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EMC0347

From: Roddy V. Hardy, Rangeland Management Specialist, BLM - Salt Lake Field Office

Subject: COMMENTS on Draft Vegetation Treatments Using Herbicides on BLM lands in 17 Western States. Programmatic Environmental Impact Statement

Comments

1 The prudent use of herbicides is necessary to control unwanted vegetation that is competitive against more desirable vegetation. Due to anthropological influences natural vegetation has been altered due to invasive and noxious weeds that have been brought into the new world. Native juniper has also increased due to less perennial grass species to carry natural fire on mountains ridges. This has resulted due to the land used by livestock as well as the control of fire by man. Some of these areas are now staged for wild fire-storms.

2 To combat invasive species including noxious weeds; usually, mechanical, fire, and biological methods of control is not effective especially when such large spatial areas play such a barring on the overall management of the lands in questions. The registration procedures for herbicides go though a very through and lengthy process with final approval made by the Environmental Protection Agency. The herbicides provide very minimal impacts to fauna. Impacts may occur to non-target plant species but governmental personnel go through a training and certification program before they use the herbicides.

3 Except for small isolated stands, non-herbicidal treatments are not cost effective, environmentally sound, and effective to control the unwanted plants. The mechanical treatment can use ground disturbance which can provide a new seedbed for a new generation of the unwanted plants. Fire may not always be confined as one would want to a specific area. The herbicide use can more often be limited to a specific location and application is rapid. Often the major ingredient for treatment is water which is easy to obtain. Dry material is effectively applied to specified areas when air movement is calm. To control an outbreak of a weed without the use of herbicides is often not possible. The control with the use of herbicides has merit that can not be dismissed.

4 BLM mission is to maintain and improve the land for biodiversity and for various land uses. To help met the mission of the BLM it is necessary to use herbicides to control unwanted plant pest. There are certain plant such as leafy spurge, Dyer Woad, Canada Thistle, various knapweeds, Musk thistle, and others that if not controlled will take over natural plant communities resulting in pure stands of the noxious weeds. Some brush species such as salt cedar or snakeweed can effectively only be controlled by the use of herbicides. Young juniper plants can effectively and economically be controlled with specified herbicides.

As I have reviewed the subject Draft Vegetation Treatment EIS for the use of herbicides, I recommend that the Bureau of Land Management select Alternative B, which is the "Expand Herbicide Use and allow for use of new herbicides." This would allow that 2.4-DP, asulam, atrazine, fosamine, melfuidide and simazine be discontinued but that diflufenzophy, and imazapic would be allowed. Here in the Salt Lake Field office the use of Imazapic will greatly facilitate the control of cheatgrass so that desirable perennial grasses can more effectively be managed in lieu of stands of cheatgrass.

5

Proper use of the most effective herbicide for a specific vegetation treatment will result in overall decreased use of herbicides. Herbicides are rarely needed in a healthy environment where limited or infrequent stress is put on an intact plant community. However, the introduction of invasive plants, too frequent fire, over grazing, and drought have resulted in fragmented desirable plant communities threatened by invasive plant dominated adjacent communities. To rehabilitate and increase acres of plant communities that are resilient to invasive plants, herbicides must be an option for any integrated vegetation treatment program. A national policy that does not approve herbicide use or restricts use of ALS inhibitor herbicides or does not allow aerial application under any circumstance will NOT result in improvement or rehabilitation of infested land. Consequently, limiting or stopping use of herbicides on BLM will result in greater economic hardship for neighboring properties (federal, state and private) as wildfires, invasive plants and erosion problems know no boundaries.

6

I support the rationale as listed below for the different alternatives.

below see FL0004

Alternative A No Action Alternative

The continuous degradation of BLM land is evidence that *Alternative A* does not provide the tools needed for Hazardous fuel reduction programs, Emergency Stabilization or Rangeland Rehabilitation. BLM lands will continue to degrade at an accelerated rate if vegetation treatment continues under alternative A.
I do not support Alternative A.

Alternative B Expand Herbicide Use and Allow for Use of New Herbicides

Although greater acres are initially treated under this alternative, the newly available herbicide, diflufenzopyr, will help to reduce overall active ingredient applied for control of numerous weed species. The product imazapic will result in more resilient plant communities not in need of annual herbicide treatments. Addition of the two new aquatic products will allow rapid response to any aquatic weed problems. Loss of old herbicide chemistry such as 2,4-DP, asulam, atrazine, fosamine, melfluidide and simazine is acceptable. I strongly support the approval of Alternative B.

Alternative C No Use of Herbicides

It has been proven in operational control programs and numerous research studies for numerous weeds (deep rooted perennial weeds, large scale infestation of annual weeds), that control efforts minus herbicides are ineffective. Without the use of herbicides, BLM land will eventually become a biological desert, unable to even support livestock. This alternative puts all adjacent lands in great risk, including our National Parks, State lands, private property and Forest Service resources.
I do not support Alternative C.

Alternative D No Aerial Applications

With today's technology for improved aerial spray techniques (including booms, nozzles, GIS capability), aerial application of herbicides is more targeted, more efficient, creates less impacts/disturbance/drift, and can be more effective than ground applications. "Greater Drift" impact is minimized by use of selective herbicides and new application technology. Not all BLM land in need of a vegetation treatment has terrain conducive to ground application. Use of manual or ground application equipment to spray rough terrain can result in herbicide overlap and skips, resulting in either damage to desired vegetation or leaving invasive plants to re-populate the area. Some critical habitat areas are only accessible for vegetation treatment by air. Some invasive plants, such as large stands of saltcedar and Russian olive, are best treated by air when considering an economical and effective treatment. The EIS correctly outlines how aerial application is more cost effective than ground application. Specifically written bid specifications can help to avoid off target damage, by assuring best aerial application technology and applicators with reputations for accurate applications.

Alternative E No Use of Acetolactate Synthase-inhibiting Herbicides
Emphasis on passive restoration:

It is good practice to base vegetation management decisions on priorities, goals, scientifically proven methods and put emphasis on prevention. However, this section puts the greatest restrictions on BLM for vegetation management restorative processes. The actions called for will delay treatment due to lack of time, materials, personnel and funding. In addition, the section has many points of contradiction in relation to use of ALS herbicides, restoration with native vegetation, using best available science and using limited disturbance management practices. This alternative has several facts wrong and misses the mark on altering fire behavior. The section of greatest concern is banning use of ALS herbicides..
I strongly appose Alternative E (Management outlined in Appendix G)

APPENDIX D PROTOCOL FOR IDENTIFYING EVALUATING, AND USING NEW HERBICIDES

Overall I support this process with one change needed. "*Determining the Need for New Herbicides*" requires an additional valid reason for considering approval of a new active ingredient of "to expand availability of the number of substitute products to avoid resistance". It is understood this could be covered under "*but are not limited to:"*

NOT COVERED / ADDITION TO FINAL EIS NEEDED

PEIS is in need of a section addressing Early Detection Rapid Response (EDRR). In Appendix D the process to secure a new herbicide is 2+ years. This is unacceptable for EDRR. There MUST be an approved procedure for EDRR in regard to herbicide use.

PEIS is in need of a section addressing development of sustainable fuel breaks in the brush/grasslands in an effort to return wildfires to historical size as well as protect property, critical habitat areas and newly revegetated or rehabilitated sites. Suppression should be a last resort, prevention as fuel breaks and pro-active fuel management as vegetation treatments should be a first priority.

Alternative E No Use of Acetolactate Synthase-inhibiting Herbicides
Emphasis on passive restoration:
Expanded version

It is good practice to base vegetation management decisions on priorities, goals, scientifically proven methods and put emphasis on prevention. However, this section puts the greatest restrictions on BLM for vegetation management restorative processes. The actions called for will delay treatment due to lack of time, materials, personnel and funding. In addition, the section has many points of contradiction in relation to use of ALS herbicides, restoration with native vegetation, using best available science and using limited disturbance management practices. This alternative has several facts wrong and misses the mark on altering fire behavior. The section of greatest concern is banning use of ALS herbicides..
I strongly appose Alternative E (Management outlined in Appendix G)

7

In relation to herbicide:
All the following bullet points are excellent points to consider when choosing a vegetation treatment. Each bullet also supports the use of acetolactate synthase (ALS)-inhibiting herbicides, including the targeted herbicide sulfometuron (inferred by mentioning crop damage) and chlorsulfuron, metsulfuron, imazapyr and imazapic, and possibly future products such as imazamox. For each point the quote from the purposed action is stated followed by one or more examples where only the use of an ALS herbicide would meet the criteria.

8

- OVR 2 "*Base treatments on the best available science and knowledge"*

Best base treatment of Saltcedar is imazapyr. This includes control results compared to mechanical, fire, biological and other herbicide treatments.
Best base treatment of Whitetop is metsulfuron or imazapic. This invasive weed will never have a biological control due to similarities with crops, and because it is a deep rooted perennial, mechanical or cultural practices due not result in control. No other herbicide in the EIS will control whitetop.

9

- GOAL-PLAN 1, "*Vegetation treatments are based on assessments of . . . (3) opportunities for prevention of soil disturbance and vegetation problems;"*

For any deep-rooted perennial weed, if herbicides are not part of the program, extensive soil disturbance is needed for control. Selective herbicides that promote release of desired vegetation, both grasses and broadleaves, and control deep-rooted perennials are metsulfuron or imazapic for mustard control, imazapic for control of Dalmatian toadflax, leafy spurge, mustards, Russian knapweed, bindweed, plus others. Aerial application of imazapyr for saltcedar control causes no soil disturbance. Without this option cutstump + herbicide or root plowing + herbicide are next best control options, each causing soil disturbance and vegetation problems.

10

- PRIORITIES 1 "*Prioritize treatments shown to have a high probability of restoring natural processes and natural biotic communities over treatments without this kind of documentation."*

Imazapic, an AHAS mode-of-action herbicide, has shown to have the highest probability to restore natural processes and biotic communities for cheatgrass infested rangeland, adding in bunchgrass/shrub community release, replanting sites and fuel breaks.
Imazapyr has shown to have the highest probability to restore natural processes and biotic communities for saltcedar infested areas, adding in return of water (ponds and lakes filling, rivers running) and allowing shortest time to a productive, bio-diverse habitat, including restoring threatened and endangered species habitat.

11

- General, PRIORITIES 3 "*Vegetation . . . restoration treatments must utilize . . . 5. the least intrusive techniques available to restore ecological integrity"*

Aerial application of the selective herbicide imazapic for cheatgrass infested communities is the least intrusive technique to restore ecological integrity to rangeland. Without imazapic as a tool, control options include broadcast treatment of a non-selective herbicide glyphosate, annual or biannual disking, continuous mowing, or intensive grazing.
Aerial application of imazapyr for saltcedar is the least intrusive technique to restore ecological integrity to wetland areas. Without imazapyr, the next best option is cut stump treatments with triclopyr. Areas become severely trampled during this process and repeat treatment is often needed.

12

- RESTORATION 1 "*Use the least intrusive/extensive/risky vegetation treatment methods to enhance wildlife habitat and populations."*

Less Intrusive example under PRIORITY 3.

13

Less Extensive: ALS inhibitors have the greatest activity towards control of numerous invasive weeds, resulting in the least number of broadcast applications needed. Typically one broadcast application, coupled with favorable changes in management or other control methods, followed by spot treatment during the next 2 to 3 years (not counting new invasion) can nearly eradicate an invasive weed population. Using an inferior herbicide will result in numerous extensive treatments.

14

Less risky: ALS inhibitors are the herbicides associated with the least amount of risk, including less risk than glyphosate. Human Health and Risk Assessments show these herbicides to have the least risk toxicology. To remove ALS inhibitors forces BLM to use higher risk products. When compared to large-scale mechanical treatments, or manual labor, ALS inhibitors present less risk to the person applying the treatment. When compared to prescribed fire, ALS inhibitors present less risk to the people applying the treatment and the surrounding environment.

- RESTORATION 16 "*Only herbicides that minimize adverse effects on environmental and human health, based on knowledge of all ingredients in the formulation, shall be utilized for chemical control."*

15

ALS inhibiting herbicide are, as a group, the least toxic herbicides to the environment and humane health on the market. All ALS inhibitors are in the least toxic category of EPA. Removal of ALS inhibitors forces BLM to use a higher risk product. (Examples: imazapic versus multiple applications of picloram for leafy spurge control, multiple applications of 2,4-D or triclopyr versus imazapyr for foliar saltcedar control, multiple applications of 2,4-D or dicamba versus imazapic or metsulfuron for perennial mustard control)

RESTORATION 17 "*Prohibit use of sulfonylurea herbicides and other acetolactate synthase-inhibitng* (ALS or AHAS) *herbicides . . ."*

Following comments are in addition to the above reasons to keep ALS inhibiting herbicides. Alternative E goes against the 6th most identified key issue during scoping, *"Use newer, less toxic herbicides where feasible"*. Herbicides within the ALS inhibiting mode-of-action class are some of the least toxic herbicides available with metsulfuron methyl having the least toxic rating allowed by EPA, as discussed above. Herbicides in this family selectively control invasive plants that no other herbicides in the PEIS will control. Weeds among the top plants listed in the PEIS as responsible for degradation of BLM lands are halogeton, medushead, and *Bromus* species. All are selevtively controlled by imazapic, an ALS inhibitor.

16

Perennial pepperweed and whitetop, major western invasive weeds, typically growing in riparian and wetland areas, can only be controlled by the aquatic formulation of imazapyr. A selective ALS inhibitor, imazamox, will also be registered for this use in the next 2 years. Control for Sahara mustard, a newly identified invader, is currently being researched with ALS inhibitors as the most likely selective control alternative. Without ALS inhibitors as an option, numerous blocks of BLM land will become biological deserts. In addition, removing the option of all ALS inhibitors will result in no option for control of some weeds, no herbicide option for control of other weeds, and only one herbicide option for control of a majority of weeds. Having only one herbicide option results in no ability for resistance management. Without imazapyr only triclopyr cut stump or basal will control saltcedar. Without sulfometuron or imazapic only glyphosate is available for control of cheatgrass (already glyphosate resistant weeds). Without imazapic only picloram is available for control of leafy spurge or Dalmatian toadflax. Without the future option of imazamox only fluridone will be available for hydrilla control (already fluridone resistant hydrilla).

RESTORATION 17 *". . . due to their demonstrated ability to damage off-site native and crop species."*

This statement does not take in to consideration ALL ALS inhibitors. Native species are more tolerant to imazapic than introduced developed species. Imazapic was specially developed for establishment of native prairie and has a crop label. Chlorsulfuron and metsulfuron are also registered for use in crops and have very little activity on numerous native grasses, forbs and shrubs. Imazapyr is a known non-selective herbicide and only labeled for small-scale use in rangeland. The claim of "damage off-site . . . crop species" does not apply for a large majority of BLM land where adjacent cropland is non-existent. Claim of potential off-site damage to natives does not apply for many cases where herbicides are the chosen tool because the stand is a monoculture of invasive weeds. If off-site damage is a possibility, the process of developing the site specific management plan should eliminate herbicides that cause damage to the desired crop or native vegetation.

17

RESTORATION 12 TO 17 All these actions should be eliminated and replaced by “Follow label directions”. Some actions only state what is already on the herbicide label. Other actions assume restrictions without going through accepted methods to determine restrictions on a site-by-site basis. Example: “*Do not use broadcast herbicide treatments within 5000 ft of endangered, threatened, candidate, sensitive, or rare plants.”* EPA, USF&WS and NOAA already have a process to determine boundaries to these species that is stated on each herbicide label. To unnecessarily stay 500 ft from these species means avoiding rehabilitation of the most critical habitat area.

18

General, PRIORITIES 4. All treatment methods need to be given equal priority to assure that the soundest environmental treatment is identified and utilized. This section is correct in articulating that herbicide treatments should be used in conjunction with points 1 and 2, as all herbicide vegetation treatments should including a component of cultural, mechanical or biological control to assure the greatest long-term control possible. Endnote 3 is misleading. This list of potential herbicide hazards is only valid if the WRONG herbicide is used. If the correct herbicide is chosen for vegetation treatment there should not be any incidents of toxic effects on workers, residents, soil organisms, aquatic or avian species and minimal, short-term effect on a limited number of native plants.

19

RESTORATION 6 “*Prioritize non-chemical methods, unless shown to be ineffective, over chemical methods.”* When developing a treatment plan, all factors should be considered including budget and time to successful rehabilitation. It is unacceptable to use mechanical methods when an herbicide method will achieve the same results more cost effective and faster, without causing undue risk.

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