Sierra Club Utah Chapter

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By electronic mail (vegeis@nv.blm.gov) and U.S. Mail

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Dear Mr. Amme:

1 The Sierra Club Utah Chapter submits these comments on the Draft Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States Programmatic EIS ("Vegetation Treatments PEIS").

2 We have a number of major concerns about the draft PEIS.

First, the PEIS and PER do not seem to reflect a coherent and scientific evaluation of the problem. For instance here is a paragraph from the introduction.

3 > Much of the change in the vegetation on public lands and increase in hazardous fuels can be attributed to fire exclusion policies over the past 100 years. Contributors to the change include intermittent- and long-term drought over the past 40 years and an increase in the spread of noxious weeds species and invasive vegetation. Invasive vegetation and noxious weeds are highly competitive and can often out-compete native vegetation, especially on recently disturbed sites. Invasive vegetation and noxious weeds are the dominant vegetation on an estimated 35 million acres of public lands (USDI BLM 2000a). Invasive vegetation and noxious weeds threaten soil productivity, water quality and quantity, native plant communities, wildlife habitat, wilderness values, recreational opportunities, and livestock forage, and are detrimental to the agriculture and commerce of the U.S. and to public health (National Academy of Sciences 1968, USDI BLM 2000b). [PEIS 1-1]

4 **This paragraph segues from a discussion of hazardous fuels to the inherent harm resulting from invasion by exotic plant species and noxious weeds. There is no transition or relationship provided by this paragraph.** This is stated despite the fact that the exotic cheat grass is a major hazardous fuel on public lands. The paragraph also fails to deal with the full range of permitted activities that are major contributors to altered fire regimes and fire suppression. Livestock grazing, road building, water diversions and impoundments, and timber cutting have all contributed to the suppression of fires. In some plant communities these permitted activities far out weigh fire fighting in terms of fire suppression.

5 **In essence the Bureau of Land Management (BLM) has only identified a portion of the problem and a portion of the causes and yet presumes to make a programmatic environmental impact analysis for vegetation management.**

6 **Successful identification of a problem and its solution lies in correctly and clearly identifying the problem.** The second step is identifying root causes. The analysis of treatement processes can then identify those processes that are capable of altering the causes, be accomplished with a minimum of impact to the human environment, performed at a reasonable cost, and have a possibility of success.

7 **The PEIS then identifies a purpose and need which arbitrarily limits the analysis of the current situation, the problems or origin of the problem, and the availability of techniques for treating the problem.**

> The purposes of the proposed action are to provide BLM personnel with the herbicides available for vegetation treatment on public lands and to describe the conditions and limitations that apply to their use. [PEIS 1-3]

8 **The PEIS makes the arbitrary and unsupported leap to merely defining a list of chemicals that might at some future point be used in ways the PEIS does not identify as the most effective,** having the least environmental impact, or even scientifically supported as useful for solving the actual problem to be remedied.

9 The PEIS resembles the National and Aeronuatics Space Administration describing how to get to Mars using the celestial mechanics of Ptolemy. At some point the BLM needs to make a realistic identification of the universe and the manner in which it works. Exotic plants and fuel hazards have become a problem because of agency decisions not in spite of agency decisions.

10 For example, the BLM proposes to continue using the same treatment methods used in the past. Yet the PER notes:

> It is estimated that downy brome infests over 56 million acres in the 17 western states and that the infestation is growing at 14% per year (Duncan et al. 2005). Table 3- 5 indicates more than 24 million acres of public lands are infested with downy brome. [PER 3-77]

11 **It appears the BLM merely plans to continue treatments that have failed in the past and undoubtedly continue to fail in the future**. The BLM claims to have treated hundreds of thousands of acres annually but cannot even stem the increase of a single invasive and extremely undesirable plant.

The PER states that treatments will be base on the

> • Success of past restoration treatments or treatments conducted under similar conditions or recommendations by local experts (PER 2-8)

Yet there is not discussion of successful past restoration treatments. This is a huge failure in looking at treatment options.

12 The PEIS should be able to identify past treatments that have been effective in reducing non-native plants and noxious weeds. **The PEIS does not identify the number of acres that have been returned to the potential natural community through the use of chemicals,** mechanical, manual or biological treatment techniques. After decades of such efforts surely the BLM could identify such places that the public could visit. The BLM should be able to show on maps those acres which have been rehabilitated using chemical treatments.

13 **The Sierra Club Utah Chapter is concerned that the PEIS is attempting to sneak into a programmatic EIS a series of treatments which are not analyzed by publishing the PER at the same time as the PEIS and apparently linked to the PEIS in a loose fashion.**

14 This PER discloses the general impacts on the environment of using non-herbicide treatment methods, including fire use, and mechanical, manual and biological control methods, to treat hazardous fuels, invasive species, and other unwanted or competing vegetation.

15 The PEIS analyzes the effects of herbicide use on humans, plants, and animals and other environmental and social resources associated with public lands. This analysis will provide the basis for a programmatic Endangered Species Act (ESA) Section 7 consultation with the U.S. Fish and Wildlife Service (USFWS) and National Oceanic and Atmospheric Administration National Marine Fisheries Service (NOAA Fisheries) on herbicide use, and the potential impacts of herbicide use on plant and animal species of concern. [PER 1-2]

16 To maintain and improve the effectiveness of its vegetation management practices, this PER supports the BLM's intent to continue to use, and increase the use of, a variety of fire and non-fire treatment methods to reduce hazardous fuels, control unwanted vegetation, and improve habitat and resource conditions. These actions will be accomplished primarily through the proactive use of herbicides, prescribed fire, wildland fire for resource benefit, manual and mechanical methods, and biological controls that have been approved for use on public lands through previous EISs addressing vegetation control.

17 This PER provides BLM field offices with information needed to 1) assess and reduce the risk of catastrophic wildfires on public lands and in the WUI; 2) slow the spread of invasive plant species noxious weeds, and other unwanted, undesirable, or competing vegetation (unwanted vegetation); 3) improve ecosystem health by restoring fire-adapted ecosystems; identify and implement best management practices; and 4) understand cumulative effects of treatment activities. [PER 1-3]

18 **The PER does not satisfy the objectives identified in these two quotes.**

19 **The BLM fails to use the scientific information at its disposal and even fails to use or acknowledge information from some of the references used in the PEIS.** As an example to PEIS lists this reference in Chapter 6:

19 cont.

Belsky, A.J., and J.L. Gelbard. 2000. Livestock Grazing and Weed Invasions in the Arid West. Oregon Natural Desert Association. Bend, Oregon.

Yet the PEIS does not show how the information from this reference illuminated the analysis of the PEIS. Beyond a doubt this article does include information that is crucial to management of invasive plants and weeds on the public lands. Chapter 6 also lists several references from Jayne Belnap. The one most crucial to the problem of weeds does not receive any discussion I could find in the PEIS. Other references should also have been included in the material pertinent to the problem of invasive species and weeds. Perhaps one of the most crucial is Anderson, Jay, and Richard Inouye. 2001. Landscape-scale changes in plant species abundance and biodiversity of a sagebrush steppe over 45 years. Ecological Monographs 71(4):531-556. This references an actual reduction in an invasive plant in Idaho. The portion of Idaho is similar to the most of the terrain the BLM appears to plan to treat under this PEIS.

20 **Essentially the BLM needs to make a scientific analysis of the situation and base treatments on that analysis.** By so narrowly defining the purpose and need at this draft stage the BLM is precluding a realistic and scientifically valid evaluation of various treatment protocols available. It may be that it is not the intention of the BLM to make such an analysis. If this is the case the bLM should clearly state that it does not plan to take a hard look at the problem of weeds, invasive and exotic plants, the relationship of permitted activities to the problem and the most effective means of remedying the problem.

21 **The PER is full of contradictory information, sometimes on the same page.** For instance, here is a discussion of treatments in the PER:

> Chaining can be conducted during on to benefit soil stability and plant seeding, and reduce the invasion of weeds (Monsen et al. 2004). [PER 2-10]
>
> Recent studies showed improved seedling establishment on chained sites resulted in less downy brome establishment 3 years after fire in sagebrush and pinyon-juniper habitats (Ott et al. 2003). [PER 2-10]

At the conclusion of the discussion of mechanical treatments the PER states

> Unless used with follow-up herbicide treatments, mechanical treatments have limited use for noxious weed control, as the machinery tends to spread seeds and not kill roots. Mechanical vegetation control costs from $100 to $600 per acre for equipment and labor (BPA 2000). Additionally, repeated mechanical treatments are often necessary due to residual weed seed in the seed bank. [PER 2-11]

22 **It is not clear from the discussion whether mechanical treatments are effective.** After decades of using mechanical treatments the BLM should have some record of treated areas, the results of treatment and the effectiveness of treatment in reducing noxious weeds and undesirable invasive plants and restoring the potential natural community of plants to an area.

In the PER the BLM is also confused about some problems related to invasive

23 **species and plant community composition and the relationship to wildlife habitat.**

> A successful treatment program can enhance habitat for wildlife. For example, cattle and sheep feeding in the spring and early summer can thin understory forbs and grasses, reducing competition for light, nutrients, and water for desirable shrub species. The shrub species will increase their vegetative output for winter browsing by deer and other wildlife (USDI BLM 1991a) [PER 2-12]

Yet this describes the precise problem for many kinds of wildlife—the loss of adequate understory vegetation. This is the problem with degraded sage grouse habitat. This is also part of the reason fire no longer functions properly in the landscape. The proper mix of fuels is no longer available to sustain low intensity-low severity fires because of commercial livestock grazing. The BLM fails to not properly the effect of grazing on wildlife habitat and fails to note one of the causes (and thus the origin for the need to "treat") of fire suppression.

24 **The BLM is also confused about the effects of livestock grazing on exotic plants.**

> Domestic animals, such as cattle, sheep, or goats, control the top-growth of certain non-native invasive and noxious weeds which can help to weaken the plants, and reduce the reproduction potential. [PER 2-12]

25 This seems to happen magically to non-native invasive and noxious weeds but not to native plants. **The BLM never acknowledges that grazing harms all plants in the same way it harms any plants such as exotics or weeds.**

26 Many weed species are less palatable than desired vegetation, so the animals may overgraze desired vegetation rather than the weeds. [PER 2-12]

27 This is another piece of magic. Suddenly the livestock are no longer going to eat the non-native and noxiouis weeds noted just a few paragraphs earlier. In fact this is again one of the serious flaws in assuming that livestock can perform any kind weed control. Unless someone leads the cattle or sheep from plant to plant and forces it to eat the less desirable species it will not happen.

28 Another example of a failure of the BLM to identify the impacts of various treatments can be found in Table 2-4, Vegetation Treatment Methods Standard Operating Procedures and Guidelines. The contents of the columns for Biological Treatments, Mechanical Treatments, and Manual Treatments should have many more common entries. This is especially true for impacts to soil resources. For instance all three treatments should contain concerns about soil disturbances, soil compaction, and leaving plant debris behind for mulch. This also points to the absurdity of using livestock for treatment since this technique would not leave plant debris behind. Why would it be desirable to leave plant debris behind for some treatment techniques and not with others. The PER or PEIS should explain this in full.

29 Accompanying the printed version of these comments will be a CD of photographs from the Brueau region of Idaho. The photos are of treated areas along the eastern rim of the Bruneau River canyon. One set of photographs show a portion of a Wilderness Study

Area (WSA) treated with an herbicide. Across the road from the WSA is an area treated mechanically. After first entering the area the area treated with the herbicide appeared to be in much worse condition in terms of exotic and weedy species than the portion treated mechanically. Both areas were extensively invaded by exotic and weedy species. Close examination revealed both areas to be extensively degraded by non-native species. On the chemically treated area cheat grass seemed to be more prevalent than on the mechanically treated area.

30 We have also reviewed the comments submitted by the Wilderness Society and others. We concur with their comments and incorporated them by reference. We are are not sure that we concur with one small portion of those comments. The Wilderness Society recognizes that chemical treatment may be necessary in some circumstances. We are not sure that the PEIS justifies the use of chemical treatments. We certainly feel the PEIS must more fully analyze the use of chemicals and the reality of their effectiveness.

31 In particular any treatment needs to identify the means by which it will deal with the retained seed bank of exotic and weedy species.

32 We look forward to seeing how you use these comments in analyzing the problem with non-native plants. The draft PEIS needs to be fleshed out with a lot more information
33 about all of the aspects of altered fire regimes, the causes of exotic plant invasions, and realistic and effective methods of changing the current trends of increasing exotics (both in numbers and in acres affected).

Sincerely,

Wayne Y. Hoskisson

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Enclosure : CD with two photos of vegetation treatments on the east rim of the Bruneau River canyon. Both photos show a predominance of invasive, exotic species.