

Brian Ertz

Comments: DPEIS Vegetation Treatments

February 4, 2006

Brian Amme
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Dear Mr. Amme,

The Bureau of Land Management's (BLM) Vegetation Treatment Environmental Impact Statement (EIS) represents an inadequate attempt at managing invasive weeds on our public lands. The Draft PEIS hopes to address the increasing problems associated with exotic weed invasion by employing a heavy hand to nearly 6 million acres of our public lands. The primary "treatment" methods of the agency's Preferred Alternative include tripling the use of toxic herbicides, mechanical excavation, prescribed burns, and biological treatment methods throughout the West. Unfortunately, these methods represent an expensive shortsighted swat at the problem rather than the comprehensive approach represented by the Restore Native Ecosystems Alternative (RNEA). The RNEA addresses the *causes* of our invasive weed problem, namely, the disturbance of soil, and prescribes preventative measures aimed at curtailing the spread of weeds. Mechanical and biological treatments (including livestock grazing), prescribed by the BLM, disturb the soil of treated areas providing ample opportunity for invasive weeds to re-emerge.

The proposed course of action triples the use of toxic herbicides to be spread across "urban interfaces", including areas of recreation. The Draft PEIS employs use of aquatic herbicides which will be poured directly into natural sources of water including streams, ponds, and lakes. In other instances herbicides will be distributed over vast acres of land using helicopters and airplanes which non-selectively douse plants, animals, and effectually water tables, streams, lakes and ponds with chemicals.

Mass application of herbicides and soil disturbing treatments are inadequate if we are to hope for a sustainable solution which addresses the needs of our land, native species, sources of water, and our health.

Consideration of Alternatives

It is disappointing that the RNEA submitted in 2002 was cast aside as "not within the scope of the Draft PEIS". Such a statement made by Brian Amme during The DEIS public hearing in Boise Idaho, reasonably suggests the BLM's failure to comply with Section 102 of NEPA requiring federal agencies to lend appropriate support to initiatives and programs designed to anticipate and *prevent* a decline in the quality of mankind's world environment. Simply publishing the RNEA in the appendixes does not constitute consideration of the Alternative nor does it constitute "support", especially considering the lack of integration concerning the wisdom and science represented in the RNEA's call to *prevent* the *causes* of invasive species.

Brian Amme
Re: Comment on Draft Programmatic EIS
February 4, 2006
Page 2

The RNEA is a comprehensive programmatic approach that represents the best hope for curtailing the negative implications of invasive weeds while mitigating the destructive impacts that the Preferred Alternative inevitably entails. I hope for consideration that addresses the mitigation of *causes* for invasive weeds and that minimizes the anthropogenic harms associated with the herbicide and soil disturbing “treatments”.

Furthermore, the potential harms of the Preferred Alternative are not adequately considered given the Biological Assessments as well as the Risk Assessments compiled for the proposed new herbicides.

Degradates Consideration

In the Draft PEIS Appendixes, within the ERA for each proposed herbicides it is mentioned that “The potential toxicity of degradates should be considered when selecting an herbicide.” (DPEIS C-83) The very next sentence claims that “...it is beyond the scope of this risk assessment to evaluate all of the possible degradates of the various herbicide formulations of the ten herbicides.” (DPEIS C-83). Perhaps, but not one of the ERA evaluations of the proposed 10 new herbicide active ingredients consider a single degradate of proposed herbicide in risk analysis. Bromacil, diflufenzopyr, Diuron, Imazapic, Sulfometuron Methyl, Chlorsulfuron, Diquat, Fluridone, Overdrive, Tebuthiuron, let alone the herbicides approved under previous EIS programs for current levels of administration, all make reference to the same thing in section 7.3.1 of their individual Risk Assesments:

7.3.1 Degradates

The potential toxicity of degradates, also called herbicide transformation products (TPs), should be considered when selecting an herbicide. However, it is beyond the scope of this risk assessment to evaluate all of the possible degradates of the various herbicide formulations containing [choice herbicide]. Degradates may be more or less mobile and more or less toxic in the environment than their source herbicides (Battaglin et al. 2003). Differences in environmental behavior (e.g., mobility) and toxicity between parent herbicides and TPs makes prediction of potential TP impacts challenging. For example, a less toxic, but more mobile bioaccumulative, or persistent TP may have the potential to have a greater adverse impact on the environment resulting from residual concentrations in the environment. A recent study indicated that 70% of TPs had either similar or reduced toxicity to fish, daphnids, and algae than the parent pesticide. However, 4.2% of the TPs were more than an order of magnitude more toxic than the parent pesticide, with a few instances of acute toxicity values below 1 mg/L (Sinclair and Boxall 2003). No evaluation of impacts to terrestrial species was conducted in this study. The lack of data on the toxicity of degradates of [choice herbicide] represents a source of uncertainty in the risk assessment.”

This citation of scientific literature suggesting the necessity that degradates be considered when prescribing herbicide application is wise. Scientific studies undertaken by the USGS confirm the necessity for degradate consideration. How are we to know that the EPA's thresholds or RTE species' toxicity thresholds for concentration levels have not been exceeded when as studies out of the USGS indicate that frequencies of detection in ground water for a given herbicide increased multifold when its degradates are considered (Kolpin, Thurman, and Linhart 1998). The "GLEAMS" model protocol the agency uses (DPEIS C-17) to assess concentration levels of herbicides in environments associated with treatment makes no mention accounting for pre-existing concentrations associated with adjacent public or private (agricultural, adjacent agency, organic wastewater contaminants, etc.) treatment, the cumulative toxicity levels associated with these contaminants in addition to degradates resulting from proposed treatment will inflate levels of toxic chemicals beyond those accounted for in the model.

The BLM claims to be sensitive to the risks associated with use of herbicides pointing to the "acceptable" levels at which the herbicides it hopes to approve break down. However, the degradates that these herbicides break down into are sometimes as harmful if not more harmful than the parent herbicides (Kolpin, Thurman, and Linhart 1998). Given these findings regarding the effects that degradates have on both human and environmental health, Kolpin concludes that, "it is essential that degradates are included in any type of herbicide investigation" (Kolpin, Thurman, and Linhart 1998). As we can see in section 7.3.1 the BLM agrees. However, the agency states that, "it is beyond the scope of this risk assessment..." (DPEIS C-83). We've heard this before in reference to the Restore Native Ecosystems Alternative being "beyond the scope" of the Vegetation Treatment EIS. This "unknown" cannot be accepted.

Pre-existing Baseline Toxicity Level Consideration

In addition to the actual toxicity levels of treated or affected waterways being neglected in favor of superficial consideration of isolate herbicide parent compounds, the effect of synergistic and antagonistic interactions between herbicides, degradates, and previously existing contaminants in watersources were not adequately (not at all) considered in either the herbicide ERAs nor the Biological Risk Assessments submitted by the BLM. All considerations of risks associated with application of herbicides to specific species were conducted as if these species were only being exposed to a given herbicide. Studies have shown the presence of various Organic Wastewater Contaminants (OWCs) in streams across the country. Such compounds represent the fallout of pharmaceuticals, hormones, pesticides, etc. that inevitably find their way into our waterways as a result of water treatments' inability to break them down. Scientists wonder about the potential for increased toxicity of chemical *mixtures* and about the

Brian Amme
Re: Comment on Draft Programmatic EIS
February 4, 2006
Page 4

effects that such interaction may have on the health of humans and aquatic ecosystems (Kolpin et al. 2002). The adverse affects of such mixtures can be pronounced and implicate the endocrine, immune, and nervous systems of humans and animals alike (Porter et al 1999). Neurological, endocrine, immune, and developmental effects may show up only when pesticides are tested in combination (Boyd et al., 1990; Porter et al., 1993). I make this point to illustrate the inadequate consideration that has been given to the health of our ecosystems and human populations should such a drastic upsurge in the use of herbicides be allowed to take place as the Preferred Alternative prescribes. I am concerned that given the little we know about the pre-existing chemicals that are persistent in our environments (which include the lands managed by the BLM) as a result of both public and private use (agriculture, pre-existing agency treatments, joe-sixpack's overzealous landscaping techniques, waste disposal, etc.) and their effect on human and environmental health, to administer more chemicals into the soup that already exists is extremely unwise. It's akin to a pharmacist handing a patient a bottle of volatile pills without ever asking whether the patient is on any other drugs. This in conjunction with the agency's seemingly lackluster mentioning of these issues without the good-faith effort and scientific consideration that one would hope for, let alone being prescribed in the BLM's own account and by the body of scientific literature, is unfortunate and negligent. I would have hoped that the BLM would have at least taken the time to determine present levels of potentially harmful compounds in waters that may be compounded by the Preferred Alternative then incorporated those findings into their considerations of acceptable toxicity levels given the addition of the Preferred Alternative treatments to ecosystems, RTE species, and human health.

The lack of consideration for the science regarding degradates, baseline toxicity levels, the potential for increased toxicity to species given mixtures etc. constitutes a failure on the part of BLM to give adequate consideration to relevant scientific data required by NEPA (See 40 C.F.R. §§ 1500.1(b); 1502.24; *Native Ecosystems Council v. United States Forest Serv.* (9th Cir. 2005) 418 F.3d 953, 964.).

Given the BLM's most substantive argument being whether a given course of action is within or outside the scope of a given mandate (whether it be a mandate of law as is the case with NEPA as one example, or whether it be a mandate of scientific necessity as is the case with consideration of degradates) reading the Draft PEIS and speaking with representatives of the Vegetation Treatment PEIS indicates the agency's inability to fulfill the mandates of section 102 of NEPA. It seems as though representatives have spent more time crafting explanations aimed at curtailing wise and legitimate consideration of science and law than at studying and understanding the potential harmful implications to human and environmental health of this unnecessarily anthropogenic course of action.

Brian Amme
Re: Comment on Draft Programmatic EIS
February 4, 2006
Page 5

The BLM is using this Vegetation Treatment PEIS to attempt to administer the Preferred Alternative which would triple the amount of toxic herbicides to be used across urban interfaces and public lands. All considerations of the impacts of such action given the Biological Assessments and Ecological Risk Assessments are conducted as if human beings, ecosystems, and RTE species exist in clean isolate environments free of any exposure to toxicity other than the given compound which the specific BA or ERA addresses. This environment no longer exists. As the science demonstrates above, degradates persist, Organic Wastewater Contaminants are found in waters all over the country, the risks of interactions and reasonable assessments regarding levels of these contaminants was not conducted nor considered by the agency in this PEIS. The BLM has failed to give a reasonable assessment of the risks associated with the Preferred Alternative's "ambitious" tripling of herbicide treatments to include at least 10 new formulations in addition to the eight previously approved for current levels of administration.

I ask that before administration of the Preferred Alternative takes place, real science is conducted/considered and that the questions raised here and submitted by other public interested parties be fully and genuinely considered. I hope the agency gives a better-faith consideration for these comments than they did the RNEA. I would hope that the agency is able to consider the adverse effects that current management practices are having on invasive weeds proliferation and rather than just treat the symptoms of such mismanagement I hope that the *causes* are addressed and mitigated.

I appreciate the time and consideration for the comments submitted. I remain hopeful that the face of the landscapes which define our environmental heritage will survive and that our children and grandchildren might have the opportunity to experience the same ecological diversity as was bestowed upon us.

With much appreciation,

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In association with Western Watersheds Project

Brian Amme
Re: Comment on Draft Programmatic EIS
February 4, 2006

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