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

Overall Comment

1 It is important to remember the need of the PEIS: To reduce risk of catastrophic wildfire and to improve the health of the nation's forests and rangelands. The PEIS purpose is not to purposely reduce herbicide use as a tool for vegetation treatment. Proper use of the most effective herbicide for a specific vegetation treatment will result in overall decreased use of herbicides. Herbicides are not 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. This imbalance results in over utilization of the desirable plant communities, adding undue stress and further degradation of BLM land.

2 To regain a higher percentage of intact plant communities that are resistant to invasive plants, herbicides must be an option for any integrated vegetation treatment program. The use of herbicides must be coupled with appropriate grazing (time and AUMs), seeding, mechanical control methods, fire, etc. to reduce herbicide use. A national policy that does not approve herbicide use or does not allow use of several ALS inhibitor herbicides on BLM land or does not allow aerial application under any circumstance will NOT result in improvement or rehabilitation of the land. Consequently, limiting or stop 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.

Specific Comments

3 **Alternatives / Herbicide Modes of Action and Treatment Methods /** last paragraph: A drawback of herbicide use is "Weeds may develop a resistance . . ." This is more likely to happen with limited available herbicides where BLM would have no choice but to use the same herbicide repeatedly over the course of time to control a particular weed, encouraging resistance development. Several herbicide options for control of a weed species will allow BLM to modify the vegetation treatment program to avoid resistance development.

4 The drawback "Herbicides can be toxic or cause health problems . . . ." is addressed on each EPA approved herbicide label. Herbicide use according to the label greatly minimizes these risks resulting in the benefits out weighing the alternative of not treating the invasive plants or fine fuels.

Alternative A No Action Alternative

5 Hazardous fuel reduction programs for management of annual bromes in rangeland under the current EIS are ineffective, not sustainable, and poor environmental practices. Current practices of disking strips, broadcasting non-selective herbicides, removing brush, or planting greenstrip species with no control of invading annual bromes is not preventing the spread of fire. To continue with Alternative A would mean continued catastrophic wildfires with no hope of eventually decreasing wildfires to historical size of a few 100 acres.

6 Current Emergency Stabilization and Rehabilitation efforts are ineffective with annual bromes out competing expensive plantings of introduced and native grasses and forbs. Of the treatments allowed under Alternative A, none will result in a successful plantings. In my experience, at this time BLM range specialists are satisfied with a 10% desirable plant establishment rate for soil stabilization. These types of results are unacceptable to private landowners and should be unacceptable to tax payers. One reason only a 10% establishment rate is achieved is due to the lack of appropriate herbicide treatment to control the competing annual brome under Alternative A.

7 Less acres treated (as compared to Alternative B) does not mean a healthier environment. 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

8 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. In addition, the new active, imazapic, will be able to reduce the size of catastrophic fires by aiding in producing sustainable fuel breaks. The overall result will be healthier forests and rangelands with less use of herbicides on the same acres. Addition of the two aquatic products will allow rapid response to any aquatic weed problems, assuring the least amount of herbicide will be needed for invasive plant control and the site ecology will be impacted less.
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

9 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

9 alternative puts all adjacent lands in great risk, including our National Parks, private property and Forest Service resources.
I do not support Alternative C.

Alternative D No Aerial Applications

10 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.

11 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. Uneven terrain can also cause ground equipment to release too much or too little spray mix. Application rates greater than the target application rate results in more product/more dollars used than budgeted. Application of less product than the targeted rate results in a re-spray treatment needed, resulting in extra dollars to complete the project. Either scenario results in a poor economic decision in comparison to an aerial application. 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.

12 To predict the outcome of adopting this Alternative D, look to the USDA/Forest Service program and evaluate their cost and vegetation management effectiveness.
Example 1. At this time USFS has stopped all prescribed burns in Routt and Medicine Bow National Forest (NF) because the burns release annual brome rather than improving wildlife habitat and forage. Due to the rough terrain manual or ground treatments cannot be made to control the annual brome and release the desired grass.
Example 2. Invasive plants in difficult terrain go uncontrolled. Shoshone NF has a Dalmatian toadflax population in rough terrain that is so thick biological control beetles won't move into it (no need as they have enough food where the are placed), and manual and ground herbicide application is too dangerous due to the steep slope. The toadflax population has gone unchecked and is now spreading in to Wilderness and Yellowstone National Park. Example 3. Economic impact. In situations where Forest Service realizes aerial application is a must, a separate EIS for approval of aerial application costs $150,000 or more. This funding is secured at the cost to their fuel management programs, grazing programs and other valuable resource management programs.
I do not support Alternative D

TABLE 2-7

13 Social and Economic Values Bullet *"Provide public educational programs on the herbicides proposed for local use to minimize fears based on lack of information"* Along with education about the herbicide it is paramount to education the public on the need for the vegetation treatment and why the herbicide is a part of the best choice treatment.

TABLE 2-8

Overall –

14 This Table is misleading in adequately depicting comparative risks. Effects appeared to be solely based on: greater treated acres = greater adverse effects. There is no description of greater or lesser magnitude of the actual effects.
Example: Effects for Alternative D appear to assume all aerial application will result in negative impact drift. In reality, drift from aerial application can be negligible or have no adverse effects, dependent on the herbicide applied and the area impacted by the few feet of drift, if it occurs.

EFFECTS ON WILDLIFE

15 The claim that "All treatments could kill or harm wildlife and adversely impact their habitats," is false, unless it is the actual application – *tractor running over grouse or planes crashing in to herds of elk* – that is being referred to. What incidences can be sited where any of the purposed terrestrial herbicides, used according to label directions, have killed or harmed wildlife? Examples for herbicide benefits to wildlife are numerous and are mainly attributed to increasing or rehabilitating habitat.
Benefits versus adverse impacts are misleading for all alternatives.
Example: No action alternative would have greater impact than the Purposed alternative due to the number of applications that would be needed to accomplish the same vegetation management. In addition, less acres treated means greater adverse impact to those lands that are left to further degrade due to lack of tools for beneficial treatment.
The section also neglects to quantify the benefits versus adverse effects. Example: on a scale of 0 to 100, Where Wildlife Benefits for the Purposed action may be "87", adverse effects may be "4", as compared to No Action Alternative where Benefits may be "34", adverse effects "3.9".

16 EFFECTS ON LIVESTOCK, EFFECTS ON WILD HORSE AND BURROS
As with the EFFECTS ON WILDLIFE section, these sections are very poorly represented and misleading.

17 EFFECTS ON VISUAL RESOURCES
This section does not take in to account that a new herbicide in the Preferred Alternative is applied pre-emergence to the vegetation to be controlled, meaning no unsightly dead vegetation. Compared to the No Action Alternative where the vegetation treatment will need to be a post-emergence non-selective herbicide, burning, or disking, leaving an unsightly landscape to achieve lesser results. Under the No Action Alternative fewer acres may be treated, but that means hundreds of thousands of acres left in their unsightly state.

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

18 I strongly apposes Alternative E for the following multiple reasons
Comments refer to **Appendix G**
This section of the EIS has some good points about basing vegetation management decisions on priorities, goals, scientifically proven methods and emphasis on prevention. However, it is also the section with the greatest restrictions that will result in BLM vegetation management restorative processes being delayed due to lack of time, materials, personnel and funding. In addition, the section continuously contradicts itself when discussing restoration with native vegetation, using best available science and using limited disturbance management practices. This alternative also has several facts wrong and misses the mark on altering fire behavior. Specific comments follow.

II Definitions
Restoration

19 "Actions to regain ecological integrity" is better described in the context of the BLM's mission as **Rehabilitation**. It will not be possible to "restore" BLM lands to original ecological integrity for any time in the past due to soil, hydrology and climatic changes. It is more important to move forward and "rehabilitate" these lands to meet use goals to dictate desirable vegetation types.

Invasive Species
Should be changed to **Invasive Plants**. This document does not intend to address invasive animals, disease, etc. This EIS is not meant to cover vegetation management including invasive plant control.

II Definitions
Noticeably not defined is the word "**native**". Use of "native" throughout this text is unrealistic and contradictive to other presented goals. The word "native" should be removed and replaced by "desirable" to include native plants (of a broad definition) plus introduced plant species better adapted to the sites current ecological state and where historical use has shown no detrimental invasive properties.

In relation to monitoring:

20 Monitoring, to a reasonable degree, is essential to evaluate if rehabilitation efforts are resulting in progress towards land use goals. However, the amount of monitoring under III.VEGETATION TREATMENT PLANNING, Action-PLAN 5, will require excess funding that will most likely not be available. Map updates should be more realistic, required at 5 to 7 year intervals.

In relation to the use of native plant species:
REVEGETATION 1 & 2.

21 Throughout the document native vegetation is stated as a must for rehabilitation efforts, except in Section VII. REVEGETATION, where exceptions are stated. However, reason for not reseeding with natives is presumed to be due to poor native seed availability. Often the reason for not seeding with natives is due to the factors quoted throughout this appendix. Planting of natives will not always restore ecological integrity, prevent re-

21 invasion of invasive plants or address the need to making the community resilient or resistant to wildfire or invasive plants. Native vegetation is much more difficult to establish due to the lack of breeding programs to encourage successful germination rates or ease of planting fuzzy or long-awned seeds. Throughout the document it is encouraged to choose vegetation treatments that will result in the greatest prevention of vegetation problems and restoration of ecological integrity, including providing clear and significant incentives. Ecological integrity is defined as maintaining a balanced ecosystem with composition, diversity and function comparable to regional natural habitat. Research and operational results continuously show that the most successful, resilient revegetation treatments are a mix of native and introduced plants. This is not an issue of economics or available seed. All references to "native" vegetation should be replaced to infer a desirable plant composition that would include appropriate introduced and native vegetation.

REVEGETATION 3.

22 Who certifies plants or documents plants that they are non-persistent?
What is meant by "non-persistent"?
It is more important to strictly avoid use of plants that will out-compete native vegetation (become invasive) and are known to serve no habitat or beneficial niche in the community. Criteria for screening potential exotic or introduced species for revegetation use could be past history of spread beyond planted areas (recruitment), palatability and nutrition tests, and structure observations to determine if they adequately supply the needed habitat of the lost native vegetation.

REVEGETATION 4.

23 The idea of an incentive program to assure a constant supply of native seeds is an old one and it needs to be implemented by all agencies. The program needs to include the ability to cross pollinate local seed with the same species from other regions, allowing the grower to produce the healthiest crop possible, with a wide region of adaptation.

24 **In regard to restoration (should be rehabilitation):**
This Appendix never mentions to prioritize sites by those most likely to be successfully restored (rehabilitated). This should be point "a." for RESTORATION 4. Example. For a north facing slop versus a rocky south-facing slope; when limited funding is available, the north-facing slope should be rehabilitated first because there is greater likelihood of success.
RESTORATION 10 Appropriate species should not only "compete with exotic (invasive) species", but should also meet land use goals.

In relation to herbicide:

25 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.

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

26 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.

27 • 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.

28 • 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.

29 • 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.

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

Less Intrusive example under PRIORITY 3.
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

30 counting new invasion) can nearly eradicate an invasive weed population. Using an inferior herbicide will result in numerous extensive treatments.

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.

31
- 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."*

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)

32
- PLAN 4, 4. "*an amphibian assessment. Avoid herbicide use in amphibian habitats, as many amphibians are highly vulnerable to herbicide applications and drift."*

Due to the ease of formulation resulting in no need for harsh inert ingredients, no bioaccumulation, and coupling the mode-of-action (preventing formation of essential amino acids via inhibiting the ALS enzyme) with the fact that amphibians do not have an ALS enzyme, to restrict BLM from all ALS inhibiting herbicides would take away a valuable tool for improving threatened or endangered species habitat.

33 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. 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

34 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

34 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).

35 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.

36 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.

37 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.

38 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.

39 **General Appendix G Comments: In regard to "experimental" applications:**
General, PRIORITIES 3, 1. BLM should not proceed "experimentally". BLM does not have a research branch and are un-equipped to conduct experimental treatments. However, it is in BLM's interest to utilize research results from other institutions and proceed on a "small scale" to find what vegetation treatment is best for a particular site, or to partner with research institutions, utilizing BLM land to conduct experiments.
Action PRIORITIES 9. Long-term plans should emphasize "operational flexibility" and adaptation, not experimentation. BLM should utilize experiment results to determine operational procedures and if in question of best management practice for the site from the research results available, several operations could be tried on a small scale to determine best fit operation(s) for the site as a whole.

40 **General Appendix G Comments: In relation to Fire:**
These actions and goals appear to be copied from an unrelated source to BLM. Fuel management, suppression, etc. all appear related to <u>forest</u> fire with no relation to sage brush steppe, bunchgrass or annual grass fires, more typical of BLM lands. For much of the BLM lands prescribed fire is not an option for reducing fuel loads because it results in increased fuel loads by releasing annual brome species or medusahead and further degrading native vegetation that did not evolve with fire. An important missing priority is the 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 should be a first priority.

41 Action-PRIORITIES 20.
Chaining is an important tool to achieve seed soil contact and seedling protection from wind erosion. It should not be excluded under this fuels reduction treatment list.

42 Action-PRIORITIES 21.
"*goods for service*" is an important partnership tool to accomplish tasks that are under funded. It should not be excluded. Counting on only appropriated dollars for fuel reduction projects would eliminate possible partnerships that could save the tax payer dollars and will stop progress during years of no or low appropriations. No program should be solely dependant on appropriated dollars.
RESTORATION 19 "*Use prescribed fire . . . where it will not increase invasive species*." This assumes use of prescribed fire alone, not as part of an integrated program. As with herbicides, all tools, including fire should be used with other vegetation control methods to enhance results. If prescribed fire is needed to enhance a habitat area but there is threat of invasive plant release, use fire with an appropriate weed control tool.

Other

43 The following statements are contradictive. Project approval should be able to proceed even when funding is not available if the actions can be carried out through partnerships.
MONITOR 1 is a contradicts by saying base line data is needed for resource commitment, yet baseline data should not be gathered until funding (resources) are committed.

- Action-OVR 6 *"Encourage and facilitate public participation . . . ."*

44

- Action-MONITOR 1 *"Before resources are committed . . . .gather baseline data . . . "*
  "If baseline and post-treatment evaluation monies are not available, then the project shall not be approved."

45 Action-OVR 7, b. "*disincentives for activities that encourage vegetation problems and delay recovery of ecological integrity."*
This is an unrealistic action due to the large part the ecosystem plays on success or failure of a new or standard vegetation management practice. Changes in weather can cause delays in recovery as related to prescribed fire, grazing or invasive plant control treatments.
Example: For years Forest Service utilized prescribed burns to open small patches of desiccant sage brush for rejuvenation of grasses, forbs and shrubs. Change of annual stocking with livestock from annual brome infested areas has brought cheatgrass in to the area. Now prescribed burns have lead to release of cheatgrass out-competing the desired vegetation. At what point would the land manager be disincentivized for a past successful standard practice?

46 RESTORATION 7 *"Use seasonal employees to detect and treat small infestations*."
Labor for treatment of small infestations should be left to the BLM district dependant on budget and availability of temporary help, contractors, and willingness of partnership with lessee. To dictate use of seasonal employees could hurt local economy and contractors or could result in unnecessary cost.

47 It has already been proven, through research and observation, that passive restoration does not result in recovery of land degraded by invasive weeds, infested to a certain point. Example: Once cheatgrass is introduced and at a 5% level, passive restoration results in an eventual monoculture of cheatgrass that is than invaded by medusahead, Russian knapweed and/or star thistle. Active restoration measures need to be an option for ALL BLM lands.

APPENDIX D PROTOCOL FOR IDENTIFYING EVALUATING, AND USING NEW HERBICIDES

48 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

49 Not covered in any alternative or appendix of the PEIS is Early Detection Rapid Response (EDRR). In Appendix D the process to secure a new herbicide is 2+ years. This is unacceptable for EDRR. If a new invasive plant occurs on BLM land and the only control method is an herbicide not yet approved through the Appendix D process, those 2+ years to registration can result in unacceptable spread of the invasive weed to the point where EDRR is no longer an option. There MUST be a procedure approved (as

49 an added appendix to this document or other incorporated method) for EDRR in regard to herbicide use. Example: A process modeled after EPA/FIFRA Section 18, to allow temporary, targeted new herbicide use by limited BLM district(s) while the appendix D protocol is in process. Following NEPA, an EA should be sufficient for this very small-scale use that is typical of an EDRR because, due to the small area treated, there would be no significant effect.

50 An important missing priority is the 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.