

**U.S. Department of the Interior
Bureau of Land Management
Royal Gorge Field Office
3028 E. Main Street
Canon City, CO 81212**

ENVIRONMENTAL ASSESSMENT

NUMBER: DOI-BLM-CO-2010-0075 EA

PROJECT NAME: Programmatic Vegetation Treatment Environmental Assessment (EA)

PLANNING UNIT: All planning units in Royal Gorge Field Office (RGFO)

LEGAL DESCRIPTION: All public lands in RGFO

APPLICANT: BLM

ISSUES AND CONCERNS:

Non-target vegetation valuable to wildlife and fish habitats could be adversely affected due to runoff and drift when using herbicides to control noxious weeds if used improperly. Some of these species could be listed as sensitive by the BLM, or as threatened or endangered under the Endangered Species Act.

Vegetation treatments in Wilderness Study Areas are complicated due to restrictions on the use of motorized equipment.

INTRODUCTION/BACKGROUND:

The Bureau of Land Management (BLM) Royal Gorge Field Office (RGFO) is located in Colorado and manages approximately 680,000 acres of BLM lands east of the Continental Divide to the Kansas border and from the Wyoming border south to the New Mexico border, excluding the San Luis Valley. The vegetation types managed by the RGFO are very diverse, and range from shortgrass prairie on the eastern plains to alpine tundra in the Mosquito Range.

Management and control of vegetation for resource and habitat enhancement in the RGFO is accomplished using a variety of treatment methods, including, but not limited to: use of herbicides, manual (use of hands or hand held tools) and mechanical (use of large equipment) methods, and biological controls such as insects, pathogens, fish, and domestic grazing animals. Integrated Pest Management (IPM) refers to the use of a combination of more than one vegetation treatment method. The RGFO uses an IPM approach to treating noxious weeds and other invasive plants.

In an IPM program, each management option is considered, recognizing that no one management option is a stand-alone option and that each has its own strengths and weakness. Utilizing the strengths of each allows for a more effective and environmentally sound program. When the BLM plans vegetation control management projects, all control methods should be available for use, allowing the BLM to select the one method, or the combination of methods, that optimizes vegetation control with respect to environmental concerns, effectiveness, and cost of control.

Noxious weeds are designated by federal or state law as generally possessing one or more of the following characteristics: aggressive and difficult to manage; parasitic; a carrier or host of serious insects or disease; or non-native, new, or not common to the U.S.

Invasive plants are plants that are not part of (if exotic), or are a minor component of (if native), the original plant community or communities that have the potential to become a dominant or co-dominant species on the site if their future establishment and growth are not actively controlled by management interventions, or are classified as exotic or noxious plants under state or federal law. Species that become dominant for only one to several years (e.g., short-term response to drought or wildfire) are not invasive plants.

The RGFO currently treats noxious weeds and invasive plants using IPM following procedures in the 1998 programmatic *Environmental Assessment for Management of Noxious Weeds*, which is based on the 1991 *Final Environmental Impact Statement Vegetation Treatment on BLM Lands in Thirteen Western States*. Management under this program allows the use of 20 herbicide active ingredients on BLM lands.

In 2007, the BLM completed the *Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States Programmatic Environmental Impact Statement* (PEIS), which can be accessed on the BLM's website at: www.blm.gov. The 2007 PEIS analyzed five program alternatives of vegetation management practices. These alternatives were: A) allow the BLM to continue its current use of 20 herbicide active ingredients in 14 western states (including Colorado), as authorized by earlier Environmental Impact Statements (EIS) Record of Decisions (No Action Alternative); B) allow for the use of 14 herbicide active ingredients currently used by the BLM and four new herbicide active ingredients (Preferred Alternative); C) prohibit the use of herbicides; D) prohibit the aerial application of herbicides; or E) prohibit the use of sulfonylurea and other acetolactate synthase-inhibiting herbicide active ingredients. This EA tiers to the analysis contained in the PEIS.

The Preferred Alternative of the 2007 PEIS, Expand Herbicide Use and Allow for Use of New Herbicides in 17 Western States, was approved and the Record of Decision (ROD) signed on September 29, 2007. The 2007 PEIS analyzed the potential direct, indirect, and cumulative impacts associated with the BLM's use of herbicides on the environment. The BLM determined that the risks associated with the use of herbicides under this alternative will be minor, and the benefits of herbicide use will be greater than with the other alternatives. The decision approved the use of four new herbicide active ingredients and 14 existing active ingredients. Due to lack of use by the BLM in recent years, four previously approved active ingredients were not considered in the preferred alternative and were not approved for use on BLM land.

In 2007 BLM completed the *Vegetation Treatments on Bureau of Land Management Lands in 17 Western States Programmatic Environmental Report (PER)*, which can be accessed on the BLM's website at: www.blm.gov. The PER describes the BLM vegetation treatment programs, policies, and treatment methods and evaluates the effects of non-herbicide vegetation treatments. Some of the information in this EA regarding mechanical, manual, and biological control methods is taken from and incorporated by reference to the PER.

BLMs PURPOSE AND NEED:

The purpose of the proposed action is to provide the BLM with the methods required to treat vegetation using IPM on BLM lands in RGFO and to describe the conditions and limitations that apply to their use. Ultimately, the purpose is to improve ecosystem health by controlling noxious weeds and invasive species and manipulating vegetation to benefit fish and wildlife habitat, improve riparian and wetlands areas, and improve water quality in priority watersheds.

The need for the action is treating noxious weeds and invasive plants in accordance with *Federal Land Policy and Management Act of 1976*. This act directs the BLM to manage public lands "in a manner that will protect the quality of scientific, scenic, historic, ecological, environmental, air and atmospheric, water resources, and archeological value." *Executive Order 13112, Invasive Species*, directs federal agencies to prevent the introduction of invasive species and provide for their control, and to minimize the economic, ecological, and human health impacts that invasive species cause. In order to treat noxious weeds and invasive species using the most effective methods and herbicides available to BLM, the proposed action is to adopt the preferred alternative of the PEIS (approved on September 29, 2007).

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES:

Proposed Action: Treat Noxious Weeds and Invasive Plants using IPM incorporating best management practices from PEIS and PER

Under the proposed action, RGFO would continue an IPM approach to treat noxious weeds and invasive species on all RGFO lands as needed, utilizing all 14 herbicide active ingredients analyzed and approved for use on BLM land in the 2007 PEIS. This approach is proposed because herbicides are necessary to effectively control many invasive species and noxious weeds. The proposed action is very similar to the noxious weed and invasive species management program currently practiced by the RGFO but is updated to be consistent with the approved herbicides in the PEIS. The new herbicides allowed by the PEIS are more effective at controlling invasive plants and noxious weeds than some previously used herbicides.

Herbicide active ingredients (AI) that were previously approved for use and will continue to be used by the RGFO are: 2,4-D; bromacil; chlorsulfuron; clopyralid; dicamba; diuron; glyphosate; hexazinone; imazapyr; metsulfuron methyl; picloram; sulfometuron methyl; tebuthiuron; and triclopyr. An analysis of risks to humans and non-target plants and animals was conducted before these herbicides were approved for use on BLM lands by earlier records of decisions.

Under the proposed action, the RGFO may use four additional active ingredients: imazapic; diquat; diflufenzopyr (in formulation with dicamba); and fluridone. In addition, the BLM would be able to use diflufenzopyr as a stand-alone active ingredient if it becomes registered for herbicidal use. At this point, diflufenzopyr is only labeled for use in formulation with the active ingredient dicamba, but in the future it may be available as a stand-alone herbicide.

These active ingredients and formulations could only be applied for uses, and at application rates, specified on the label directions. Some of the herbicides are selective (designed to kill only certain types of plants) and some of the herbicides are non-selective (designed to kill all plants). The RGFO would also use new active ingredients that are developed in the future if: 1) they are registered by the USEPA for use on one or more land types (e.g., rangeland, aquatic, etc.) managed by the BLM; 2) the BLM determines that the benefits of use on public lands outweigh the risks to human health and the environment; and 3) they meet evaluation criteria to ensure that the decision to use the active ingredient is supported by scientific evaluation and NEPA documentation.

All pesticide or insect applications on BLM lands require the submission of a *Pesticide Use Proposal (PUP)* or *Biological Use Proposal (BUP)*. These proposals require information on the target pests, chemicals or insects to be used, rates of application, locations of applications, and identification of any issues of concern. These proposals must be approved by Field Office Coordinator, Certified Pesticide Applicator, RGFO Field Manager, Colorado State Office PUP Coordinator, and the Colorado Deputy State Director of Natural Resources. For herbicides, only those formulations on the BLM approved list may be used. Insects must be approved for use by U.S. Department of Agriculture's (USDA) **Animal and Plant Health Inspection Service (APHIS)** for use as a biological control agent before they are released onto BLM land.

Due to their infrequent use on BLM lands, the following active ingredients were eliminated by the PEIS and are no longer approved for use on BLM land. These include: 2,4-DP; asulam; atrazine; fosamine; mefluidide; and simazine.

The method of herbicide application primarily would be spot herbicide spraying, which would selectively direct an herbicide stream directly on the plants to be treated using backpack, handheld, animal mounted and vehicle mounted handgun sprayers. Other application methods that would be used where appropriate include aerial spraying from helicopter or fixed wing aircraft, stem injection, and broadcast herbicide spraying (using vehicle mounted booms or nozzles).

When necessary, and when ground conditions are suitable to minimize disturbance, ground vehicles (such as UTV's) with sprayers would be used off of existing roads to gain access to target vegetation.

Treatments would occur within Wilderness Study Areas using methods similar to those outlined in the proposed action including spot treatment of herbicide using backpack, handheld and animal mounted sprayers. For small infestations that are readily accessible, access would be on foot or by animal (horse or other pack animal) and would not use motorized equipment. However, in instances where there is a need to treat heavy infestations, it may be necessary to use motorized ground vehicles to access the site and motorized hand tools (such as chainsaws

and motorized sprayers) to aid in treatment. This would be approved on a case by case basis following the guidelines established in BLM Manuals 8550-1 "Interim Management Policy and Guidelines for Lands Under Wilderness Review." Where applicable, follow up treatments of dense and remote infestations would be done by foot and using non-mechanized equipment.

Treatment methods are explained in detail in the Appendix A. The timing for herbicide treatments would be dependent on the species, as well as any label restrictions, which vary by herbicide.

The application method chosen depends upon the treatment objectives (removal or reduction); the accessibility; the topography, size, and land use of the treatment area; the characteristics of the target species and the desired vegetation; the location of sensitive areas and potential environmental impacts in the immediate vicinity; the anticipated costs; equipment limitations; and the meteorological and vegetative conditions of the treatment area at the time of treatment.

All herbicide application on BLM land will be performed by or under the direct supervision of a BLM certified pesticide applicator, or a professionally licensed contractor. All co-operators will be required to follow BLM Standard Operating Procedures (Appendix B) including the application of only BLM approved herbicides under a current PUP.

The proposed action would allow the RGFO to continue to use other treatment methods in conjunction with herbicides to treat vegetation using IPM. These other methods include manual, mechanical and biological treatment.

Mechanical treatment involves the use of vehicles such as wheeled tractors, crawler-type tractors, or specially designed vehicles with attached implements designed to cut, uproot, or chop existing vegetation. Mechanical methods that may be used by the BLM include chaining, root plowing, tilling and drill seeding, mowing, roller chopping and cutting, blading, grubbing, mulching and feller-bunching. These methods would be used only on large infestations of invasive species and noxious weeds. Large scale fuels reduction projects would generally be analyzed by other NEPA documentation and are not covered under this EA.

Manual treatment involves the use of hands, hand tools and hand-operated power tools to cut, clear or prune herbaceous and woody species. Treatments include cutting undesired plants above the ground level; pulling, grubbing, or digging out root systems of undesired plants to prevent sprouting and regrowth; cutting at ground level or removing competing plants around desired species; or placing mulch around desired vegetation to limit competitive growth.

Biological control involves the intentional use of domestic animals, insects, nematodes, mites, or pathogens (agents such as bacteria or fungus that can cause diseases in plants) that weaken or destroy vegetation. Biological control is used to reduce the targeted weed population to an acceptable level by stressing target plants and reducing competition with the desired plant species.

No Action- Continue Present Herbicide Use

The RGFO's weed management plan currently follows the 1998 Environmental Assessment for Management of Noxious Weeds. The 1998 EA is based on *the 1991 EIS, Vegetation Treatment*

on BLM Lands in Thirteen Western States. Under this alternative, the RGFO would continue to use 20 herbicide active ingredients approved by previous BLM RODs as part of an IPM approach to treat noxious weeds. The RGFO would not use the four new herbicide active ingredients approved in the *2007 PEIS* ROD.

PLAN CONFORMANCE REVIEW:

Name of Plan:

Date Approved:

Decision Number:

Decision Language:

Standards for Public Land Health: In January 1997, Colorado BLM approved the Standards for Public Land Health. These standards cover upland soils, riparian systems, plant and animal communities, threatened and endangered species, and water quality. Standards describe conditions needed to sustain public land health and relate to all uses of the public lands. Because a standard exists for these five categories, a finding must be made for each of them in an environmental analysis. These findings are located in specific elements listed below.