” [AR](#)  
19 [6:025 at 10](#). Grizzly bears never become tolerant of helicopters, even with  
20 frequent exposure. [AR 6:111 at 21](#). Grizzlies may abandon areas in response to  
21 even infrequent overflights, and the consequences of habitat abandonment “can be  
22 serious, particularly for species whose high-quality habitat is already scarce.” [AR](#)  
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1 [6:111 at 17](#). The Forest Service determined that aerial herbicide spray operations  
2 would likely displace individual bears up to one mile. [AR 6:025 at 10](#).  
3

4 The Forest Service’s own guidance document on determining how  
5 helicopters affect grizzly bears states:  
6

7 Any human activities that would result in displacement or disturbance  
8 to bears sufficient to produce any of the results listed above [fleeing,  
9 physiological changes, increased heart rate, displacement to lower  
10 quality habitat, and increased energetic demands] should be  
11 considered a negative effect for the purposes of effects analysis in a  
12 Biological Assessment. Helicopter use clearly has the potential to  
13 produce these negative effects. Unless an extenuating circumstance  
14 exists, therefore, the **appropriate effects determination for low  
15 altitude and high frequency or extended duration helicopter use is  
16 “may affect, likely to adversely affect.”**

17 [AR 6:060 at 4](#) (emphasis added).  
18

19 The low altitude helicopter herbicide spraying authorized by the Weeds Plan  
20 will be at least high frequency, and potentially also long duration, [AR 2:017 at 81](#),  
21 [AR 6:060 at 3](#), thus the available information in the record indicates a likely  
22 adverse impact from the application of herbicide via helicopter.<sup>4</sup> *See also Alliance*  
23 *for the Wild Rockies v. U.S. Forest Service, et al.*, CV-07-150-M-DWM at 25 (D.  
24 [Mont. July 30, 2008](#)) (This Court holding that the same agencies made an

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25 <sup>4</sup>As discussed in more detail below, the record also indicates a likely adverse  
26 impact from the elimination of spring grizzly forage and toxic responses to the  
27 herbicides themselves.

1 arbitrary decision when they similarly concluded that helicopter flights over CYE  
2 grizzly bear habitat for logging operations in the same Forest were not likely to  
3 adversely affect the CYE grizzly bear.) Nonetheless, despite the Forest Service's  
4 own guidance document, and despite the contrary information from studies in the  
5 record, the agencies both concluded that implementation of the Weeds Plan would  
6 *not* adversely affect grizzly bears. [AR 6:025: 3](#); [AR 6:046 at 1](#).

7  
8  
9 The agencies' conclusions run counter to the evidence in the record, and are  
10 therefore arbitrary and must be set aside under the APA. [5 U.S.C. § 706\(2\)](#); *State*  
11 *Farm*, [463 U.S. at 43](#). The conclusions also must be set aside on ESA grounds  
12 alone because the agencies ignored the available studies in the record that indicate  
13 that the Weeds Plan will cause an adverse impact. *Connor*, [848 F.2d at 1454](#).

## 14 15 16 **2. The Weeds Plan will result in unauthorized take of grizzlies.**

17  
18 The ESA forbids any individual from "taking" an ESA-listed species. [16](#)  
19 [U.S.C. §1538\(a\)\(1\)\(B\)](#). "Take" is defined to include "harass." [16 U.S.C.](#)  
20 [§1532\(19\)](#). "Harass" is defined as an "intentional or negligent act . . . which  
21 creates the likelihood of injury to wildlife by annoying it to such an extent as to  
22 significantly disrupt normal behavioral patterns which include, but are not limited  
23 to, breeding, feeding, or sheltering." [50 C.F.R. §17.3](#).

1 Certain herbicides authorized by the Weeds Plan may degrade the  
2 reproductive capacity of male bears. [AR 7:008 at 2-3](#). The Weeds Plan allows  
3 herbicide spraying that will eliminate spring forage at a stage of the bear's life  
4 cycle when it may be consuming a 100% vegetation diet. [AR 6:025 at 9](#).  
5  
6 Furthermore, the Weeds Plan allows herbicide spraying that will displace grizzly  
7 bears up to a mile from low-flying helicopters, [AR 6:025 at 10](#), with a potential  
8 repercussion that the bears will permanently abandon certain habitat, [AR 6:111 at](#)  
9 [17](#). Thus, the Weeds Plan will significantly disrupt breeding, feeding, and  
10 sheltering activities, and thereby constitutes a "take" under the ESA in several  
11 different ways. [16 U.S.C. §1532\(19\)](#); [50 C.F.R. §17.3](#). The take from this Weeds  
12 Plan violates the ESA because the Forest Service did not obtain an incidental take  
13 permit from the Wildlife Service. [16 U.S.C. §1538\(a\)\(1\)\(B\)](#); [16 U.S.C. §](#)  
14 [1536\(b\)\(4\)](#).  
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19 **3. The Weeds Plan allows activities that are not compatible with the**  
20 **needs of the grizzly bear.**

21 NFMA requires that each National Forest must develop a "Land and  
22 Resource Management Plan" (i.e. a forest plan). [16 U.S.C. § 1604 \(d\)](#). The  
23 "Forest Service's failure to comply with the provisions of a Forest Plan is a  
24 violation of NFMA." *Native Ecosystems Council v. U.S. Forest Service*, 418 F.3d  
25 [953, 961 \(9th Cir. 2005\)](#)[*NEC*](citing [16 U.S.C. §1604\(i\)](#) and cases).  
26  
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1 The Kootenai Forest Plan proscribes special management guidance for  
2 certain designated grizzly bear use areas, called Management Situation (MS)  
3 lands. [AR 25:002 at 289-307](#). The majority of the Forest is designated as MS-1  
4 lands. [AR 25:002 at 294](#). On MS-1 lands, the Forest Plan requires the following:

5  
6 Management decisions will favor the needs of the grizzly bear when  
7 grizzly habitat and other land use values compete. Land uses which  
8 can affect grizzlies and/or their habitat will be made compatible with  
9 grizzly needs or such uses will be disallowed or eliminated.  
10 Grizzly/human conflicts will be resolved in favor of grizzlies unless  
11 the bear involved is determined to be a nuisance.

12 [AR 25:002 at 293](#); *see also Swan View Coalition v. Barbouletos*, 307 Fed.Appx.  
13 49, 50-51 (9<sup>th</sup> Cir. 2009)(upholding this provision in a different National Forest  
14 Plan).

15  
16 As discussed above, the helicopter use authorized by the Weeds Plan will  
17 cause bears to panic and flee, potentially resulting in permanent abandonment of  
18 their habitat. [AR 6:025 at 10](#); [AR 6:111 at 17](#). Additionally, herbicide application  
19 will eliminate spring forage for bears, potentially permanently, but at least for two  
20 to three years. [AR 6:025 at 9-10](#); *Rinella et al (2009) at 5, 7*. Finally, contact with  
21 herbicides may disrupt reproductive capacity in male bears, as well as cause  
22 malformations and mutagenic responses. [AR 7:008 at 2-3](#). These adverse impacts  
23 are not compatible with the survival needs of the grizzly bear because they disrupt  
24 sheltering, feeding, breeding, and other normal behavioral functions. Therefore,  
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1 the Forest Service is violating its Forest Plan requirement to avoid land  
2 management activities that are incompatible with the needs of the grizzly bear, [AR](#)  
3 [25:002 at 293](#), which in turn violates NFMA, [NEC, 418 F.3d at 961](#). The  
4 approval of the Weeds Plan must be set aside because of this violation of NFMA.  
5  
6 [5 U.S.C. § 706\(2\)](#).

7  
8 **B. The approval of the Weeds Plan violates NEPA and NFMA because the**  
9 **EIS did not include an alternative that included preventive measures**  
10 **addressing the causes of noxious weed infestations.**

11 NFMA requires that the Forest Service maintain native plant diversity and  
12 avoid irreversible damage to soils. [16 U.S.C. §1604\(g\)\(3\) \(B\), \(E\)](#). NEPA directs  
13 federal agencies to prepare a detailed environmental impact statement (EIS) for  
14 federal actions that may significantly affect the environment. [42 U.S.C. §](#)  
15 [4332\(2\)\(C\)](#). In an EIS an agency must “rigorously explore and objectively  
16 evaluate all reasonable alternatives.” [40 C.F.R. § 1502.14\(a\)](#). The evaluation of  
17 alternatives is the “heart” of an EIS, thus “the existence of a viable but  
18 unexamined alternative renders an [EIS] inadequate.” [Natural Resources Defense](#)  
19 [Council v. U.S. Forest Service, 421 F.3d 797, 813 \(9<sup>th</sup> Cir. 2005\)](#)(citations  
20 omitted). The Forest Service’s failure to consider preventive measures in a  
21 noxious weed management plan violates NEPA because it is a failure to consider  
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1 an “obviously reasonable alternative.” [Blue Mountains Biodiversity Project v.](#)  
2 [U.S. Forest Service, 229 F.Supp.2d 1140, 1146-47 \(D. Or. 2002\).](#)  
3

4 Native plants are the fundamental building blocks of an ecosystem. [AR](#)  
5 [2:057 at 22](#). The Forest Service has recognized that the effects of noxious weed  
6 invasions on native plant diversity may be irreversible. *See e.g.* [AR 3:003 at 2](#);  
7 [AR 3:130 at 1](#). Moreover, by removing native vegetative cover, invasive plants  
8 can also harm soils by increasing erosion and surface runoff, [AR 3:070 at 1](#), and  
9 depleting soil nutrients and changing the physical structure of soils, [AR 3:116 at 3](#).  
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12 Attempts to eliminate noxious weeds with herbicide may actually  
13 exacerbate the problem: recent research indicates that native plant species may be  
14 eliminated permanently or for an extended time period by herbicide treatment,  
15 while weeds will re-establish themselves. [Rinella et al at 5, 7](#). Additionally, even  
16 if areas treated with herbicides are reseeded on the Forest, they are usually  
17 reseeded with exotic grasses, not native plant species. [AR 3:005 at 8](#).  
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21 The Forest Service admits that major causes of the noxious weed  
22 infestations are its own land management activities, including logging, road  
23 building and use, and cattle grazing. *See* [AR 2:051 at 1-3](#). The Forest Service  
24 admits that – even with herbicide application over thousands of acres – its land  
25 management activities will continue to cause noxious weed infestations over  
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1 thousands of acres at increasing rates. [AR 3:003 at 3](#); [AR 2:017 at 14](#); [AR 2:017](#)  
2 [at 102](#).

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4 A weed ecologist whose work is frequently cited in the FEIS stated that “[i]t  
5 is becoming increasingly clear the prescriptions for rangeland weed control are not  
6 sustainable because they treat the symptoms of weeds rather than their cause.” [AR](#)  
7 [2:032 at 6](#). The scientific and managerial consensus is that prevention is the most  
8 effective way to manage noxious weeds. [AR 2:057 at 18-19](#); [AR 2:015 at 24](#); [AR](#)  
9 [3:146 at 10](#); [AR 3:051 at 10](#); [AR 3:113 at 1](#); [AR 3:114 at 1](#); [AR 3:116 at 5](#). The  
10 Forest Service concedes that preventing the introduction of weeds into uninfested  
11 areas is “the *most critical component* of a weed management program.” [AR 3:051](#)  
12 [at 11](#) (emphasis added).

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14 A former chief of the Forest Service suggested that the Forest Service could  
15 include minimum standards in forest plans to address noxious weed infestations.  
16 [AR 3:143 at 26](#). Likewise, the Forest Service’s national management strategy for  
17 noxious weeds also recommends “develop[ing] and implement[ing] forest plan  
18 standards . . . .” [AR 3:146 at 11](#). The Forest Service even recognized in the FEIS  
19 that “stopping weed seed transport via the usual vectors including vehicles,  
20 contaminated seed, contaminated livestock, clothing and recreational equipment,”  
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1 is the “cheapest and most effective method of weed control available.” [AR 2:015](#)  
2 [at 27](#).

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4 Despite all of the evidence in the record that noxious weeds threaten native  
5 plant diversity, that the Forest Service’s own management activities are causing  
6 noxious weed infestations, and that the cheapest and most effective solution is  
7 prevention, the Weeds Plan EIS did not include an alternative with land  
8 management standards that will prevent weed infestations by addressing the  
9 causes of the problem. In light of the evidence in the record, the Forest Service’s  
10 failure to include preventive standards in the Weeds Plan is arbitrary under the  
11 APA because it ignores an important – indeed the *most* important – element of the  
12 problem. [State Farm, 463 U.S. at 43](#). The failure to include preventive standards  
13 also violates NFMA because the Forest Service is not ensuring the protection of  
14 soils and native plant communities. [16 U.S.C. §1604\(g\)\(3\) \(B\), \(E\)](#). Additionally,  
15 the omission of an EIS alternative that includes preventive measures violates  
16 NEPA because the Forest Service failed to consider a reasonable alternative in the  
17 Weeds Plan EIS. [40 C.F.R. § 1502.14\(a\)](#); [Council, 421 F.3d at 813](#); [Blue](#)  
18 [Mountains, 229 F. Supp. 2d at 1146-47](#). The approval of the Weeds Plan must be  
19 set aside because of the arbitrary nature of the Forest Service’s decision, as well as  
20 the violations of NEPA and NFMA. [5 U.S.C. § 706\(2\)](#).

1 **C. The Forest Service violates NEPA because the Weeds Plan does not**  
2 **require NEPA analysis for the annual site-specific herbicide treatment plans.**

3 The Forest Service has a “duty to follow NEPA in reviewing future site-  
4 specific programs” that implement a programmatic herbicide plan. [Salmon River](#)  
5 [Concerned Citizens v. Robertson, 32 F.3d 1346, 1357 \(9<sup>th</sup> Cir. 1994\)](#). Thus,  
6 “cumulative effects of herbicide exposure particular to a site-specific project must  
7 be considered in the preparation of site-specific environmental assessments.”  
8  
9 [Robertson, 32 F.3d at 1357](#); *see also* [Blue Mountains, 229 F. Supp. 2d at 1143](#);  
10 [Save Our Ecosystems v. Clark, 747 F.2d 1240, 1247 \(9<sup>th</sup> Cir. 1984\)](#); [Southern](#)  
11 [Oregon Citizens Against Toxic Sprays, Inc. V. Clark, 720 F.2d 1475, 1480 \(9<sup>th</sup> Cir.](#)  
12 [1983\)](#)(all cases where agency completed EA for site-specific implementation of  
13 herbicide plan).

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17 The Weeds Plan does not direct the Forest Service to create an EA – which  
18 would include environmental analysis, public notice, and public comment – for its  
19 annual herbicide application plans, and instead only requires the creation of an  
20 “annual pesticide use proposal” that is stored in an agency file. [AR 2:058 at 2](#).  
21  
22 Accordingly, the Forest Service did not complete an EA for its 2008 annual  
23 herbicide application plan. [AR 24:002 at 2, 24:004 - 24:012](#). The Forest Service’s  
24 failure to require an annual site-specific EA as part of the Weeds Plan violates  
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1 NEPA, [Robertson, 32 F.3d at 1357](#), and the Weeds Plan must therefore be set  
2 aside under the APA as contrary to law, [5 U.S.C. § 706\(2\)](#).  
3

4 **D. The Forest Service violates NEPA and NFMA because the EIS does not**  
5 **take a hard look at impacts of the Weeds Plan on the viability of migratory**  
6 **songbirds.**

7 The Forest Service must take a “hard look” at the environmental effects of  
8 its actions in an EIS. [Sierra Club v. Bosworth, 510 F.3d 1016, 1018 \(9<sup>th</sup> Cir.](#)  
9 [2007\)](#)(citations omitted). The agency fails to take the requisite hard look when it  
10 provides only general or conclusory statements on potential effects, and fails to  
11 provide quantified or detailed information. [Bosworth, 510 F.3d at 1029-1030](#)  
12 (citations omitted). More specifically, “the Forest Service must ensure that  
13 impacts are assessed at a level of detail such that useful data can be generated to  
14 facilitate review.” [Bosworth, 510 F.3d at 1029-1030](#) (citations omitted). The  
15 Kootenai Forest Plan requires the Forest Service to maintain the viability of native  
16 species,<sup>5</sup> [AR 25:002 at 68](#), and this provision is legally enforceable through  
17 NFMA, [NEC, 418 F.3d at 961](#).  
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22 The Weeds Plan allows herbicides to be aerially sprayed over areas with  
23 tree and shrub cover, and the design criteria do not limit spraying based on percent  
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26 <sup>5</sup>This requirement to maintain viable populations of native species is also  
27 found in the 1982 NFMA planning regulations, which were incorporated into the  
28 Weeds Plan by reference. *See e.g.* [AR 2:017 at 39](#), [59](#), [63](#), [68](#), [75](#), [94](#).

1 canopy closure, nor preclude the use of any herbicide. [AR 2:058 at 2-3](#). Thus,  
2 trees and shrubs may be killed during aerial herbicide spraying. See [AR 3:005 at](#)  
3 [6](#); [AR 2:017 at 28](#). The defoliation of forest cover for birds and small mammals  
4 can have a dramatic impact on habitat suitability. [AR 3:261.7 at 10](#). The Forest  
5 Service admits that the application of 2,4-D at all application rates may have  
6 adverse impacts on migratory birds, particularly on the 30,000 acres proposed for  
7 aerial spraying. [AR 2:017 at 95](#).

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11 Despite its admission that aerial spraying could have adverse impacts on  
12 birds, the Forest Service conducted no analysis on whether the adverse impacts  
13 will threaten the viability of the affected bird species. Without any detailed  
14 information regarding the expected extent of the adverse impact, it is impossible  
15 for the public and Court to determine whether the Forest Service is violating its  
16 duty to ensure viability of the affected species. Thus, the Forest Service violates  
17 NEPA by failing to take the requisite hard look at the issue, [Bosworth, 510 F.3d at](#)  
18 [1029-1030](#), and violates NFMA by failing to ensure the viability of bird species in  
19 the affected area, [AR 25:002 at 68](#); [NEC, 418 F.3d at 961](#). The approval of the  
20 Weeds Plan must be set aside because of these violations of NEPA and NFMA. [5](#)  
21 [U.S.C. § 706\(2\)](#).

1 **E. The Forest Service violates NEPA because it did not take a hard look at**  
2 **the adequacy of the mitigation measures for aerial herbicide drift in the EIS.**

3 NEPA requires that the Forest Service take a “hard look” at the impacts of  
4 its actions, particularly in regards to proposed mitigation measures. [Neighbors of](#)  
5 [Cuddy Mountain v. U.S. Forest Service, 137 F.3d 1372, 1380 \(9<sup>th</sup> Cir. 1998\).](#)

6  
7 More specifically, in plans to aerially spray herbicides, the Forest Service must  
8 support its mitigation measures with analytical data on their efficacy. [League of](#)  
9 [Wilderness Defenders v. Forsgren, 309 F.3d 1181, 1192 \(9<sup>th</sup> Cir. 2002\).](#) If  
10 proposed design criteria conflict with guidelines in the record, the agency must at  
11 least explain its rationale for implementing less protective measures. *See*  
12 [Forsgren, 309 F.3d at 1192.](#)

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16 Some amount of herbicide will always drift from its targets during aerial  
17 spray operations. [AR 2:003 at 122.](#)<sup>6</sup> Studies have documented widespread low  
18 level damage on sensitive plants several miles from aerial herbicide spray  
19 operations. *See e.g.* [AR 7:071 at 2.](#) The most recent herbicide drift study cited in  
20 the FEIS drift discussion is Felsot (2001). *See* [AR 2:003 at 17.](#) The report  
21 recommends applying aerial herbicides as a last resort, and at speeds no greater  
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26 <sup>6</sup>Citations to AR 2:003 are citations to Chapter Three of the DEIS because  
27 the administrative record is missing the last 52 pages from Chapter Three of the  
28 FEIS (AR 2:017).

1 than 3 mph, not applying during an inversion, and not applying when rain is  
2 forecasted in the next 24 hours. [AR 3:050 at 34-35](#). The design criteria for the  
3 Weeds Plan did not incorporate *any* of these recommendations. The design  
4 criteria only prohibit aerial herbicide spraying if wind speed is 6 mph or greater,  
5 and require a 100 foot buffer for intermittent streams and a 300 foot buffer for live  
6 water. [AR 2:058 at 2-3](#).

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9 The Forest Service fails to explain why it did not adopt the mitigation  
10 measures suggested in its most recent study on aerial herbicide drift. The Forest  
11 Service's failure to discuss these suggested mitigation measures in the EIS, and  
12 explain its rejection of them, is a violation of NEPA because the Forest Service  
13 failed to take a hard look at the adequacy of its proposed mitigation measures.  
14 [Forsgren, 309 F.3d at 1192](#); [Neighbors, 309 F.3d at 1192](#). The failure to discuss  
15 the measures proposed by Felsot (2001) is also arbitrary because the Forest  
16 Service failed to consider an important factor in the EIS. [State Farm, 463 U.S. at](#)  
17 [43](#). Thus, the Forest Service's approval of the Weeds Plan must be set aside  
18 because of the arbitrary nature of the decision, as well as the violation of NEPA. [5](#)  
19 [U.S.C. § 706\(2\)](#).  
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1 **F. The Forest Service violates NEPA because it did not candidly disclose the**  
2 **human health effects of herbicides to the public in the EIS.**

3 One of the primary purposes of NEPA is to foster “informed public  
4 participation.” See [NEC, 418 F.3d at 960](#). To accomplish that purpose an EIS  
5 must candidly disclose the risks of a proposed action. [Friends of the Earth v.](#)  
6 [Hall, 693 F.Supp. 904, 937 \(W.D. Wash. 1988\)](#). When addressing potential toxic  
7 effects to the public, the agency cannot relegate the discussion of those effects to a  
8 risk assessment in the record – the effects must be disclosed in the NEPA  
9 document itself. [Californians for Alternatives to Toxics v. Dombeck, CV S-00-](#)  
10 [2016-LKK-JFM slip op. at 34 \(E.D. Cal. 2001\)](#).

11 The FEIS for the Weeds Plan does not provide a full disclosure of possible  
12 effects to the public from herbicide spraying. The full extent of disclosures to the  
13 public in the EIS are that (a) if picloram and dicamba are mixed it could cause a  
14 “mild skin rash,” [AR 2:003 at 128](#); (b) the surfactant R-11 could cause endocrine  
15 disruption, [AR 2:003 at 120](#); (c) picloram presents a two in one million chance of  
16 cancer risk for workers spraying it, [AR 2:003 at 126](#); and (d) certain surfactants  
17 may have impacts on “sensitive” individuals, such as neuropathy/impaired nerve  
18 function from 2,4-D, impaired blood filtration from triclopyr, and kidney, liver,  
19 and fetal effects, [AR 2:003 at 128-129](#). The Forest Service concluded that “[n]o  
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1 information of concern is presented in these documents relating to carcinogenicity,  
2 mutagenicity, or teratogenicity.” [AR 2:003 at 118](#).

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4 A member of the public reading the EIS would not be informed of the true  
5 extent of potential effects from herbicide spraying. The Forest Service failed to  
6 disclose the following documented adverse health impacts to the public in the  
7 human health discussion of the EIS:  
8

- 9 ● 2,4-D can bioaccumulate and has been found in eggs, milk, and meat, [AR](#)  
10 [3:261.9 at 6](#);
- 11 ● Dogs can develop malignant lymphoma when exposed to 2,4-D, [AR 3:261.9](#)  
12 [at 6](#);
- 13 ● 2,4-D can cause severe eye damage to humans, [AR 3:261.9 at 1, 7](#);
- 14 ● Exposure to 2,4-D has been associated with paralysis, numbness or  
15 tingling, weakness, headache, dizziness, stomach pains, nausea, brief loss of  
16 consciousness, moderate leukopenia (an abnormal reduction in the number  
17 of white blood cells, often reducing immune system function), non-  
18 Hodgkins lymphoma, and cervical cancer, [AR 3:261.9 at 8](#); [AR 1:38 at 7, 9-](#)  
19 [11](#), brain cancer, breast cancer, [AR 1:38 at 11](#), embryo deaths, kidney and  
20 urogenital effects, spontaneous abortions, skeletal malformations, birth  
21 defects, [AR 1:38 at 12](#), semen abnormality, [AR 1:38 at 13](#), lower fecundity  
22 in humans, [AR 1:38 at 14](#), hepatitis, [AR 1:38 at 15](#), immune and neurologic  
23 system disruption, [AR 1:38 at 16](#);
- 24 ● Picloram has been associated with liver and thyroid tumors, [AR 1:38 at 1](#),  
25 umbilical hernias, skeletal malformations, atrophied testicles, [AR 1:38 at 2](#),  
26 increased miscarriages, [AR 1:38 at 3](#);
- 27 ● Triclopyr has been associated with increased breast cancer, kidney effects in  
28 dogs, [AR 1:38 at 4](#), reproductive effects on rabbits and mice, disruption of

1 development of the nervous system, accumulation in primate brains, [AR](#)  
2 [1:38 at 5](#), embryo loss in rats, [AR 1:38 at 6](#);

- 3 ● Clopyralid is associated with skeletal abnormalities, secretion of hormones  
4 from gastrointestinal cells, decrease in maternal body weight, [AR 1:38 at 6](#),  
5 substantial reproductive effects, [AR 1:38 at 7](#);
- 6 ● Hexachlorobenzene cause cancer in animals in low doses, [AR 1:38 at 2](#);
- 7 ● Clopyralid, [AR 3:261.10 at 1](#), hexazinone, [AR 3:261.14 at 1](#), and triclopyr,  
8 [AR 3:261.19 at 1](#), can all cause severe eye damage;
- 9 ● Hexazinone has been associated with reproductive effects, including birth  
10 defects, [AR 1:38 at 17](#);
- 11 ● Sulfometuron methyl has been associated with testicular abnormalities,  
12 including testicular atrophy, small litters of rats and rabbits, [AR 1:38 at 18](#),  
13 anemia, leukemia, cancer of the immune system, liver and kidney effects,  
14 stimulated human insulin production, cardiovascular mortality, thyroid  
15 effects, [AR 1:38 at 19](#);
- 16 ● Imazapyr has been associated with brain, thyroid, and adrenal tumors, [AR](#)  
17 [1:38 at 20](#), lung edema, kidney cysts, blood cell malformation, brain  
18 congestion, [AR 1:38 at 22](#). Imazapic has been associated with thyroid  
19 tumors and cancers, [AR 1:38 at 21](#), undeveloped ribs, muscle degeneration,  
20 anemia, liver enlargement, elevated cholesterol, [AR 1:38 at 22](#);
- 21 ● Dicamba is associated with non-Hodgkin's lymphoma, birth defects, [AR](#)  
22 [1:38 at 24](#), spontaneous abortions, stunted egg development, [AR 1:38 at 25](#);
- 23 ● Glyphosate is associated with non-Hodgkin's lymphoma, [AR 1:38 at 26](#),  
24 steroid hormone disrupters, kidney tumors, [AR 1:38 at 27](#), birth defects,  
25 attention deficit/hyperactivity disorder, [AR 1:38 at 28](#), reduced sperm  
26 counts, [AR 1:38 at 29](#), miscarriages, chromosome and DNA damage, [AR](#)  
27 [1:38 at 3](#); and
- 28 ● Scientists have found that “[c]ombinations of herbicides . . . can have  
additive and synergistic effects in which a formulation of two or more

1 herbicides is two to 100 times as toxic as any one of the herbicides alone.”  
2 [AR 3:261.7 at 12.](#)

3 The Forest Service’s failure to disclose these potential health impacts in the  
4 EIS violates NEPA because it failed to candidly disclose the effects of herbicides  
5 to the public. [Friends, 693 F.Supp. at 937](#); [Californians, CV S-00-2016-LKK-](#)  
6 [JFM slip op. at 34.](#) The approval of the Weeds Plan must be set aside for this  
7 violation of NEPA. [5 U.S.C. § 706\(2\).](#)  
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#### 10 IV. CONCLUSION

11 The implementation of the tens of thousands of acres of herbicide spraying  
12 authorized by the Weeds Plan will harm the threatened grizzly bear, degrade  
13 native plant diversity, adversely impact bird species, and present human health  
14 risks. The potential benefit of short-term weed eradication does not outweigh  
15 these harms, especially in light of the facts that (a) *prevention* – not herbicide  
16 application – is the most effective means of combating noxious weed infestations,  
17 and (b) the Forest Service refused to enact any preventive measures that would  
18 limit the activities that actually cause noxious weed infestations.  
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23 For all of the above stated reasons, Alliance respectfully requests that this  
24 Court grant Plaintiff’s Motion for Summary Judgment. The Weeds Plan violates  
25 NEPA, NFMA, and the ESA, and therefore must be set aside under the APA and  
26 ESA citizen suit provision. Alliance further requests that this Court enjoin  
27

1 implementation of the Weeds Plan and remand to the Forest Service to create a  
2 noxious weed management plan that focuses on solving the problem, instead of  
3 simply reacting to it, by creating enforceable management standards that confine  
4 the *causes* of noxious weed infestations on the Kootenai National Forest.  
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8 Respectfully submitted this 1<sup>st</sup> day of July, 2009.

9  
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16

17 **CERTIFICATE OF COMPLIANCE**

18 The undersigned certifies that the foregoing brief is 6,497 words, excluding the  
19 caption, signature blocks, and certificate of compliance.  
20

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