



# California Indian Basketweavers Association ▲

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Brian Amme, Acting Project Manager  
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March 29, 2002

EMC0643

## **Ré: Notice of Intent to Prepare an Environmental Impact Statement for Vegetation Treatments on Public Lands Administered by the Bureau of Land Management in the Western United States**

Dear Mr. Amme,

On behalf of the California Indian basketweavers Association (CIBA), and on behalf of our sister organization the Great Basin Native Basketweavers Association, we thank you for this opportunity to provide scoping comments on the proposal to prepare an environmental impact statement (EIS) for vegetation treatment alternatives on public lands administered by the Bureau of Land Management in the 16 states western region.

CIBA is a non-profit, statewide, intertribal organization dedicated to the preservation of traditional California Indian basketweaving. In addition to providing support for basketweavers to develop and share basketweaving skills, CIBA monitors land use throughout the state in order to encourage those management practices that protect and conserve traditional Native resources. Many of the plants that Indian basketweavers use require fire for regeneration and to provide the highest quality plant weaving materials.

The Great Basin Native Basketweavers Association, based in Reno, Nevada, serves the needs of Great Basin Indian basketweavers. Although the geography of the two regions is dissimilar, we share the same concerns for the protection of our Native resources and the preservation of our cultural traditions and identity.

We also work to ensure that basketweavers are not exposed to harmful chemical pesticides in areas where basket plants grow and are gathered. We seek to ensure that native plants and animals used by basketweavers are preserved for future generations. These plants and animals are integral parts of tribal cultures, and represent living cultural resources. We advocate for alternatives to the use of herbicides for vegetation management because we believe herbicides are harmful to basketweavers and to the health of the native plant and animal communities that form the web of life.

### **Background**

The Bureau of Land Management plans to prepare an Environmental Impact Statement under the requirements of the National Environmental

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Policy Act (NEPA) in order to “identify and analyze alternatives on public lands for treating more than 6 million acres of public land a year by using Integrated Weed Management along with prescribed and managed natural fire and hazardous fuels management as part of the National Fire Management Plan and the Department of the Interior’s Cohesive Strategy. Treatment methods could include, but are not limited to, mechanical, chemical, biological, cultural (such as goats or other animals, hand pulling, etc.) and prescribed fire/fuels reduction” (from Q&A handout).

Although we specifically called and spoke with Mr. Amme regarding background information concerning this EIS, we did not receive sufficient material to provide us with a relative context for the scope of impacts that this current EIS entails. Today, on the last day for comments to be received regarding scoping for this project, the BLM website was once again up and running. The scope of herbicide proposals that this EIS will justify greatly increases our level of concern. Due to the public’s inability to review these documents prior to the comment deadline, we ask that the public scoping period for this proposal be extended.

Our specific recommendations regarding this process follow.

### **Consultation With Native Tribes and Indian Basketweaver Organizations – Executive Orders 13084 and 12898**

We ask that consultation with Native Tribes take place throughout the process of developing this EIS in accordance with Executive Order No. 13084, Consultation and Coordination With Indian Tribal Governments. This order requires federal agencies to “establish regular and meaningful consultation and collaboration with Indian tribal governments in the development of regulatory practices on Federal matters that significantly or uniquely affect their communities.”

We also ask that the BLM fully address the issues we identify in this letter in respect to environmental justice pursuant to the requirements of Executive Order No. 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. The use of herbicides to reduce non-native plant invasions or fuel loadings to reduce fire hazard may increase the human health risks to Indian people through the unique exposure routes that subsistence gathering, hunting, and fishing present.

The effects upon indigenous cultural practices must also be included in this EIS. In addition, we ask that you include in your analysis the effects to traditional plants from different vegetation management regimens. Many basket plants require regular burning in order to produce high quality materials. Increased use of prescribed burning in collaboration with indigenous people is likely to have a beneficial effect upon traditional uses of natural resources. Use of herbicides for vegetation management, however, will have a detrimental effect on native people and will impair the ability of indigenous people to maintain their traditional cultural practices.

### **Use of Prescribed Fire and Controlled Natural Fire**

We are very supportive of using prescribed fire and controlled natural fire to restore native landscapes in fire-adapted plant communities. Many plants of importance to Indian traditional cultural practices require regular burning to thrive. It is now accepted knowledge that the fire suppression policies of the last century have resulted in declining ecosystem health and an unnatural build-up of vegetation that has become a source of catastrophic fire throughout the West.

In many instances in California, the use of fire to manipulate vegetation composition should be the first choice, but because of unnatural fuel loadings, it is not prudent to burn these areas because of the risk of escaped fire. In these instances, we support the use of masticators, mowing, or other mechanical methods of fuels reduction prior to initiating a regular prescribed burn program. Mastication and mowing has many added benefits because the mulch layer that results reduces moisture loss, thereby cooling and protecting the soil layer and reducing future fire risk. Mulch also provides habitat for invertebrates, for fungi, and supports the foundation of the food web.

The EIS states that the purpose of vegetation manipulation is to “conserve and restore native vegetation.” The timing of fire must therefore be based on the ecology and needs of the habitat type and should not be based solely on economic reasons or expediency. We ask that you consult and collaborate with indigenous land use specialists who have knowledge about fire effects on the plants and wildlife using a variety of timing regimes.

Failure to mimic natural patterns of disturbance can also result in increased non-native weed invasion while increasing the stress upon native ecosystems. The BLM EIS must also recognize that the use of herbicides to take the place of natural or prescribed fire to manipulate vegetation would be out of step with the IPM mission (discussed below).

We ask that the BLM analyze the whole range of alternatives for vegetation management, including fire, spot fire, mechanical masticators, mulching, goat grazing, mowing, use of native plant seeding and planting, and biological control agents. We also ask that you incorporate traditional ecological knowledge into this planning process through consultation with Tribal people.

### **Integrated Weed Management**

The BLM states its intention to use Integrated Weed Management. According to a recent report to Congress by the General Accounting Office of the Federal government, integrated pest management is not being properly interpreted as policy throughout the nation (US GAO 2001). The report found that USDA and the EPA have misinterpreted the explicit goal of IPM, which is “reducing pesticide use”(p. 2), due to recognition of the potential harm to human health and to wildlife from pesticide use.

In 1993, the U.S. Department of Agriculture in conjunction with the EPA, endorsed the principle of Integrated Pest Management for several very explicit reasons: “...pesticides are known or suspected to have adverse effects on human health and the environment—such as increased risks for cancer, neurological disorders, and endocrine and immune system dysfunction; impaired surface and ground water; and harm to fish and wildlife...[the] original purpose of IPM [is] *reducing chemical use*.” (US GAO 2001) (emphasis added).

Secretary of Agriculture Venneman’s written response to the GAO report states: “However, the IPM definition makes it very clear that *pesticide use should be the last resort*, after prevention and avoidance practices have been exhausted and monitoring has shown that a pest problem of economic significance still exists”(p. 27) (emphasis added).

It is clear that BLM must be able to demonstrate that it has exhausted all other methods of managing vegetation to achieve desired objectives, in order to justify the use of herbicides for vegetation management. In particular, the justification of the use of herbicides to shape vegetation for fire management purposes or to create wildlife openings or bands of open space is clearly not met under USDA direction and definitions.

USDA and USDI agencies have wrongly assumed that because the definition of IPM does not reject the use of pesticides, then their use must be on equal footing with other alternatives. This EIS must clearly articulate and recognize from the outset that the use of chemicals to achieve vegetation goals must be a “last choice” option only when other options have been exhausted, and that *the purpose of IPM is to reduce the use of pesticides*—not to increase their use over millions of acres of public lands.

### **Invasive Species**

Planning efforts to reduce invasive non-native species or noxious weeds must be within the context of a landscape level planning program that identifies and ameliorates the “first causes” (i.e., unsustainable grazing levels) and sources of weed invasion (i.e., dispersal agents like cattle), and cumulative disturbance factors that facilitate and spread noxious weeds (livestock grazing, OHV use, road building, mining etc.). In addition, planting of native species by seeding or planting must always take place whenever weeds have been removed. Monitoring of the effects of control measures must be assured from the outset of any proposal. Finally, an essential priority of any plan to restore lands in this region must be to identify native landscapes found to exhibit intact native biodiversity. These intact areas are priceless reservoirs of native biodiversity and must be preserved.

### **Primary Causes of Ecosystem Transformation and Weed Invasions Must Be Addressed and Remedied**

The primary sources and causes of altered and diminished ecosystems must be analyzed at the landscape level and remedied. Root causes facilitating specific weed invasions must be identified, addressed, and remedied concomitantly with weed control proposals. Failure to remedy root causes of invasions will result in wasted efforts, since the source of the problem will not have been addressed and the problem will return—potentially with the result that worse invaders are facilitated, or targeted weeds become more aggressive or herbicide tolerant.

The BLM must not narrowly limit its focus on secondary or symptomatic effects of altered ecosystem trajectories, such as invasive species, while ignoring the primary causes or sources that facilitate and promote non-native plant invasions.

We believe that BLM must proceed cautiously and reject the idea of embracing a new land management epoch characterized by routine and repetitious applications of herbicides in order to kill invasive plant species that are not palatable to livestock. It has been well documented and it is recognized among most members of the scientific community that the introduction of livestock in unsustainable numbers around the second half of the 19<sup>th</sup> century is the key reason for the collapse of the Great Basin ecosystem, or to phrase it differently, its continuing downward spiral (Mack 1986, BLM 2000). Belsky and Gelbard have resoundingly documented the link between cattle grazing and noxious weeds in their recent literature review of the subject (Belsky and Gelbard 2000). Thus, simply eliminating invasive exotic species will not aid in the restoration of these communities unless livestock are also removed from restoration sites.

In Great Basin and Desert ecosystems, it has been clearly established that the presence of large hooved congregating cattle is a type of disturbance that is out of the range of evolutionary history for the plant communities of this region (Mack 1986). Air pollution deposition is another type of disturbance that has led to declines in native species (e.g., southern California sage chaparral), while exotic species have evolved pollution-resistant ecotypes (Westman 1990). Roads are another type of disturbance to which most native species do not adapt, unlike many exotic species (Frenkel 1970), and OHV use in fragile desert, prairie, and forest habitats is completely out of the range of natural evolutionary experience for these plant communities.

Therefore it is mandatory that plans to eradicate, control, or manage unwanted vegetation must be embedded in a broad landscape level management plan that addresses and remedies the root causes that lead to establishment of invasive species.

Native species must be widely planted in sufficient quantities to restore depleted seed banks. BLM must dedicate funding and work collaboratively with the NRCS and USDA to research and implement seed production of desirable native grasses and other species. The historic disturbance regime must be restored (e.g., historic fire regimes in fire adapted habitats). The role of keystone species (e.g., prairie dog, pronghorn antelope, and bison) must also be considered when planning restoration activities.

### **The importance of maintaining existing intact native plant communities**

Maintaining and protecting intact native plant communities must be a priority for the BLM. These intact areas should not be opened up to additional grazing, OHV, mining or other activities that would result in further loss of habitat. In *The Great Basin: Healing the Land* (BLM 2000), a list of guiding principles includes: “The Great Basin must be managed for no net loss of sagebrush habitat and salt desert shrub habitat” (p. 19). The BLM must assure the implementation of this mandate by identifying and mapping intact plant communities and removing them from management activities such as grazing, OHV, mining, and other types of unnatural disturbances. This should be a priority for the BLM.

### **Herbicides**

#### **Human health issues**

This proposal will result in an increase in the use of herbicides throughout the 16 states in the western region. We are particularly concerned that herbicides may be applied in traditional and potential gathering areas, because of the potential threats to the health of weavers and hunter-gatherers.

The use of pesticides and other hazardous substances on public lands and on private industrial timberlands in California has long been a concern to California Indian basketweavers. The use of herbicides in forestry is widespread, where they are commonly used in and around Indian reservations and communities. Indian people are impacted disproportionately by pesticide use due to their subsistence use of forest plants and animals. Studies have shown that concerns regarding potential contamination of basketweaving materials, acorns, berries, deer meat, fish, and domestic water supplies are well founded. Fish and deer consumption account for a large percentage of our diets, yet little is known about the effects of forest herbicides on people who consume large amounts of these materials.

The notice for this EIS did not give any information about the types of herbicides that will be analyzed in this document. Therefore it is not possible for us to provide detailed information outlining our concerns for specific chemicals. Nevertheless, we can provide some broad

generalizations regarding the use of herbicides in natural environments and the concerns we have for their use.

Most of the pesticides used in the U.S. today were registered for use by the EPA prior to the passage of the 1996 Food Quality Protection Act (FQPA). The act requires the EPA to re-analyze and review the potential for harmful effects from pesticide residues in our food supply and environment. Since 1990, researchers have documented that certain chemicals act as endocrine disruptors or hormone mimics (e.g., Colborn et al. 1993). The hormonal effects of many common chemicals, even those with little or no hormonal activity, have been found to increase exponentially when combined with other chemicals. In addition, it is now known that the laboratory testing methods and level of analysis used to register and approve the vast majority of pesticides did not take into consideration a variety of potential harmful effects to infants, children, and developing fetuses from chronic and cumulative exposures to poisons in the environment (NRC 1993). In addition, a 1996 amendment to the Safe Water Drinking Act and amendments to the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) require additional precautionary testing and review before pesticides are registered for use in this country. Nevertheless, while this re-analysis is ongoing, currently registered pesticides can continue to be sold. We therefore believe that a new bar has been set very high for the level of analysis that is necessary to determine with a large degree of certainty the direct, indirect, and cumulative effects to human beings and to wildlife from herbicide use at this scale (potentially 6 million acres per year).

Hormone mimicking chemicals are now known to be responsible for many reproductive disorders in the environment. Pulse doses of even low levels of pesticides at critical times when developmental windows are open can lead to permanent changes in the embryo or fetus. The herbicide risk assessment in the EIS must provide sufficient information regarding the potential effects from endocrine disruption, as well as synergistic effects, relative to human health and ecological impacts.

The chemicals registered by the EPA that will be proposed for this EIS have likely not been evaluated for their potential health risks when applied to foods and basket plants used by native people. Native people gather and use many plants for food, as well as for fiber and ceremonial use, and many native people also hunt and fish. The BLM EIS must cite current peer reviewed and independently published studies regarding endocrine disruption, synergy and inert ingredient formulations that post-date the 1996 FQPA and the scientific studies that have now been deemed inadequate. The EIS must be able to use FQPA standards to perform a risk analysis that takes into consideration the unique exposure scenarios attendant to indigenous and subsistence use of plants and wildlife, from herbicide use at this scale.

In addition, potentially significant impacts from the cumulative effects of the use of multiple herbicide formulations on both public and private land must be addressed in the EIS, as well as the impacts from historical use of herbicides and pesticides.

Finally, the increased toxicity associated with the environments of desert Tribes due to nuclear testing and other types of weapons testing and weapons detonations must be included in the full environmental analysis of cumulative effects in this EIS. We ask that the planning team consult with recognized experts in the field of environmental toxicity and impacts to indigenous people, such as Elizabeth Guillette (Guillette et al. 1998). The BLM should utilize expertise from a wide variety of sources to prepare the risk analysis for this EIS. It is not acceptable to rely on out-dated laboratory studies supplied by the manufacturers of these chemicals, or information supplied by distributors or pest control operators. The information used in the risk analysis must be current and relevant to the new information concerning neurotoxicity, carcinogenicity, reproductive toxicity, synergy, hormone disruptor effects, inert ingredients, surfactants and adjuvants, and mutagenicity. The information should rely upon a preponderance of peer reviewed and independent scientific

analysis. If there is no relevant information regarding some of these issues, then the EIS should clearly say so. A precautionary approach suggests that in the absence of data, if there are alternatives to a risky action, the less risky alternative should be selected. We recommend that this type of precautionary approach should guide the BLM towards the selection of alternatives to herbicide use.

### **Ecological Effects of Herbicide Use**

Herbicide use can result in unforeseen non-target effects and can have long-term effects upon ecosystem processes and composition. Some of these non-target, indirect, or cumulative effects include:

- Herbicides can shift vegetation composition towards weedy grasses. Use of herbicides such as 2,4-D, clopyralid, picloram, atrazine can have the effect of killing native and exotic species while allowing weedy, exotic grasses to thrive. The use of Transline (clopyralid) in many instances has the potential to cause explosive growth of medusa head, cheat grass, barbed goat grass, and other weedy exotic grasses (DiTomaso et al. 2000). We have witnessed this effect on several occasions and have been told by pesticide applicators that this is a common outcome from the use of Transline.
- Herbicide use can have adverse impacts to pollinators necessary for reproduction in native plant populations. According to Buchmann and Nabhan (1997) and Kearns et al. (1998), use of herbicides over large landscapes can deplete pollinators that may depend upon exotic species for nectar and pollen in order to survive during migrations.
- Reliance on herbicides for vegetation management can result in rapid development of herbicide-resistant ecotypes. Herbicide use also leaves a vacuum that sets the stage for further invasion by a more aggressive ecotype of the targeted weed or by a new invading species (Groves 1989). Other weedy species are also enhanced, eventually leaving a tougher, weedier landscape composed of “superweeds” (Harper 1956, Baker 1965, Frenkel 1970).
- Herbicides used on degraded sites can leave soils depleted and barren beyond recovery, making it virtually impossible for native seeds or biological crusts to become re-established. For further discussion on this topic, we refer you to Anderson et al. (1982), Belsky and Gelbard (2000), and Wooten and Renwyck (2001). In addition, the BLM must analyze the impact from the repeated use of herbicides to kill sagebrush over 15 million acres or more during the last half of the 20<sup>th</sup> century. This practice may be a significant clue to the decline and dissolution of the sagebrush-dominated communities of the region today.

It is common knowledge that herbicides have been used in high volume over the last half century in order to eliminate native sagebrush in the intermountain and high desert regions of the west and to increase grasses for livestock. Many investigators have tied this to the rapid and precipitous declines observed among the many sagebrush dependent or associated species (87 wildlife species use sagebrush for habitat and several species are obligately tied to sagebrush, including the increasingly threatened sage grouse) (McArthur 1992, Braun 1998).

A 1965 USDA handbook, *Sagebrush Control on Rangelands* states: “Getting rid of competing sagebrush and restoring a good stand of forage plants through natural or artificial seeding enables ranges to supply forage for more sheep and cattle” (USDA 1965). The report provides a clue to the past and recent history of herbicide use for sagebrush eradication: “In the past 30 years sagebrush has been controlled successfully on 5 to 6 million acres. More than half this acreage has been treated during the past five years. It is evident that this practice is gaining momentum and will be applied to many more millions of acres in the West.” Today we know that many millions of acres have been subjected to repeated herbicide applications of 2,4-D, 2,4,5-T, and other herbicides over the last half-century (Ehrlich and Ehrlich 1981).

Therefore, it is necessary to include a full report and accounting in this EIS of the actual acreage, quantity, formulations of the herbicides used, and the number of years to date that herbicides have been used in order to kill sagebrush and other native vegetation on BLM lands in the western region. We ask that the EIS include direct, indirect, and cumulative effects analysis of these types of effects resulting from herbicide use listed above.

### **Summary**

We are very concerned about the potential for significant increases in the use of toxic herbicides in the environment of Indian people throughout the 16 state region comprising the scope of this EIS. We are supportive of efforts to restore and protect native vegetation communities, and the need to restore fire to fire-adapted ecosystems. However, we are opposed to the widespread use of herbicides to reduce noxious weeds due to the many uncertainties associated with their use, particularly in regard to contamination of our gathering areas, plants, fish and wildlife. We are also opposed to the use of herbicides for killing sagebrush and for reducing fire hazards in forested regions. The EIS must contain a full analysis of the environmental justice issues attendant to the impacts to Native cultures and subsistence gathering, in collaboration and consultation with Tribal governments.

Thank you again for the opportunity to comment on this proposal. We have attached a list of other Indian basketweaver associations in the west, and we hope that you will contact these organizations as well.

Sincerely,

s/Vivian Parker  
Resource Policy Analyst  
California Indian Basketweavers Association

cc:  
Leah Brady  
Chairperson  
Great Basin Native Basketweavers Association

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