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This letter constitutes the comments of the Western Slope Environmental Resource Council (WSERC) regarding the Draft Environmental Analysis (EA) for the Paonia Area Fuels Treatment Project.

WSERC is a grassroots non-profit conservation organization based in Paonia, Colorado dedicated to protecting and enhancing the environment and quality of life in Delta County and Colorado's Western Slope. WSERC organized in 1977 and has over 500 members living near the project area and some of our members own property adjacent to or nearby treatment areas.

Introduction

WSERC recognizes that Congress has directed the BLM to reduce fire danger in the wildland-urban interface to protect people, natural resources and property, while restoring forests, wildlife habitat, and rangeland health. The Draft EA presents convincing evidence that the proposed treatment would reduce fire risk. The Draft EA presents a plan to apply the herbicide Plateau to prevent encroachment following tree removal by exotic cheat grass that can displace native plants and provides little forage for wildlife and domestic grazing animals.

We concur that the high risk of fire in the targeted areas makes the fuel reduction project worthwhile. We appreciate planned precautions to reduce risk from the herbicide Plateau outlined in the Draft EA, including helicopter as opposed to fixed-wing spraying, avoidance of streams and other wetlands, setbacks from residences and particularly organic agriculture, timing and doses of herbicide applications to reduce harm to beneficial plants, and measures to control spread of weed seeds during treatment activities. We applaud the BLM's plans to hand spray cheat grass and hand cut trees in sensitive areas.

Choice of treatment

Despite the planned precautions, we have concerns about aerial spraying of Plateau. The Draft EA describes Plateau as having low toxicity to non-target plants in the concentration to be applied and as being considered by the federal government to be nontoxic to animals. However, as described below, there is scientific evidence suggesting that Plateau can have toxic effects. This evidence convinces us that the BLM should make efforts to ascertain

whether some non-herbicide cheat-grass treatment could be used in at least some of the proposed treatment areas.

We are grateful that the BLM responded to public input by undertaking an experiment to determine whether treatment by intensive cattle grazing or acetic acid could be used as a substitute for herbicide, as described in the Stucker Mesa Monitoring Summary. However, the quality of the study was such that it is difficult to draw any conclusions about the effectiveness of cattle grazing or acetic acid compared with the herbicide Roundup used in the study. We believe this study needs to be redone.

Although the study purports to show that cheat-grass cover increased under intensive cattle grazing, in fact the cattle were not effectively contained on the study plot during the period when cheat grass needed to be grazed and any conclusions about the effects of cattle grazing on cheat grass are unwarranted. In June, 2010, following the Stucker Mesa study, BLM staff Ken Holsinger and Amanda Clements (author of the Stucker Mesa Monitoring Summary) accompanied WSERC members to visit the Stucker Mesa study plot and to visit properties of the Wolcotts and Bishops where intensive, timed cattle grazing over several years apparently has reduced cheat grass. Although grazing on these properties was not part of a scientific experiment, and although there are differences in altitude and aspect between the properties and the BLM land to be treated, the apparent reductions suggest that another look should be taken at cattle grazing. As part of the proposed fuel treatment project we would like the BLM to set aside some areas to study the effects of cattle grazing over several years.

We know that cattle can cause significant damage to vegetation and soils, particularly in riparian areas, so we are not necessarily advocating that cattle be used instead or in conjunction with Plateau. Goats have been used effectively to control weeds in other areas, and we appreciate that the BLM is looking into whether goats could be used for cheat-grass control as an alternative or complement to herbicide use.

Given the potential problems with large-scale herbicide use, grazing, whether by cattle or goats, should be studied as a possible alternative. We recognize that administering cattle treatments could be challenging because of the need to reconcile treatments with existing grazing allotments. We understand from conversations with Ken Holsinger that the BLM is discussing possible approaches. One of the possible benefits of cattle grazing is that ranchers in our area are willing to pay for opportunities for spring grazing (i.e. the cheat grass season), so it is possible that, if practical difficulties could be overcome, cheat grass control by cattle could be financially neutral or even earn money for the BLM.

The Stucker Mesa study also failed to convincingly ascertain whether acetic acid can control cheat grass. A single application caused dieback with subsequent regrowth. But local experience suggests that several treatments are needed for cheat grass control. We wish that reapplications had been done in successive years, as was done for Roundup. The acetic acid study should also be redone with reapplications to determine whether acetic acid does or does not control cheat grass with repeated applications.

Moreover, we wish that a study had been done on the efficacy of Plateau in an on-site study prior to the decision to use it as the primary control agent. We note that herbicides vary substantially in effectiveness on target species and that observation of effective control by Roundup is not evidence that Plateau will be effective (we recognize that Plateau may have been shown effective in other locations).

Ecological Risk from Plateau

The Draft EA states “Ecological risk assessments (ENSR 2005 and BLM 2007) indicate that Plateau, when applied as directed, both at typical and maximum rates, has no toxic effect, either acute or chronic, on terrestrial vertebrates, birds, mammals, fish or aquatic invertebrates (including pond and stream systems), or terrestrial invertebrates.” The Draft EA concludes “These data indicate that, when applied as directed, imazapic is biologically safe.”

Although we have reasonable confidence in the BLM’s ability to assess risk to non-target species, there is reason to be cautious. An herbicide Fact Sheet published in the Journal of Pesticide Reform (Fall, 2003, vol. 23 pp. 10-14) cites concerns with imazapic, the active ingredient in Plateau, including reports of anemia and muscle degeneration in experimental dogs, thyroid tumors in rats, and decreased survival in ducklings and embryonic quail. More concerning for the proposed application is the toxicity of imazapic to nontarget plants in doses as low as .007 ounce per acre. The Fact Sheet says, “Researchers at the University of Minnesota studying the effects of imazapic treatment on the establishment of five grass species and a prairie wildflower mix found that “injury [of the grass species] with imazapic was pronounced, and that use of no herbicides “resulted in higher species diversity and increased stands of wildflowers” compared to most of the imazapic treatments tested.”¹

Imazapic persists in the soil, with a half-life of more than three months.² It has potential for contaminating water as runoff. According to the Fact Sheet:

BASF Corporation, imazapic’s manufacturer, reports that it “demonstrates the properties and characteristics associated with chemicals detected in groundwater”³ and warns that Plateau “has a high potential for runoff for several months or more after application.”⁴

Before application the BLM needs to look into whether the high affinity of Plateau for runoff is a threat to aquatic species. The Draft EA describes buffers of 100 feet for perennial streams, but no setback is mentioned for ephemeral drainages. Rancher and WSERC member Steve Wolcott notes that ephemeral drainages on BLM land seasonally convey water to a pond on his property that contains leopard frogs. We ask 1) what scientific evidence verifies that a 100-foot buffer is enough, given runoff potential and the high sensitivity of some nontarget species to very low concentrations of imazapic, and 2) should this buffer also apply

¹ .Becker, R. et al. 2000. Warm season grass establishment systems in 1999 with 2000 residual year yields at Rosemount, MN. Univ. of Minnesota. Applied Weed Sci. Res. 2000 Minnesota Res. Rep.<http://appliedweeds.coafes.umn.edu>.

² Vogue, P.A., E.A. Kerle, and J.J. Jenkins. 1994.OSU Extension pesticide properties database.<http://ace.orst.edu/info/npic/ppdmove.htm>.

³ BASF Corp. 2002. Plateau herbicide label.www.cdms.net.

⁴ Ibid.

to ephemeral waters? We believe it should. We appreciate that “Gullies and untreated islands would be avoided to ensure that herbicide does not reach open water systems and or riparian vegetation communities.”

Although the studies cited in the Fact Sheet are few and apparently contradicted by findings of the Ecological Risk Assessments cited in the Draft EA⁵, they do indicate that the Draft EA’s flat statement “imazapic is biologically safe” may be overstatement. These indications of toxicity, persistence, and runoff potential make it important that the treatments follow the sensible protocols laid out in the Draft EA.

We appreciate that “Areas containing sensitive plant habitat with a good likelihood of containing sensitive plants would be avoided by herbicidal control.” Given the evidence of harm to young ducks and embryonic quail cited above, the herbicide exclusion zones around raptor nests is an excellent idea.

Given the potential for growth suppression in nontarget plants, the BLM should be sure to compare pre-treatment and post-treatment abundances of native plants, including naturally occurring as compared to artificially seeded species. In the Draft EA’s discussion of WUI-1 (Highest Priority Areas), the treatment prescription includes “Randomly install a minimum of four 1m² wildlife enclosures to monitor success of herbicide treatment and seeding following treatments.” This suggests the type of monitoring we would like to see, but should “wildlife enclosures” be “wildlife exclosures”?

One important issue not discussed in the Draft EA is subsequent management in years after treatment. Conversations with Ken Holsinger have indicated that treatment with Plateau may be necessary every few years on an ongoing basis. If this turns out to be the case, it is even more important for the BLM to carry out well-done studies on grazing, acetic acid, and other possible alternatives to herbicide use.

Many studies show that cheat-grass invasion is facilitated by heightened disturbance like repeated fires and excessive livestock grazing. We understand that one of the goals of this project is to reduce the fuel load provided by cheat grass, thereby decreasing the frequency of fires. As for livestock grazing, when carefully timed it may help reduce cheat-grass cover, but if poorly managed it could increase cheat-grass. In the final EA we would like to see analysis of how future grazing will be managed to avoid exacerbating the problem.

Sincerely,



Rob Peters, Ph.D., Executive Director

⁵ ENSR. 2005. Vegetation Treatments Programmatic EIS – Imazapic ecological risk assessment final report. Prepared for the USDI BLM, Nevada State Office, Reno, Nevada. Westford, Massachusetts. BLM. 2007. Final biological assessment for vegetation treatment on Bureau of Land Management lands in 17 western states. Prepared by BLM Nevada State Office. Reno, NV.