Record of Decision

Bureau of Land Management

Vegetation Treatments Using Herbicides on BLM Lands in Oregon

BLM

Oregon State Office

October 2010

BLM/OR/WA/PL-10/088+1792

As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interest of all our people. The Department also has a major responsibility for American Indian reservation communities and for people who live in Island Territories under U.S. administration.

Cover: Southeast of Richland, Oregon along the Brownlee Reservoir (Snake River), a rancher views vast stands of medusahead (a noxious weed). The area is mixed BLM/private ownership (photographer: Matt Kniesel).

Because science cannot, in any practical sense, assure safety through any testing regime, pesticide use should be approached cautiously.
(EPA scoping comment, July 28, 2008)

Our present technologies for countering invasive non-native weeds are rudimentary and few: control by biological agents, manual eradication, mechanized removal, fire, and herbicides. All have limitations; all are essential (Jake Sigg, California Native Plant Society 1999)

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Oregon State Office
P.O. Box 2965
Portland, Oregon 97208

IN REPLY REFER TO:

9015 (OR932)

October 1, 2010

Dear Reader,

The Bureau of Land Management (BLM) administers 15.7 million acres of public lands in Oregon, or about 25 percent of the State. Using a variety of tools, the BLM manages vegetation on thousands of acres per year to meet various objectives. Because of a 1984 court injunction, herbicides have not been used for any of this management with the exception of the use of four herbicides to control noxious weeds.

In 2008, the BLM began work on an Environmental Impact Statement (EIS) examining a proposal to increase the number of herbicides available, and to expand on the types of management activities for which those herbicides could be used. That analysis, building upon a similar west-wide analysis conducted by the BLM in 2007 that includes detailed herbicide Risk Assessments prepared for the BLM and/or U.S. Forest Service, indicates that additional herbicide use, limited by BLM Standard Operating Procedures and a variety of mitigation measures, presents little risk to workers, the public, or the environment. Today I am selecting a slightly modified version of Alternative 4 from that EIS.

To the four herbicides already in use, my decision makes an additional 10 herbicides available to BLM districts in Oregon west of the Cascades, and 13 herbicides east of the Cascades. In most cases, these additional herbicides are newer, can be used in lower quantities, and are more target-specific than the four currently being used. My decision also broadens the management objectives for which these herbicides may be used, to include: the control of all invasive plants; the control of plants as necessary to control pests and diseases in State-identified control areas; the control of vegetation to meet safety and maintenance objectives within rights-of-way, administrative sites, and recreation sites; and, the treatment of vegetation to achieve specific habitat goals for Federally Listed and other Special Status species.

The decision does not permit aerial application of herbicides west of the Cascades, nor herbicide use specifically for livestock forage or timber production. The decision only makes the herbicides available for additional consideration; actual projects would take place only after site-specific analysis and decision-making at the district level, tiered to the Record of Decision and the Final EIS.

I wish to thank everyone who participated in preparation of the Final EIS and encourage your continued involvement in project-level planning at the district or project level.

Sincerely,

Edward W. Shepard
State Director
Oregon/Washington

Record of Decision

Vegetation Treatments Using Herbicides on BLM Lands in Oregon

USDI – Bureau of Land Management

Responsible Official:	Oregon/Washington Bureau of Land Management State Director
Information Contact:	Todd Thompson, Restoration Coordinator Bureau of Land Management PO Box 2965, Portland, OR 97208-2965 (503) 808-6326
Lead Agency:	Bureau of Land Management, Oregon/Washington
Cooperating Agencies:	None

Signature and Date

I am selecting a slightly modified version of Alternative 4 as described in the attached Record of Decision. This decision is based on the July 2010 *Final Environmental Impact Statement for Vegetation Treatments Using Herbicides on BLM Lands in Oregon* (Final EIS or FEIS). The Final EIS and this document are programmatic. Actual projects would take place only after site-specific analysis and decision-making at the district level, tiered to this Record of Decision and the Final EIS.

Edward W. Shepard
State Director, Oregon/Washington

10/1/10
Date

Appeal Period/Effective Date: This decision is subject to a 30-day appeal period, described at the end of this Record of Decision. This decision shall become effective at the end of the 30-day administrative appeal period if no appeals are received, or upon resolution of all appeals, whichever is later. Site-specific decisions will not be signed until after the effective date of this decision.

Copies of this document are available online at http://www.blm.gov/or/plans/vegtreatmentseis/. Printed copies and the CD version can be obtained by contacting the Vegetation Treatments EIS Team at Vegetation Treatments EIS Team, PO Box 2965, Portland, OR 97208-2965, or at orvegtreatments@blm.gov.

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Acronyms

BLM	Bureau of Land Management
CFR	Code of Federal Regulations
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
FEIS	Final Environmental Impact Statement
FIFRA	Federal Insecticide, Fungicide and Rodenticide Act
FWS	U.S. Fish and Wildlife Service
IBLA	Interior Board of Land Appeals
IRAT	Individual Risk Assessment Tool
ISSSSP	Interagency Special Status / Sensitive Species Program
LASAR	Laboratory Analytical Storage and Retrieval
NMFS	National Marine Fisheries Service
NEPA	National Environmental Policy Act
$P.M._{2.5}$	Particulate Matter less than 2.5 microns diameter
PEIS	Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States Programmatic Environmental Impact Statement (2007)
RED	Reregistration Eligibility Decision
SHPO	State Historic Preservation Office
USDI	U.S. Department of the Interior
WQPMT	Water Quality Program Management Team

Summary

This Record of Decision selects a slightly modified version of Alternative 4 from the *Vegetation Management Using Herbicides on Bureau of Land Management Lands in Oregon* Final EIS (July 2010). The decision also selects additional mitigation and monitoring above those already prescribed by BLM policies and a 2007 west-wide programmatic EIS prepared by the BLM Washington Office, Rangeland Resources Division.

In addition to 2,4-D, dicamba, glyphosate, and picloram herbicides already being used by the BLM in Oregon for the control of noxious weeds, this decision makes an additional 10 herbicides available to BLM districts in Oregon west of the Cascades (clopyralid, dicamba + diflufenzopyr, diuron, fluridone, hexazinone, imazapic, imazapyr, metsulfuron methyl, sulfometuron methyl, and triclopyr), and 13 herbicides east of the Cascades (those listed for west of the Cascades plus bromacil, chlorsulfuron, and tebuthiuron). The decision also broadens the management objectives for which these herbicides may be used, to include: the control of all invasive plants; the control of plants as necessary to control pests and diseases in State-identified control areas; the control of vegetation to meet safety and maintenance objectives within rights-of-way, administrative sites, and recreation sites; and, the treatment of vegetation to achieve specific habitat goals for Federally Listed and other Special Status species.

The decision does not permit aerial application of herbicides west of the Cascades, nor herbicide use specifically for livestock forage or timber production. The decision only makes the herbicides available for additional consideration; actual projects would take place only after site-specific analysis and decision-making at the district level, tiered to the Record of Decision and the Final EIS.

Reasons for the decision are discussed under each of the eight *Purposes* in the *Management Considerations – Rationale for the Decision* section. Alternative 4 best meets the *Need* and all eight *Purposes*.

Preparation of the Final EIS began with a series of public scoping meetings held throughout Oregon in 2008. On October 2, 2009, a Draft EIS was released and public comments were accepted through January 6, 2010. Over one thousand public comment letters were received. The Final EIS, including responses to public comments, was issued on July 30, 2010.

Background

The BLM manages approximately 15.7 million acres in Oregon, or about 25 percent of the land in the State, under authority of the Federal Land and Policy Management Act and the Oregon and California Railroad and Coos Bay Wagon Road Grant Lands Act (FEIS:4). Following the mandates and authorities of these laws, the BLM and its cooperators[1] manage vegetation on thousands of acres per year to maintain or restore forests and rangelands; provide sustainable habitat for Special Status and other species of plants and animals; reduce the risk of wildland fire; provide for safe use and access to a variety of authorized developments; and, control noxious weeds and other invasive plants. For these objectives, a full range of non-herbicide treatment methods are described in existing management plans, have been analyzed in existing National Environmental Policy Act (NEPA) documents, and are currently in use to achieve vegetation management objectives (FEIS:6, 360). In the 16 other western states, the tools available for vegetation management include all or most of the 18 herbicides approved by the BLM nationally (FEIS:3).

[1]Cooperators: Leasees, permittees, and others with authorized uses or occupancy on BLM lands.

In 1984, the BLM was prohibited from using herbicides in Oregon by a U.S. District Court injunction issued in Northwest Coalition for Alternatives to Pesticides, et al. v. Block, et al. (Civ. No. 82-6273-E). The injunction stemmed from a court decision that the BLM had not conducted a worst-case analysis for the herbicides being used at that time. Following completion of an EIS addressing four herbicides to treat noxious weeds, the injunction was modified by the court in November 1987 (Civ. No. 82-6272-BU) to permit those limited uses (FEIS:3). Since 1987, herbicide use by the BLM and its cooperators has been limited to the control of Federal, State, or county-listed noxious weeds, and been limited to the herbicides 2,4-D, dicamba, glyphosate, and picloram. These herbicides are applied to about 12,000 acres of noxious weeds annually, mostly as spot treatments to individual plants (FEIS:469). However, 16 State-listed noxious weeds, and some other invasive plants like cheatgrass, are not reasonably controlled with these four herbicides or with non-herbicide treatments. Populations of these species continue to spread nearly unchecked on BLM lands (FEIS:136, 152).

Herbicide use by BLM districts in Oregon is set in the context of Integrated Vegetation Management. That approach, as described in Chapter 3 of the Final EIS, places primary weed control emphasis on prevention and education, early detection and rapid response, and using, on a case-by-case basis, the most appropriate vegetation treatment methods to accomplish the vegetation management objectives while protecting the environment. The BLM is required to "accomplish pest management through cost-effective means that pose the least risk to humans, natural and cultural resources, and the environment" and to "[e]stablish site management objectives and then choose the lowest risk, most effective approach that is feasible for each pest management project" (USDI 2007c) (FEIS:68).

Non-herbicide methods (such as chainsaws, grubbing, and prescribed fire) are used to control another 30,000 acres of invasive plants[2] annually (FEIS:78). In addition, native and other non-invasive vegetation management on BLM lands in Oregon generally exceeds 100,000 acres annually (FEIS:294). These treatments range from fuels reduction to roadside mowing of encroaching vegetation and management of competing vegetation within seed orchards. This work is conducted by BLM crews, contractors, and permit holders including power companies and public road departments (FEIS:6).

In 2007, the BLM Washington Office Rangeland Resources Division completed the *Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States Programmatic Environmental Impact Statement* (PEIS) and related Record of Decision, making 18 herbicides available for a full range of vegetation treatments in 17 western states including Oregon[3] (FEIS:3). The 18 herbicides were selected by the BLM nationally, from hundreds available, as being effective for accomplishing BLM management objectives while having the least risk to humans and non-target resources (FEIS:58). The PEIS, and the individual herbicide Risk Assessments created or compiled in support of it, provided an opportunity for Oregon to respond to a *Need* for more effective vegetation control measures, and to analyze a proposal to increase the number of herbicides available in Oregon. The BLM in Oregon could have petitioned the District Court to lift the 1984 injunction using the PEIS. Instead, a decision was made to prepare an Oregon-specific programmatic EIS, tiered to the PEIS, primarily a) to address the U.S. District Court injunction in a single programmatic document, and b) because unlike the other western states, most of the herbicides proposed for use have not been used on Oregon BLM lands for more than 25 years, if at all (FEIS:4).

The resultant July 2010 Oregon Final EIS tiers to the PEIS and incorporates it in its entirety as Appendix 1 (FEIS:455).

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[2] Including noxious weeds.

[3] Where they are also registered for use in the state.

The Decision

Alternative 4 with Dicamba + Diflufenzopyr

My decision selects Alternative 4 as described in the July 2010 *Vegetation Treatments Using Herbicides on BLM Lands in Oregon Final Environmental Impact Statement* (FEIS:28-33), with the addition of dicamba + diflufenzopyr[4] (which was analyzed in the Final EIS as part of Alternative 5). This decision makes available 14 herbicides west of the Cascades (2,4-D, clopyralid, dicamba, dicamba + diflufenzopyr, diuron, fluridone, glyphosate, hexazinone, imazapic, imazapyr, metsulfuron methyl, picloram, sulfometuron methyl, and triclopyr) and 17 herbicides east of the Cascades (bromacil, chlorsulfuron, tebuthiuron, and the 14 herbicides available west of the Cascades):

- To treat noxious weeds and other invasive plants as necessary to meet Integrated Vegetation Management objectives.
- To treat any vegetation as needed to control pests and diseases in State-identified control areas, such as Sudden Oak Death in southwest Oregon.
- To treat any vegetation to meet safety and operation objectives in administrative sites, recreation sites, and rights-of-way.
- To treat any vegetation to achieve habitat goals specified in approved Recovery Plans or other plans specifically identified as part of recovery or delisting plans, Conservation Strategies, or Conservation Agreements (collectively referred to as Conservation Strategies) for Federally Listed,[5] proposed for listing, or Bureau Sensitive species (Special Status species).

No aerial application of herbicides is permitted west of the Cascades. This decision excludes herbicide use specifically for livestock forage or timber production.

This is a programmatic decision. Actual projects will take place only after site-specific analysis and decision-making at the field level, tiered to the Final EIS and this Record of Decision.

Administrative sites, recreation sites, and rights-of-way include:

- Linear utility transmission systems, including multi-purpose corridors;
- BLM and other authorized road or railroad rights-of-way;
- Oil and gas production or gas storage agreement areas and facilities;
- Geothermal, wind, or solar energy production areas and facilities;
- Pumped storage hydro-power production areas and facilities[6];
- BLM authorized common-material or rock quarries and storage areas (although most vegetation management at such sites is for invasive plant control);
- Federal, State, local or tribal designated fire suppression equipment sites and staging areas including helispots;
- Cell phone, microwave, and other transmission sites;
- Mines;
- BLM and Forest Service seed orchards and progeny test sites;

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[4] Diflufenzopyr can only be used in formulation with dicamba on BLM lands.

[5] Federally Listed means designated as threatened or endangered under the Endangered Species Act.

[6] As of September 2010, there are no approved wind, solar, or pumped storage facilities on Oregon BLM lands, but such projects might be developed in the future. A proposed wind energy project is under consideration on the Baker Resource Area.

- Public purpose lease areas, including airstrips, schools, parks, etc.;
- Interagency special management areas (e.g., reservoirs, military training, etc.);
- Watchable Wildlife, Adventures in the Past, Wild Horse Herd Viewing, Outstanding Natural Areas and other BLM designated interpretive sites;
- BLM offices, fire stations, and other facilities;
- Developed campgrounds, picnic areas, trails, overlooks, off-highway vehicle staging or parking areas, hang-gliding areas and boat facilities; and,
- Other administrative and operational sites needed for wildfire suppression, law enforcement, search and rescue, inventory, research, resource monitoring or other authorized administrative uses.

Conservation Strategies and Conservation Agreements:
Current language at http://www.fs.fed.us/r6/sfpnw/issssp/ describes these two documents as shown here. This language could be updated, but the types of species included are not expected to change.

Conservation Strategies capture and condense all of the known information about the biology and ecology of a species including taxonomy, range, distribution, and habitat descriptions. They often identify important inventory, research, and monitoring information that may be relevant for further understanding of the species or for adaptive management purposes. They also provide information on how and when to manage a site. Strategies address how to manage the species and/or habitat to maintain viability or persistence of the species. They describe how individual sites/populations should be managed, and can also identify which sites/populations are needed to meet the viability, persistence, or conservation goal for the species. These documents typically cover either a significant portion or the entire range of the species, and may be created by one field unit, one agency, or be interagency in nature, but agreed upon by all administrative units the Strategy covers. Conservation Strategies should be coordinated with BLM State/Forest Service Regional Office planning and conservation leads.

Conservation Agreements outline procedural assurance necessary to reduce, eliminate, or mitigate specific threats. Agreements are usually Memorandums of Understanding agreed upon by Federal agencies (Forest Service, BLM, Fish and Wildlife Service (FWS), or National Marine Fisheries Service (NMFS)) and may include States and private entities. They are typically broad-scale, giving general guidance on how to manage for a species. The objective of Conservation Agreements is to identify management that will avoid a trend towards listing under the Endangered Species Act. Agreements are typically voluntary non-binding documents that may be cancelled at any time.

Herbicides Included in this Decision

The 17 selected herbicides, their typical and maximum annual application rates, types of BLM lands upon which each may be used, and whether or not aerial application is permitted east of the Cascades, are shown on Table 1 (FEIS:59-61).

Herbicides Not Included in this Decision

The selected alternative does not include diquat, an aquatic herbicide with a long half-life, short effectiveness time in water, and low to high risk categories to humans and many elements of the environment under many of the analyzed exposure scenarios. With the exception of giant salvinia, a noxious weed that does not currently exist in Oregon, one or more of the other five aquatic herbicides included in this decision will achieve effective control with less risk to the environment or human health.

The decision does not include bromacil and tebuthiuron west of the Cascades, in part because of limited need and their potential to move to nearby streams and adversely affect aquatic resources.

Table 1. The Herbicides, Application Rates, and Restrictions

Herbicide	East Side Only	Application Rate lbs/ac/yr		Types of Lands Where Use is Permitted						Aerial Spray Allowed East of Cascades[7]
		Typical	Maximum[1]	Range-land	Forest-land	Riparian/ Aquatic	Oil, gas, minerals	Rights-of-way	Recreation & Cultural	
2, 4-D		1	(1.9)	√	√	√	√	√	√	Yes
Bromacil	E	4	(12)				√	√	√	No
Chlorsulfuron	E	0.047	0.141	√			√	√	√	Restricted[2]
Clopyralid		0.35	0.5	√	√		√	√	√	Yes
Dicamba		0.3	3[8]	√			√	√	√	Yes
Diflufenzopyr + Dicamba		0.2625	0.4375	√			√	√	√	No
Diuron		6	(20)				√	√	√	No
Fluridone		0.15	(1.3)			√				Yes
Glyphosate		2	7[3]	√	√	√	√	√	√	Restricted[4]
Hexazinone		2	(4)	√	√		√	√	√	Restricted[4]
Imazapic		0.0313	0.1875	√	√		√	√	√	Yes
Imazapyr		0.45	1.25[8]	√	√	√	√	√	√	Yes
Metsulfuron methyl		0.03	0.15[8]	√	√		√	√	√	Restricted[2]
Picloram		0.35	1	√	√		√	√	√	Yes
Sulfometuron methyl		0.14	0.38		√		√	√	√	No
Tebuthiuron	E	0.5	(4)	√			√	√	√	Restricted[5]
Triclopyr		1	(10)	√	√	√	√	√	√	No[6]

[1] Parentheses denote herbicides that are limited, by PEIS Mitigation Measures, to typical application rates where feasible.
[2] Only allowed when no other means of application are possible.
[3] PEIS Mitigation Measures specify "Minimize potential risks to livestock by applying glyphosate at the typical application rate where feasible" and "Minimize potential risks to wild horses and burros by applying diuron, glyphosate, hexazinone, tebuthiuron, and triclopyr at the typical application rate, where feasible, in areas associated with wild horse and burro use."
[4] PEIS Mitigation Measures include "Where practical, limit glyphosate and hexazinone to spot applications in grazing land and wildlife habitat areas to avoid contamination of wildlife food items" and "Livestock/Wild Horses and Burros: Where feasible, limit glyphosate and hexazinone to spot applications in rangeland."
[5] Not allowed in traditional use areas.
[6] A Human Health and Safety mitigation measure selected by this Record of Decision says, "do not apply triclopyr by any broadcast method."
[7] Conservation Measures (see Attachment B) provide additional restrictions near Special Status species.
[8] Mitigation measures adopted by this Record of Decision state, "where there is a potential for herbivore [including wild horse and burro] consumption of treated vegetation, apply bromacil, dicamba, imazapyr, and metsulfuron methyl at the typical, rather than maximum, application rate to minimize risks."

Chlorsulfuron was not proposed for use west of the Cascades because most of its target weeds are found east of the Cascades. The Final EIS analysis contains no strong environmental or human health reason for its exclusion from the west side.

BLM List of Herbicide Formulations (Products) and Adjuvants

The BLM maintains a list nationally of the commercial products and formulations known to contain only active ingredients, inert ingredients, and adjuvants approved for use on BLM lands. The November 2009 list is included in the Final EIS (Appendix 9, Table A9-1) as an example (FEIS:609).

Similarly, the BLM maintains a list of nationally approved adjuvants that may be added to certain herbicides at the field level, according to herbicide label and other specifications. The November 2009 list of BLM nationally-approved adjuvants is shown in the Final EIS (Appendix 9, Table A9-3) as an example (FEIS:624).

Consistency with Labels, Laws, Regulations, and Oregon Registration

Federal, State, and local laws, BLM policy, resource management plans, and all herbicide label requirements will be adhered to. Herbicides may be used only for the objectives and type of vegetation for which they

are registered, as displayed on the herbicide label. In addition to being approved by the BLM nationally, the herbicides must be registered with the Environmental Protection Agency (EPA) and the State of Oregon. Although there are over 100 different herbicide active ingredients registered in Oregon under more than a thousand different trade names or formulations, the 17 herbicide active ingredients (herbicides) made available by this decision are limited to the formulations approved (listed for use) by the BLM Washington Office Rangeland Resources Division. Herbicides may be applied only by BLM and/or State certified pesticide applicators.[7] The BLM has a policy against using petroleum-based adjuvants (including surfactants) or other additives (FEIS:28).

Applicable Lands

This decision applies to herbicide application on public lands administered by the BLM in Oregon. It applies to the BLM and to permit holders, lessees, cooperators, or applicants for temporary or long-term use permits on these lands (FEIS:28).

Standard Operating Procedures, PEIS Mitigation Measures, and Conservation Measures

This decision adopts the Standard Operating Procedures and PEIS Mitigation Measures displayed in Appendix 2 of the Final EIS and included in this Record of Decision as Attachment A. These are default measures – site-specific analysis may indicate alternative ways to achieve the intended protections. This decision also adopts the Conservation Measures applicable to Federally Listed and other BLM Special Status species, as described in Appendix 5 of the Final EIS and included in this Record of Decision as Attachment B (FEIS:28-29). These do not apply where a No Effect determination can be made without them or where site-specific consultation identifies alternative ways to achieve appropriate protection.

Additional Mitigation Included in this Decision

The Oregon-specific analysis in the Final EIS allowed for the identification of mitigation measures in addition to those adopted by the PEIS. The following mitigation measures from the Final EIS, *with changes to the Final EIS text shown in italics*, are adopted by this decision. As with the PEIS Mitigation Measures, they are assumed to apply unless site-specific analysis determines they are not needed or that there are alternate ways to provide the intended protection.

Soil Resources

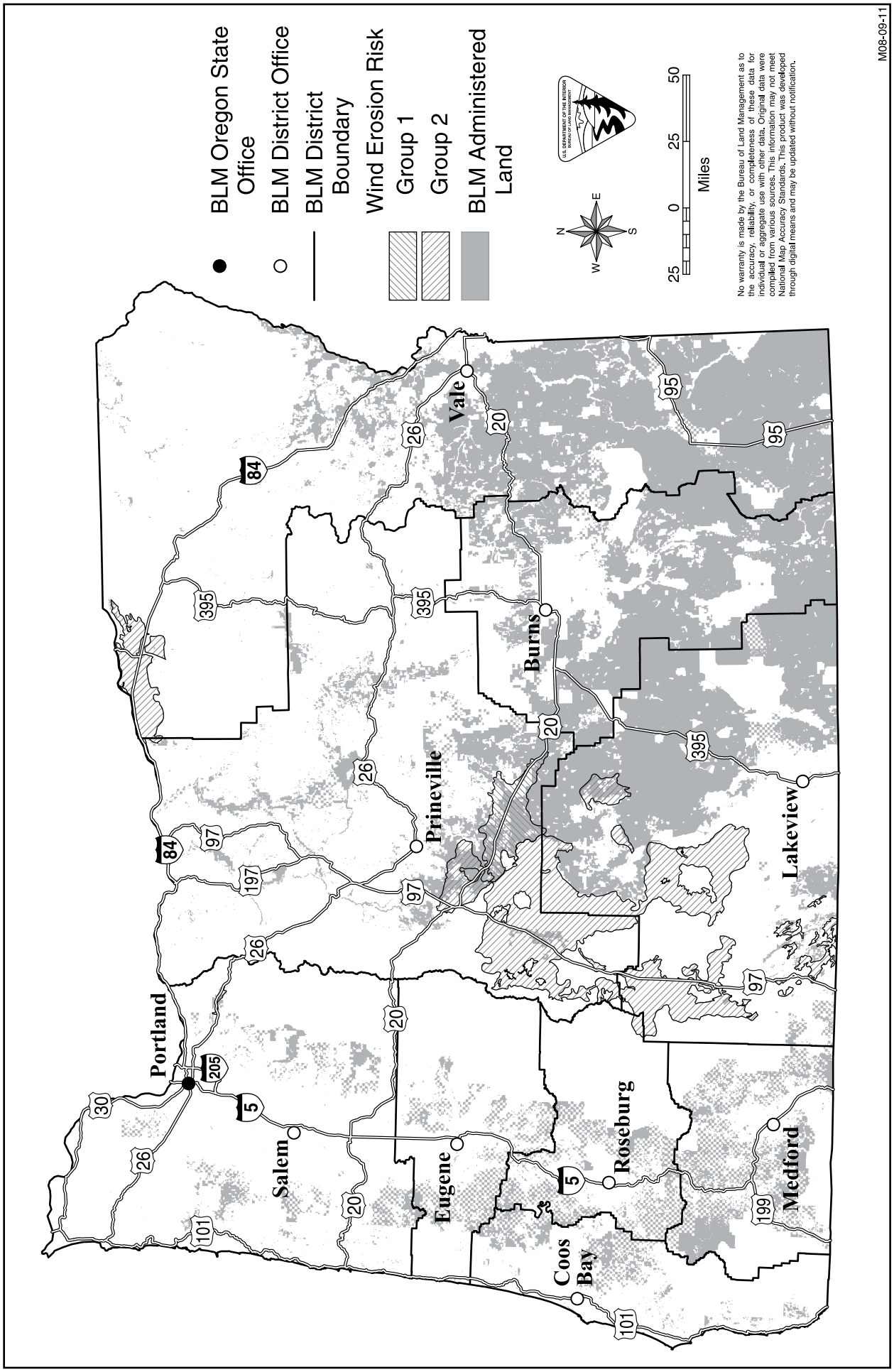
- To avoid the loss of finer-sized soil particles and avoid having herbicide-treated soils blown or washed off-site, avoid exposing large areas of wind-erosion group 1 or 2 soils (see Figure 1) *when a combination of dry soil and seasonal winds are expected*. Mitigation measures could include the use of selective herbicides to retain some vegetation on site; reseeding so cover is present before the windy season affects dry soils; staggering treatment of strips until stubble regrows enough to provide an acceptable filter strip; rescheduling treatments away from the windy season; or, other measures to prevent wind erosion on these soil groups.

Water Resources

- To protect domestic water sources, no herbicide treatments should occur within 100 feet of a well or 200 feet of a spring or known diversion used as a domestic water source unless a written waiver is granted by the user or owner.

[7] Non-motorized application of non-restricted herbicides may be done by uncertified personnel if they are working under the supervision of a certified applicator. For those maintaining their own permitted improvements, application certification requirements are governed by state law.

FIGURE 1 – WIND EROSION RISK GROUPS 1 AND 2



- Site-specific analyses for roadside treatments should specifically consider that drainage *ditches and* structures lead to streams and that normal buffer distances, herbicide selection, and treatment method selection may need to be changed accordingly, particularly where those ditches are connected to streams with Federally Listed or other Special Status species.
- Buffer intermittent stream channels when there is a prediction of rain (including thunderstorms) within 48 hours.
- Proposals to boom or aerially spray herbicides within 200 feet of streams that are within 1,000 feet upstream from a public water supply intake, or spot apply herbicides within 100 feet of streams that are within 500 feet upstream from a public water supply intake, will include coordination with the Oregon Department of Environmental Quality and the municipality to whom the intake belongs.

Fish

- Use of adjuvants with limited toxicity and low volumes is recommended for applications near aquatic habitats.

Wildlife Resources

- Impacts to wildlife from herbicide applications can be reduced by treating habitat during times when the animals are not present or are not breeding, migrating or confined to localized areas (such as crucial winter range).
- When treating native plants in areas where herbivores are likely to congregate, choose herbicides with lower risks due to ingestion. *This mitigation measure is applicable if large areas of the herbivores' feeding range would be treated, either because the treatment areas are large or the feeding area for an individual animal is small*.
- Where there is a potential for herbivore consumption of treated vegetation, apply bromacil, dicamba, imazapyr, and metsulfuron methyl at the typical, rather than maximum, application rate to minimize risks.
- Where possible, design native vegetation treatment areas to mimic natural disturbance mosaics. Patchiness is usually beneficial to most wildlife, and patchiness is usually tolerated by species that prefer contiguous habitat.
- Use of adjuvants with limited toxicity and low volumes is recommended for applications near aquatic habitats.

Livestock

- Where there is a potential for livestock consumption of treated vegetation, apply bromacil, dicamba, imazapyr, metsulfuron methyl, and tebuthiuron at the typical, rather than maximum, application rate to minimize risks to livestock.

Wild Horses and Burros

- Where there is a potential for wild horse or burro consumption of treated vegetation, apply bromacil, dicamba, imazapyr, and metsulfuron methyl at the typical, rather than maximum, application rate to minimize risks.
- Do not broadcast spray 2,4-D, clopyralid, diflufenzopyr + dicamba, diuron, glyphosate, hexazinone, picloram, or triclopyr where wild horses have unrestricted access to treated areas, or reduce risks to wild horses from these herbicides by herding wild horses out of treatment areas.
- To limit adverse effects to wild horses and burros, particularly through the contamination of food items, treatments should not exceed 15 percent of any Herd Management Area at any given time.

Social and Economic Values

- For herbicides with label-specified re-entry intervals, post information at access points to recreation sites or other designated public use or product collection areas notifying the public of planned herbicide treatments in languages known to be used by persons likely to be using the area to be treated. Posting should include the date(s) of treatment, the herbicide to be used, the date or time the posting expires, and a name and phone number of who to call for more information.
- Consider the potential for treatments to affect communities from herbicide-contaminated resources originating from the BLM, such as subsistence resources or water used downstream for human or agricultural uses.
- Coordinate with and/or notify neighboring landowners who may want to treat, or are already treating, adjacent lands.

Environmental Justice

- To the extent permitted by normal contracting authority, ensure materials safety data sheets and other informational or precautionary materials are available in languages spoken by the work crews implementing treatments. This includes but is not limited to material such as Occupational Safety and Health Administration standards along with agency, industry and manufacturers' recommendations and Human Health and Safety Standard Operating Procedures and mitigation measures or equivalent.

Human Health and Safety

- Consideration should be given to herbicides other than 2,4-D; use of 2,4-D should be limited to situations where other herbicides are ineffective or in situations in which the risks posed by 2,4-D can be mitigated.
- Do not apply triclopyr by any broadcast method.
- Do not apply bromacil, diuron, or tebuthiuron when there is a potential for picking sprayed fruit. Do not broadcast spray these herbicides onto vegetation more than a foot tall when and where public contact is likely, such as on tall grass or low brush around developed sites and other high use areas.

Mitigation Not Adopted

Of the *Potential Mitigation* listed in the Final EIS, the following measures are not adopted for the reasons stated:

Under *Water Resources*, the measure reading:

> "Where diquat applications would be used on vast enough areas that de-oxygenation from plant decomposition would cause unacceptable effects to aquatic fauna, either 1) remove treated vegetation or 2) the area would be treated in swaths over several months time to minimize de-oxygenation of the water due to plant decomposition" (FEIS:51)

is not adopted because it applies only to diquat, which is not a part of the selected alternative.

Under *Wildlife Resources*, the measure reading:

> "Herptile (amphibian and reptile) and mollusk mortality due to vegetation management can be minimized by conducting activities during the winter hibernation or estivation period. If management is to occur in occupied habitat during the active season, the following approaches should be considered to minimize impacts:
>
> - Avoid control work when herptiles and mollusks are most active;
> - Leave some habitat untreated to provide refugia: untreated portions could be treated in subsequent seasons; and,
> - Avoid treatments that would curtail herptile spring and fall migrations to and from breeding or wintering habitats" (FEIS:52)

is not adopted because herbicides often must be applied during the growing season in the spring. They are also applied early in the morning when wind speeds are none-to-low and humidity is high – the same conditions conducive to some herptile activity. This measure is not being adopted in the decision because several of the less common (thus more at risk) herptiles are Special Status or Survey and Manage species and are thus subject to the protections of those programs.

Monitoring Included in this Decision

Appendix 3 of the Final EIS identifies *Potential Monitoring* (FEIS:474-475). The additional monitoring being added by this decision is primarily short-term and addresses the use of the additional herbicides added by this decision. *Changes to the Final EIS text are shown in italics*.

Implementation Monitoring

Monitoring for Concerns Identified in the EIS - For *at least* the first *three* years of EIS implementation, a subset of the year's herbicide application projects *will* be identified using parameters identified in the EIS as having the potential for adverse effects. *The parameters will include the use of the newly added herbicides; the use of ALS-inhibitors*[8]*; applications within riparian areas including those near intermittent streams; applications on native and other non-invasive plants such as roadside maintenance and habitat improvement; and, the use of diuron on the west side. The review team should also consider issues raised in district Environmental Assessments and related Endangered Species Act consultation. Other parameters may be used* by the monitoring team and might include aerial spray within a certain distance of population centers or Federally Listed *and other Special Status* species, treatments exceeding some number of acres with herbicides having a high risk of environmental damage to non-target species (other than non-Special Status plants), treatments where PEIS Mitigation Measure buffers around *Special Status* species were reduced by more than 50 percent, aquatic treatments, riparian treatments for streams with Federally Listed fish, use of known ground-water contaminants on the west side, projects that required formal consultation, sprays within riparian management zones, broadcast sprays of over 100 contiguous acres, roadside boom sprays on native plants, use of diuron, bromacil, tebuthiuron, or 2,4-D at higher than 50 percent of the typical rate for over 100 net acres in any one thousand acre area, and so forth.

From this "higher risk" subset, a representative sample (at least three) of State Office randomly selected projects *will* be identified. *East and west of the Cascades will* be represented by at least one selection *each,* assuming there are projects that qualify. For selected projects, the full set of planning and reporting documents *will* be reviewed, as well as field implementation records, monitoring, applicator licenses, adherence to Standard Operating Procedures and appropriate mitigations measures, and all other project requirements. A questionnaire listing these review elements *will* be prepared by the *BLM Team Leader*. The review *will* be conducted by a team that includes, *if possible*, at least one non-BLM person from a Resource Advisory Committee, County Weed Board, County Board of Supervisors, or Oregon Department of Agriculture Invasive Plant or Pesticide Enforcement Division and a line officer, District Weed Coordinator, or State Office Restoration Program lead from a different district or the State Office. *The BLM Team leader should be a person who can participate in all of one (or more) season's reviews.*

[8] The five ALS-inhibitors included in the selected alternative are chlorsulfuron, imazapic, imazapyr, metsulfuron methyl, and sulfometuron methyl. They are included here because of their ability to damage non-target plants at very low doses.

Implementation Monitoring on the Avoidance and Mitigation of Adverse Impacts to Non-target Resources is, as noted in Appendix 3, already required. It is mentioned here to help identify one monitoring criterion, but districts may identify monitoring needs wherever questions of safety or effects, or other considerations, may arise. For at least five years, aerial application of ALS-inhibitors conceivably affecting private lands or Special Status species shall be monitored for drift.

Effectiveness Monitoring

Restoration Monitoring – This decision makes imazapic available statewide. The Final EIS estimates its primary use would follow wildfire or prescribed burns in, or threatened by, medusahead or other invasive annual grasses. Imazapic was desired because it would leave more native forbs than glyphosate. Because large applications will be expensive and may not occur annually at least on any one district, a detailed examination of the first two large-scale uses*, with examination results documented and circulated to other Districts, should* help ensure this new tool achieves maximum effectiveness while protecting non-target vegetation and other resources. *This monitoring should occur approximately a year after herbicide application, when full records are available and effectiveness is evident. The State Office will coordinate the examination.*

State of Oregon Information Sharing

The Oregon Department of Environmental Quality has requested that the BLM coordinate with them when sending data electronically for potential entry into the Oregon Department of Environmental Quality's Laboratory Analytical Storage and Retrieval Database (LASAR). In addition, the Oregon Department of Environmental Quality has requested copies of any monitoring reports of herbicide effectiveness and impacts on water quality and ecological conditions.

Similarly, the State of Oregon encourages the BLM to share any water quality effectiveness monitoring data collected in support of the EIS with the State of Oregon's Water Quality Pesticide Management Team (WQPMT). The multi-agency WQPMT acts to review and respond to pesticide detections in Oregon's ground and surface water in support of Oregon's Pesticide Management Plan for Water Quality Protection.

Monitoring Not Adopted

The *Five-year Examination of Weed Spread* effectiveness monitoring (FEIS:475) found in Appendix 3, *Potential Monitoring*, is not adopted because it is unlikely that the quantification proposed by the monitoring would be possible after five years given that the spread rate reduction is projected to occur over 15 years. For more information see Appendix 10, Comment and Response #292 (FEIS:753).

Alternatives Considered in Detail

The July 2010 *Vegetation Treatments Using Herbicides on BLM Lands in Oregon Final EIS* analyzed a no-herbicide Reference Analysis, a No Action Alternative (Alternative 2), and three action alternatives that met the *Need* and variously met the eight *Purposes* (issues) identified during scoping. The action alternatives, Alternatives 3, 4, and 5, provided for various numbers of herbicides for various management objectives. They all comply with the PEIS-selected alternative (FEIS:38).

Alternative 3 would have made 12 and 13 herbicides available, west and east of the Cascades respectively, for use on noxious weeds and other invasive plants (such as cheatgrass). This alternative would also have made herbicides available to treat any (including native) vegetation as necessary to control pests and diseases in State-identified control areas, such as the Sudden Oak Death quarantine area in southwestern Oregon. It was estimated that average annual herbicide use would have increased from 16,700 acres predicted under the No Action Alternative (Alternative 2) to 30,300 acres under Alternative 3 (FEIS:xxii).

Alternative 4, the Proposed Action, would have made 13 and 16 herbicides available, west and east of the Cascades respectively. In addition to the uses and estimated acres described under Alternative 3, Alternative 4 would make these herbicides available for the control of native and other non-invasive vegetation in rights-of-way, administrative sites, and recreation sites (an estimated 9,300 acres annually); and the treatment of vegetation to achieve habitat goals specified in interagency Recovery Plans or other plans specifically identified as part of recovery or delisting plans, Conservation Strategies, or Conservation Agreements for Federally Listed and other Special Status species (an estimated 5,700 acres annually)(FEIS:xx).

Alternative 5 would have made the 18 PEIS-approved herbicides available for any vegetation management objective except livestock forage or timber production. The Final EIS analysis estimates that herbicide use under this alternative would have been 4,800 acres higher than Alternative 4, with most of the increase going to habitat improvement treatments east of the Cascades (FEIS:xxii).

All of the alternatives are programmatic. The Final EIS analysis considered the cumulative effects of all BLM herbicide use in Oregon at the statewide level (FEIS:117). For the analysis, an estimate was made of the annual acres that would be treated with each herbicide. General analysis assumptions were also made about application methods. These analysis assumptions are described in Chapter 3 of the Final EIS in sufficient detail for the analysis team to understand the nature of the annual proposed program (FEIS:57-85). Effects described in Chapter 4 and contrasted in Chapter 2 are based on the estimated annual program, the information presented in the Risk Assessments, relevant literature, and other information. Effects consider herbicide use as well as the potential for herbicide spills. The analysis considers various BLM resources including species listed as threatened or endangered under the Endangered Species Act, the potential effects on air quality and global climate change, social effects, effects to tribal and subsistence resource users, implementation costs, and public and worker health and safety. The Final EIS also examines the benefits of the various alternatives in terms of a) their ability to reduce the spread of noxious weeds, b) their ability to reduce reliance on those non-herbicide methods that are less effective or have their own adverse environmental effects, and c) implementation costs.

Management Considerations - Rationale for the Decision

The *Need* and *Purposes*

This decision is based on the degree to which the selected alternative meets the *Need* and *Purposes* (FEIS:12). All of the action alternatives meet the *Need*; they would provide more effective vegetation control measures. An examination of each of the alternatives in the context of each of the eight Final EIS *Purposes* (FEIS:8-12) finds as follows:

1. Control invasive plant species to protect native ecosystems and the flora and fauna that depend on them.

The Final EIS estimates noxious weed infestations are expanding at an annual rate of 12 percent, or 144,000 acres per year, on BLM lands in Oregon (FEIS:148). Noxious weeds and other invasive plants are displacing native ecosystem components and harming all resources from wildlife to water quality to soil productivity (FEIS:47). The analysis documented in the *Noxious Weeds and Other Invasive Plants* section Chapter 4, and its supporting material in Appendix 7, estimates the selected alternative would reduce the current noxious weed spread rate by as much as half, from 12 to 6 percent per year (FEIS:138). This is expected to reduce infested acres by 2.2 million acres in 15 years when compared to the No Action Alternative (FEIS:138).

The additional herbicides made available by this decision makes the entire set of control measures more efficient and reduces retreatment needs, thereby permitting more control to be accomplished with existing staffing and funding (FEIS:136). The ability to better work cooperatively with weed control boards and neighboring landowners using newer herbicides facilitates more geographically-logical control units (FEIS:118, 125, 136, 153). The addition of imazapic, that is effective on medusahead and other invasive annual grasses, will help protect sagebrush habitats and rangelands east of the Cascades, and Oak Savannah habitats west of the Cascades (FEIS:255). The additional herbicides will also benefit permit holders currently required to control State A and T-list weeds within their permit area (FEIS:316), improving weed control in these areas.

Roadside safety and maintenance treatments using herbicides conducted under Alternative 4 will, it is estimated, incidentally control undetected noxious weed populations. Using herbicides will reduce the amount of plant material being carried along roads or other rights-of-way by mowing and scraping equipment; ground disturbance will be reduced thus slowing disturbance-related reinvasion; and, undetected noxious weeds will be controlled where they are most susceptible to being transported to other locations by vehicles, recreation equipment, and other vectors (FEIS:136-137). The additional one percent reduction in weed spread attributed to these treatments will result in 300,000 fewer acres infested with noxious weeds in 15 years (when compared to the five percent reduction estimated for Alternative 3) and is one of the reasons for selecting Alternative 4 over Alternative 3.

With a reduction of weed spread from 12 to 7 percent, this *Purpose* would be partially met by Alternative 3. However, the additional noxious weed control that would be achieved by roadside maintenance treatments under Alternative 4 (and thus 5) would lower weed spread to 6 percent, meeting this *Purpose*.

2. Protect the safety and function of BLM and other authorized infrastructures by controlling encroaching native and other non-invasive vegetation.

The selection of Alternative 4 will help facilitate the difficult work of road departments and utility companies. County and State road departments, as well as utility companies, have spray equipment, herbicides, personnel, and training to maintain rights-of-way against vegetation encroaching onto improvements including pavement edges, creating a fire hazard next to the developments, or blocking road visibility and pullouts. They are using this equipment along rights-of-way on other ownerships (FEIS:313-314). East of the Cascades and in southern Oregon, long-term (persistent) treatments are important for keeping fire prone grasses out of developments to reduce damage from wildfires. West of the Cascades, woody vegetation encroaches on forest roads quickly. Herbicides can selectively control this vegetation while leaving grasses and other soil-protecting vegetation along the roadside (FEIS:316). Herbicides that pose little threat to water and fish are available for this purpose, and a mitigation measure included in this decision will ensure project planners consider and avoid roadside ditches that connect to streams. Making herbicides available for this work will improve efficiency and user safety.

Some level of herbicide use for noxious weed control already takes place in recreation and other developed sites because noxious weeds can be so easily spread from such sites (FEIS:306). The addition of herbicides to control pests like poison oak, or better control woody plants to protect buildings and other developments, would result in an increase in herbicide use in public use areas (FEIS:310), but closures, posting, and other label and Standard Operating Procedure requirements (as well as continued use of non-herbicide methods) would continue to protect site users from exposure (FEIS:305).

This *Purpose* is currently being met using non-herbicide methods and that would continue to be the case under Alternative 3. Alternatives 4 and 5 would meet this *Purpose* while decreasing costs (FEIS:342), freeing funds for additional maintenance or other purposes.

3. *Manage native vegetation to provide sustainable habitats for wildlife, fish, and native plants, particularly those included in the Special Status Species Program.*

Sagebrush steppe habitat has been identified as one of the most endangered habitats in the western United States. Major threats include invasive annual grasses, changed fire cycles, and encroaching juniper. Threatened habitats include sage grouse nesting areas (FEIS:125, 243). Greater sage grouse is a candidate species for Federal listing, and is a BLM Special Status species for which habitat protection and improvement is a high priority (FEIS:493). Similarly, western juniper has expanded more than three-fold from natural levels, significantly reducing stream flows and eliminating native vegetation (FEIS:125, 203). Control using herbicides usually focuses on very young trees, less than a few feet high. Such herbicide treatments are prohibited under Alternatives 2 and 3, because juniper is a native species.

Habitat improvement treatments of native and other non-invasive plants under Alternative 4 are limited to treatments identified in, or clearly in support of, Conservation Strategies for Special Status species. Conservation Strategies are defined on the Interagency Special Status and Sensitive Species Program (ISSSSP) website. These formal strategies, agreements, or delisting documents are normally developed by interagency teams of biologists and others, or in the case of de-listing documents, by the FWS or the NMFS. They indicate a pressing need and broad consensus about habitat improvement needs (FEIS:31-32).

While better control of invasive plants under Alternative 3 would help sustain habitats for Special Status species and partially meet this *Purpose*, this particular *Purpose* is only completely met with the ability to better manage native vegetation under Alternatives 4 and 5.

4. *Manage vegetation to reduce the risk that large-scale high-intensity fires will unacceptably damage resources and human developments.*

The inclusion of imazapic under all of the action alternatives provides the only significant fuel reduction opportunity identified in the analysis (FEIS:274, 277). Cheatgrass and other invasive annual grasses occupy more than 5 million acres in Oregon and encroach into the Wildland Urban Interface around certain communities like Medford and Burns. Frequent fires in these grasses are also the major threat to sensitive sagebrush habitats (FEIS:274). The ability to selectively spray these grasses near communities and in fuelbreak strips to slow wildfires will help achieve National Fire Plan objectives of protecting rural communities and listed species' habitats (FEIS:278).

No other major fuels condition was identified for which herbicides would be regularly employed in Oregon. Some noxious weeds like gorse are extremely fire prone, but many of these already could be reasonably controlled under the No Action Alternative. Alternative 3 meets this *Purpose*. Meeting this *Purpose* could be slightly

improved by the roadside treatments under Alternative 4, and only rarely improved by the opportunity to treat some future native fuels under Alternative 5 (FEIS:278).

5. Cooperatively control invasive plants so they do not infest or re-infest adjacent non-BLM lands.

During scoping, county governments and others expressed frustration with the BLM's inability to use newer herbicides and participate in joint weed control efforts. Seventy-one percent of Malheur County is administered by the BLM, with much of the remainder owned by ranchers. Medusahead, cheatgrass, and other noxious weeds and invasive plants have been spreading relatively uncontrolled onto private lands as a result of the BLM's lack of effective herbicide treatment methods, frustrating private land control efforts (FEIS:322). Full participation in geographically-logical control efforts has been frustrated by the BLM's current herbicide use limitations (FEIS:139).

This *Purpose* is met with Alternative 3, and thus 4 and 5 as well. Alternative 3 provides most of the herbicides currently used by cooperators for invasive plant control.[9]

6. Prevent herbicide control treatments from having unacceptable adverse effects to applicators and the public, to desirable flora and fauna, and to soil, air, and water.

The Final EIS analysis indicates there is little likelihood of significant adverse environmental or human health effects occurring from implementation of this decision (FEIS:41, 93, and others).

Much of the discussion in the Final EIS focuses on the *risk* categories identified in the BLM and Forest Service Risk Assessments. For example, the *Comparison of the Effects of the Alternatives* section in Chapter 2, Tables 2-5 and 2-6, compares the alternatives with respect to these *risk* parameters (FEIS:42-49). Risk categories quantify the likelihood of an adverse effect to an organism resulting from specific exposure scenarios (FEIS:86-91). However, the BLM has a long history with herbicides and, as a result, numerous handbooks and other policy materials have been developed governing the use of these herbicides. For the PEIS, direction from these policies was gathered and labeled as Standard Operating Procedures (see Attachment A to this Record of Decision). While the *risks* listed in Final EIS Tables 3-12 through 3-21 (and discussed in Chapter 4) are for exposure scenarios described in the Risk Assessments, *effects* conclusions for each resource described in the PEIS and the Oregon Final EIS are predicated on application of the Standard Operating Procedures (FEIS:93).

PEIS-identified adverse effects each resulted in the identification of one or more mitigation measures, all of which were adopted by the Record of Decision for the PEIS. Like the Standard Operating Procedures, the PEIS Mitigation Measures all apply to the selected alternative and are included in Attachment A of this Record of Decision. Since all adverse effects identified by the PEIS were mitigated where practicable, there should be few or no adverse effects expected from implementation of this decision. This is confirmed by the effects examination in Chapter 4 of the Final EIS. Most of the "effects" discussions in the Final EIS for the use of herbicides are, in reality, discussions of *risks* identified by the Risk Assessments before the Standard Operating Procedures and PEIS Mitigation Measures are applied (FEIS:93).

The *risks* associated with the use of herbicides are expressed as zero, low, moderate, and high *risk*. These are quantified terms, summarized on Final EIS Tables 3-12 through 3-21 (FEIS:94-104). Where Risk Assessment

[9] Cooperators have already indicated a frustration that the Final EIS, and thus the selected alternative, does not include aminopyralid (e.g. Milestone®). The EIS did not examine this herbicide because it was not included in the PEIS to which this Final EIS tiers, no Risk Assessment has been prepared, and it is not on the national list of BLM-approved herbicides. It is being considered for future BLM use under the process described in Appendix 4, but no assumption is made in this Record of Decision about the future use of this herbicide.

scenarios resulted in a moderate or high risk, that risk is reported in Chapter 4 as a *potential adverse effect*, or *risk*. The estimated acres to be treated with moderate and high risk herbicides are summarized for human health and for each resource on Final EIS Table 2-6. In every case except insects, the acres to be treated with moderate or high risk herbicides are lower under the selected alternative than under the No Action Alternative, in spite of a threefold increase in the total number of acres to be treated (FEIS:48-49).

It is important to understand, however, that such risks almost always generated corresponding PEIS Mitigation Measures during the PEIS process (if there were not already Standard Operating Procedures designed to avoid the adverse effects). Therefore, most or all of the *potential* for adverse effects (or *risks*) discussed in Chapter 4 of the Final EIS are followed by the conclusion that implementation of the Standard Operating Procedures, PEIS Mitigation Measures, and site-specific analysis (during which the Risk Assessments or Individual Risk Assessment Tools will be specifically consulted) should make the likelihood of actual adverse effects negligible, *de minimus*, or at worst "minimized." Additional Conservation Measures (see Attachment B) apply to Federally Listed and other Special Status species and critical habitat (FEIS:93).

Where the Oregon Final EIS identified a potential for adverse effects in spite of the Standard Operating Procedures and PEIS Mitigation Measures (because of additional detail about the proposed action and an examination of resource effects at a different scale than the PEIS), additional *Potential Mitigation* was identified (FEIS:51-53). This decision selects almost all of those additional measures.

The Final EIS analysis variously raises the potential for adverse effects, or risks. The two most prominently identified environmental risks are:

- The use of glyphosate with POEA is a hazard to fish and amphibians (FEIS:228, 246). A PEIS Mitigation Measure requires avoiding or minimizing POEA to protect amphibians (FEIS:461). Only low or non-POEA aquatic formulations are used near water (FEIS:46).
- The ALS-inhibitors can damage non-target plants at very low doses (FEIS:145, 156). Buffers of 900 to 1,500 feet are prescribed for boom and aerial sprays of ALS-inhibitors near Special Status plants (FEIS:466). One of the additional monitoring requirements added by this decision requires that for at least five years, aerial application of ALS-inhibitors conceivably affecting private lands or Special Status species would be monitored for drift.

One factor that will reduce risk is simply the number of additional herbicides available. Additional herbicides provide project planners with more options for selecting an herbicide that will accomplish the treatment objective while protecting the specific non-target resources at the site (FEIS:11, 41).

Adverse effects from weed spread are quantifiable and increasing (FEIS:133-134, 594-602). Virtually all of the resource effects sections conclude that slowing weed spread would prevent more adverse effects than would occur with the corresponding increase in herbicide use (FEIS:41).

Human Health

Table 4-36 in the Final EIS *Human Health and Safety* section displays and compares the Final EIS alternatives with respect to the acres of herbicides rated high, moderate, or low risk to public or worker health under any exposure scenario at typical application rate (FEIS:356). (The typical rate is used, because these particular herbicides have a PEIS Mitigation Measure requiring the use of typical rate where feasible (FEIS:59-61).) Except for the following six herbicides, herbicides included in the selected alternative are in the zero risk category for all public and worker exposure scenarios, including spill and other accidental exposure scenarios, at the typical rate (FEIS:102-103).

Diuron, bromacil, and tebuthiuron are rated in the Risk Assessments as having a high risk under numerous worker and public exposure scenarios (FEIS:356, 104). These herbicides would be used almost exclusively east of the Cascades, where most would be used as soil-applied pre-emergents along pavement edges; around power poles and pipelines; and within fenced, remote utility developments, such as around cell phone towers or transformers, where long-term vegetation control is needed to prevent wildfire damage (FEIS:62, 77-78). They are not usually applied to foliage where they might easily come in contact with the public, and a mitigation measure adopted as part of this decision further reduces the potential for public contact. Standard Operating Procedures and mitigation measures limit exposure (FEIS:460-465). Most applications would be conducted by the owners of pipelines, power lines, and roads owned and maintained by utility companies or county and State road departments and occupying BLM lands under permit east of the Cascades (FEIS:316-317). These herbicides are registered for these uses, they are being used throughout the State on other ownerships, and the analysis indicates that the likelihood of adverse effects to human health from these applications would be low (FEIS:289, 347-348, 351-352, etc.).

2,4-D is in the moderate risk category for the exposure scenarios of a) worker wearing contaminated gloves for an hour, and b) consumption of water from a pond contaminated with a spill. There is a low risk for subsistence consumption of contaminated fish, and all of the non-spill exposure scenarios involving the general public are rated zero (0) risk (FEIS:102-103). Worker risks can be mitigated by normal work practices (FEIS:347-348).

The inclusion of 2,4-D in this proposed action was specifically reconsidered at each step of the EIS process because of widespread public concern. Appendix 12 in the Final EIS summarizes much of the information considered in evaluating the risks and benefits associated with the use of 2,4-D (FEIS:783).

2,4-D is the second most commonly used herbicide in Oregon, and the BLM-proposed share under the selected alternative would be about 2/3 of 1 percent of the total used in Oregon (FEIS:119). As noted in Appendix 12, 2,4-D controls the widest range of target plants of any of the herbicides included in this decision, and it generally causes little or no damage to non-target grasses. In a tank mix, it extends the treatment season up close to seed-set because it provides a rapid burn-down – an important feature on BLM lands where flowers are often the readily visible distinguishing characteristic and limited numbers of control staff are expected to cover vast acreages before seed-set. As 2,4-D is commonly used by adjacent landowners and cooperators, its use by the BLM enhances cooperative weed control efforts. 2,4-D has the shortest half-life (10 days) of any of the herbicides included in the selected alternative (FEIS:783-786).

2,4-D would be used along some roadsides because it controls a wide range of encroaching vegetation while protecting most grasses. 2,4-D binds to foliage, which prevents it from being easily transported to nearby streams (FEIS:784, 194).

Use of 2,4-D under the selected alternative is projected to decrease about 37 percent when compared to the No Action Alternative (8,500 to 5,400 acres)(FEIS:77). A mitigation measure included in this decision may reduce use still further, that "consideration [will] be given to herbicides other than 2,4-D; use of 2,4-D should be limited to situations where other herbicides are ineffective or in situations in which the risks posed by 2,4-D can be mitigated." The decision to add diflufenzopyr + dicamba, and increasing experience with it and the other new herbicides being made available under this decision, may also lead to an overall reduction in 2,4-D use.

Triclopyr presents a low risk to women under two accidental public exposure scenarios at typical rates, direct spray on lower legs and dermal contact from contaminated vegetation (FEIS:103). PEIS Mitigation Measures (Attachment A) restrict application on large treatment areas where livestock or wild horse forage might be affected (FEIS:462). An additional mitigation measure included in this decision prohibits broadcast applications.

Dicamba was included on Final EIS Table 4-36 by mistake.[10] All typical rate exposure scenarios on the public and worker risk category tables, Final EIS Tables 3-18 and 19, are zero (FEIS:102-103). Nevertheless, dicamba use is estimated to decrease 60 percent when compared to the No Action Alternative (FEIS:77). The addition of diflufenzopyr + dicamba to the herbicides available under the selected alternative could reduce dicamba use still further (at least in terms of total pounds); the addition of diflufenzopyr to dicamba makes the dicamba effective at lower doses and thus reduces risks identified for dicamba. The typical and maximum rates for dicamba are 0.3 and 2 pounds per acre, while those for diflufenzopyr + dicamba are 0.2625 and 0.35 for rangeland (FEIS:59-61). (It is not used on forestland.) The Risk Assessments, and the Final EIS analysis for Alternative 5, which included this herbicide, identify little potential for significant adverse effects from its use.

This *Purpose* is best met by Alternative 3; the acres of moderate and high risk herbicides would decrease about 50 percent when compared to the No Action Alternative, even though acres treated would nearly double. Under Alternative 4, the number of acres treated with herbicides having a high or moderate risk to humans and the environment are slightly less than under the No Action Alternative, even though the total estimated treatment acres increases threefold. As noted above, however, these are comparisons of risk categories. Site-specific analysis and the implementation of mitigation measures and normal herbicide safety measures will prevent, or at least minimize, actual adverse effects. Thus, all of the action alternatives meet this *Purpose*.

7. *Control plant pests and diseases by removing their native plant hosts when necessary to meet Oregon Department of Agriculture-identified control objectives.*

This decision is programmatic. Site-specific analysis will determine if herbicides will actually be used for the control of diseases such as Sudden Oak Death, and under what conditions. Pests and diseases in State-identified control areas have the potential to cost the State and its businesses hundreds of millions of dollars. The BLM needs the ability to consider a wide range of herbicides for use on BLM lands, when and if State control objectives indicate they are needed. In the case of Sudden Oak Death, early study results and the expert opinion of specialists involved with the control efforts indicate herbicide treatment of host vegetation would likely be several times more effective at preventing reinfections than non-herbicide methods (FEIS:161). As in the treatment of noxious weeds, effective vigorous control at the outset of an infestation can help prevent widespread adverse effects later. Negative effects attributable to the level of herbicide use envisioned for Sudden Oak Death control are negligible at the programmatic scale of this decision (FEIS:160-162). All of the action alternatives fully meet this *Purpose*.

8. *Minimize treatment costs and improve treatment effectiveness, so resource and economic losses from invasive plants and other vegetation growth are reduced and more of the* Need *can be met within expected funding.*

The *Implementation Costs* portion of the analysis reveals two important cost savings from the selected alternative. First, the increased number of herbicides under all of the action alternatives increases the efficacy of noxious weed treatments from 60 to 80 percent when compared to the No Action Alternative. This alone lowers the cost per effectively treated acre (all methods) from $240 to $193 per acre (FEIS:340). These savings become available for additional treatments and thus contribute to the decrease in the weed spread rate predicted between the No Action

[10] As noted on the Changes page at the start of Chapter 3, certain ecological and human health risks for dicamba were changed between the Draft and Final EIS to reflect findings of the Forest Service Risk Assessment. During this process, a risk category was mistakenly added to Table 4-36.

and the action alternatives. The additional herbicides, particularly imazapic, will improve the BLM's ability to successfully restore sensitive fire-damaged Sagebrush Steppe habitat type and otherwise participate in cooperative weed control efforts across multiple ownerships, and thus increase the likelihood that the BLM and others will make additional investments in weed control. In these ways, the herbicides added by the action alternatives can be expected to significantly increase the number of acres of weeds that can ultimately be controlled and/or acres that can be restored (FEIS:340).

Second, the availability of herbicides to treat native and other non-invasive plants to meet safety and maintenance objectives around developments is estimated to reduce costs for these treatments, now being done with non-herbicide methods, by nearly $1 million per year. These savings will go to the development owners including the BLM and ultimately benefit the public in the form of reduced maintenance costs or better safety and maintenance work along these same developments (FEIS:341-343).

Alternative 3 partially meets this *Purpose*, but the ability to treat native and other non-invasive plants to meet safety and maintenance objectives under Alternatives 4 and 5 best meets this *Purpose*.

Summary

The conclusions under each of the Purpose discussions above are displayed on the table below. Alternatives 4 and 5 meet the *Need* and meet all *Purposes*. Alternative 4 is selected because Alternative 5 would increase the acres of herbicides having a high or moderate risk to the environment and humans by 12 and 27 percent respectively when compared to the No Action Alternative (FEIS:49). Alternative 5 would also cost more with little additional contribution to achievement of the EIS *Purposes*.

Purpose	**Alternative 3**	**Alternative 4**	**Alternative 5**
1. Control invasive plants	partially meets	meets	meets
2. Protect & maintain infrastructure	meets	meets	meets
3. Manage native habitats for Special Status species	partially meets	meets	meets
4. Reduce fire risk	meets	meets	meets
5. Cooperatively control weeds	meets	meets	meets
6. Prevent herbicide harm to humans & environment	best meets	meets	meets
7. Control pests and diseases (e.g. Sudden Oak Death)	meets	meets	meets
8. Lower costs and meet more of the *Need*	partially meets	meets	meets

Other Alternatives Considered in Detail and Reasons They Were Not Selected

Alternative 3 would meet the *Need* and many of the *Purposes*. It would not make herbicides available to manage native habitats for Special Status species (*Purpose* #3), and it would not control invasive plants (*Purpose* #1) or lower costs (*Purpose* #8) as well as Alternative 4. The *Comparison of the Effects of the Alternatives* section in Chapter 2, Table 2-6, *Purpose* #6, shows Alternative 3 to use 50 percent fewer moderate and high risk herbicides than any of the other alternatives, with Alternative 4 only slightly lower than Alternative 2 (FEIS:49). However, these are *risk* categories, and actual use, constrained by Standard Operating Procedures and mitigation measures including the ones adopted by this decision, will result in a low likelihood of Alternative 4 having adverse effects.

Alternative 5 would meet the *Need*, and meet all eight *Purposes* to varying degrees. Alternative 5 has the highest number of acres treated with moderate and high risk herbicides including the No Action Alternative. However, with the increased risk comes little difference toward meeting the *Purposes*.

The Environmentally Preferable Alternative

The Council of Environmental Quality's 40 Most Asked [NEPA] Questions, question #6a, defines the environmentally preferable alternative as the one "that will promote the national environmental policy as expressed in NEPA's Section 101. Ordinarily, this means the alternative that causes the least damage to the biological and physical environment; it also means the alternative which best protects, preserves, and enhances historic, cultural, and natural resources." The Council goes on to note that "[t]hrough the identification of the environmentally preferable alternative, the decision-maker is clearly faced with a choice between that alternative and others, and must consider whether the decision accords with the Congressionally declared policies of the Act."

NEPA's Section 101 [42 USC § 4331], referenced above, includes in part: "…it is the continuing policy of the Federal Government…to use all practicable means and measures, including financial and technical assistance, in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans."

Alternative 4 is identified as the Environmentally Preferable Alternative for the same reasons it is selected. Although the right-of-way treatments under Alternative 4 add herbicides having a high risk to human health under some exposure scenarios, these risks are mitigated with Standard Operating Procedures and mitigation measures (see discussion under *Purpose* number 6). Improved weed control and the opportunity for new habitat improvement treatments make Alternative 4 more environmentally preferable.

Public Involvement

Notice of Intent/Scoping

Preparation of the EIS upon which this decision is based officially began when the Notice of Intent to prepare an *Environmental Impact Statement (EIS) for Vegetation Treatments Using Herbicides on BLM Lands in Oregon* was published in the Federal Register (73[121]:35408–35409) on June 23, 2008. The Notice of Intent briefly described the proposed action and indicated that the BLM was seeking comments to help identify relevant issues and environmental concerns, identify possible alternatives, and help determine the scope of the EIS. The Notice of Intent was also posted to the project website at http://www.blm.gov/or/plans/vegtreatmentseis/, and a press release was mailed to print, radio, and broadcast media outlets across the State. At the same time, approximately 17,000 postcards were mailed to individuals, groups, government agencies, and tribes identified from Oregon BLM districts' and Oregon National Forests' "interested public" mailing lists as potentially interested in the EIS. These postcards, in addition to announcing the project and asking recipients if they wished to be on the project mailing list, noted there would be public meetings across the State in July 2008 to solicit ideas for issues (identified herein as *Purposes*) and alternatives to consider in the EIS (FEIS:12).

During July 2008, the BLM held 12 public scoping meetings in Oregon, one at or near each of the nine BLM District Offices and in Klamath Falls, Baker City, and Portland. Approximately 40 non-BLM persons attended these meetings and most contributed comments verbally. Eighty scoping "letters" were also received during or

shortly after the scoping period via letters, postcards, email, phone calls, and the comment page on the project website. These letters helped the BLM define the alternatives to be considered, as well as the eight *Purposes* to be addressed in the EIS and considered by the decision-maker (FEIS:13).

In addition to scoping comments, the BLM received postcards or emails from approximately 1,200 persons or groups asking to be on the project mailing list. Nine agencies, including the Oregon Department of Agriculture and the Bonneville Power Administration, received written and phone invitations to be formal cooperators with the BLM in the preparation of the EIS. Although they were supportive of the Proposed Action, all declined (FEIS:13).

The October 2009 Draft EIS

The public comment period for the *Draft Environmental Impact Statement for Vegetation Treatments Using Herbicides on BLM Lands in Oregon* (Draft EIS) started with a Federal Register notice (74[190]:50986–50987) on October 2, 2009, and ended on December 1, 2009. During the 60-day public comment period, 803 comment letters were received. The BLM continued to accept and process letters received between December 2, 2009, and the completion of public comment analysis on January 6, 2010. During this time, the BLM received and processed an additional 240 comment letters (FEIS:13).

Letters were received from a variety of interests including individuals, organizations (including watershed councils), businesses, and Federal, State, and local (including soil and water conservation districts) government agencies. Letters were received from ten states, as well as from India, but the majority of letters originated in Oregon. Substantive comments were identified, summarized, and combined into 312 unique comment statements. Responses were prepared, resultant new information was added to the EIS, and EIS language was clarified. Appendix 10 contains the comment statements and responses, organized to follow the order of the Final EIS. Responses to letters received from Federal, State, and local governments are included in Appendix 10, and their letters are displayed in their entirety in Appendix 11 (FEIS:13).

The July 2010 Final EIS

A Notice of Availability of the *Final Environmental Impact Statement for Vegetation Treatments Using Herbicides on BLM Lands in Ore*gon (Final EIS) was published in the Federal Register on July 30, 2010. Although the BLM's formal administrative appeal process precludes the need for any separation between issuance of the Final EIS and Record of Decision, the Notice indicated the signing of this Record of Decision would take place 30 to 90 days following issuance of the Final EIS. Four letters about the Final EIS were received by the BLM in the 31-day period that ended on August 31, 2010.[11] These letters were analyzed to determine if they contained substantive comments that were not already addressed in the responses to public comments received on the Draft EIS (see Appendix 10 in the Final EIS) or that addressed a change between the Draft and Final EIS. One such comment was received and is addressed below. The comment suggested that dioxins are a significant concern, and that a discussion of dioxins or a mitigation measure requiring their avoidance is not readily apparent in the Final EIS.

Dioxins were generally not discussed in the effects sections of the EIS because the Risk Assessments indicated that they do not represent a significant toxicological concern. Various dioxins can be formed during certain steps in the manufacture of various pesticides and other chemicals. Of the 18 herbicides discussed in the Final EIS, the EPA lists 2,4-D and dicamba as herbicides suspected of being contaminated with dioxins, and lists diuron

[11] The Record of Decision went for typesetting on the following day.

as having the potential to become contaminated with dioxins if synthesized under conditions favoring dioxin formation (EPA 2006).[12] The EPA has prohibited or severely regulated processes that can lead to dioxin formation in recent years, particularly those leading to the formation of 2,3,7,8-TCDD, the dioxin of greatest toxicity and concern and the one most implicated in adverse health effects from 2,4-5-T and Agent Orange. Dioxin emissions in the United States have been significantly reduced in recent years, and according to a 2006 EPA report, by 2000 the leading source of dioxin emissions in the United States was backyard burning (EPA 2006). Other leading sources are wildfires, waste treatment, and various manufacturing. The presence (or non-presence) of dioxins in 2,4-D is discussed in Appendix 10, Comment and Response numbers 271 and 274 (FEIS:746-747). Dioxins are discussed in detail in the 2,4-D Risk Assessment in Appendix 8, which indicates the dioxin TCDD, the potent dioxin previously associated with 2,4,5-T and Agent Orange, has been present in some recent samples of 2,4-D at concentrations slightly above 1 part per billion. Two other dioxins, PCDD and PCDF, are often present in detectable quantities. The EPA conducted a detailed risk assessment for PCDD/PCDF contamination of 2,4-D and concluded that risks associated with such contamination were likely inconsequential (FEIS Appendix 8, 2,4-D Risk Assessment). Any human health or environmental risk from dioxins is reflected in the risk categories shown on Final EIS Tables 3-12 through 3-21.

In addition, a letter was received from the EPA, which requested that the BLM adopt the potential monitoring discussed in Appendix 3 of the Final EIS, with the caveat that "if the EIS has not identified adverse impacts that would need or benefit from "potential monitoring", it should not be implemented. The likelihood of meaningful monitoring results should be such that a deferral of funds from direct weed control efforts is justified." They also noted that the edits to Appendix 3 in the Final EIS were responsive to their comments on the Draft EIS that called for an enhanced description of the minimum requirements for site-specific effectiveness monitoring.

No significant new information was presented in the four letters that would require reissuance of the Draft or Final EIS.

Consultation with Tribes

During initial scoping for the EIS in July 2008, 13 American Indian Tribes received letters explaining the project and the potential for effects to significant gathering areas and other resources, seeking their input and extending an invitation to initiate government-to-government consultation. Follow-up phone calls to these Tribal governments were made by the BLM districts reiterating these messages. No Tribe accepted the request for formal consultation at the programmatic level. The Bureau of Indian Affairs was also sent the Tribal scoping letter (FEIS:13, 14).

Required cultural resource reviews, inventories, and consultation with American Indian Tribes in areas likely to include cultural resources and traditional cultural values, is a required part of site-specific project planning that will reduce the potential for adverse effects to cultural resources. Pre-disturbance site identification methods, and avoidance or other protection methods, will reduce the chance that significant cultural resources would be impacted and would result in negligible cumulative impacts to cultural resources (FEIS:284, 285, 292).

For the PEIS, the BLM consulted with the affected State Historic Preservation Offices (SHPOs) as part of Section 106 consultation under the National Historic Preservation Act to determine how proposed vegetation treatment actions could affect cultural resources (PEIS:Appendix G). Formal consultations with the Oregon SHPO and potentially affected Indian Tribes also may be required during implementation of projects at the local level (FEIS:14).

[12] Environmental Protection Agency. 2006. An Inventory of Sources and Environmental Releases of Dioxin-Like Compounds in the U.S. for the Years 1987, 1995, and 2000 (Final, Nov 2006)

Endangered Species Act Consultation

For the PEIS, the BLM consulted with the FWS and NMFS as required under Section 7 of the Endangered Species Act (PEIS:Chapter 5 and Appendix G). The BLM prepared a formal initiation package that included: 1) a description of the program, Federally Listed species, species proposed for Federal Listing, and critical habitats that may be affected by the program; and, 2) a *Biological Assessment for Vegetation Treatments on Bureau of Land Management Lands in 17 Western States*. That Biological Assessment evaluated the likely impacts to the above species and habitats from the proposed use of herbicides and other treatment methods, and identified management practices (Conservation Measures) to minimize impacts to these species and habitats (FEIS:13-14).

The FWS issued a Letter of Concurrence on September 1, 2006 that concurred that the proposed action as described in the PEIS and Biological Assessment, with all Standard Operating Procedures and PEIS Mitigation Measures, would not likely adversely affect any Federally Listed species under the jurisdiction of the FWS. In addition, the FWS recognized that any future site-specific actions carried out under the PEIS would undergo additional consultation as appropriate (FEIS:14).

The Biological Opinion issued by the NMFS on June 26, 2007 concluded that the proposed action as described in the PEIS and Biological Assessment was not likely to jeopardize the continued existence of endangered and threatened salmon and trout, threatened green sturgeon and threatened southern resident killer whales. Since the PEIS does not authorize any site-specific actions, subsequent Section 7 review on proposed site-specific vegetation treatments will be required. There is no incidental take[13] identified or exempted by the Biological Opinion. If take is anticipated for site-specific treatments then the amount or extent of take will be identified during consultation for those proposed treatments (FEIS:14).

Like the PEIS, the Oregon programmatic Final EIS does not authorize site-specific actions or amend Resource Management Plans. In addition, the three action alternatives in the Final EIS are subsets of the selected alternative in the PEIS. Therefore, the Final EIS incorporated the PEIS Biological Assessment by reference (50 CFR 402.12(g)). Information from the PEIS Biological Assessment about Federally Listed species in Oregon, updated to include recently expanded bull trout critical habitat, the listing of Pacific Eulachon, and the 12-month findings for petitions to list the greater sage grouse, is included in Appendix 5 of the Final EIS. Informal consultation with the FWS (50 CFR 402.13) (Attachment C) and formal consultation with NMFS (50 CFR 402.14) (Attachment D) confirmed and applied the PEIS consultation results to the Oregon Final EIS. Specific treatment projects conducted under this decision remain subject to site-specific consultation as appropriate (FEIS:14). Conservation Measures from the PEIS Consultation and Conferencing added to Appendix 5 in the Final EIS, and clearly referenced in Appendix 2, are a part of this Record of Decision (see Attachment B).

Findings Required by Other Laws and Regulations

No Supplement to the Draft EIS is Needed

The Final EIS, particularly the public comment and responses to the Draft EIS displayed in Appendix 10, the *Changes Between Draft and Final EIS* pages at the front of each chapter, and the letters received in the 30 days following publication of the Final EIS have been carefully reviewed. Although the analysis in the Final EIS was improved as a result of public review and comment, the Final EIS does not make substantial changes in the proposed action that are relevant to environmental concerns nor are there significant new circumstances or

[13] "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.

information relevant to environmental concerns and bearing on the proposed action or its impacts. Therefore, no reissuance of a Draft EIS is required under 40 CFR 1502.9.

Implementation of the Decision

Existing Environmental Assessments Remain in Effect, Constrained by Elements of the Selected Alternative

Each district currently has one or more Environmental Assessment documents describing their noxious weed control program. These documents are generally tiered to the 1985 *Northwest Area Noxious Weed Control Program Final EIS* and its 1987 Supplement (USDI 1985a, 1987), either directly or indirectly through their respective Resource Management Plans. The existing Environmental Assessments for Prineville, Lakeview, and Burns also specifically tier to the 1991 *Vegetation Treatment on BLM Lands in Thirteen Western States Final EIS*. Environmental Assessment treatment plans are periodically updated to reflect the shifting nature of noxious weed populations and the control efforts needed to contain them (FEIS:16).

The July 2010 *Vegetation Treatments Using Herbicides on BLM Land in Oregon Final EIS* addresses the use of herbicides as part of the vegetation management program on public lands administered by the BLM in Oregon and is intended to be applicable for approximately 10 to 20 years. However, this decision, and the Final EIS upon which it is based, does not set weed treatment priorities or approve projects. Prior to the use of herbicides other than 2,4-D, dicamba, glyphosate, or picloram for the control of noxious weeds, new site-specific analyses will be conducted with the opportunity for public comment (see *Exceptions* below). These site-specific analyses will identify the potential effects of specific herbicide treatments. Until new site-specific assessments are completed and in use, the use of 2,4-D, dicamba, glyphosate, or picloram for noxious weed control will be governed by existing NEPA documents, constrained by the Standard Operating Procedures and other elements of this decision (FEIS:16).

Exceptions: Existing NEPA documents affected by this decision include the 2005 and 2006 Final EISs and Records of Decision for the Tyrrell, Horning, Provolt, and Sprague Seed Orchards. These documents thoroughly examine the use of certain herbicides, and include an appropriate consideration of risk (FEIS:313, 318). Similarly, a 1995 Forest Service Environmental Assessment for the Dorena Tree Improvement Center addresses the use of glyphosate at the Center (FEIS:313, 318). Finally, a 2010 Environmental Assessment on the Coos Bay District addresses the use of glyphosate for the control of tanoak sprouting in Sudden Oak Death control units (FEIS:161).

The herbicide use described in these documents was included in the estimates of herbicide use examined in the Final EIS (FEIS:16). Other than constraining herbicide uses by the Standard Operating Procedures and other elements of this decision, this decision assumes the herbicide uses described in those existing NEPA documents will proceed. However, this decision makes no finding regarding whether these documents need to be updated.

Use of Individual Risk Assessment Tools During Implementation

As noted in the PEIS Mitigation Measures in Attachment A, site-specific analysis and/or the use of Individual Risk Assessment Tools (IRATs) can be used to identify alternative ways to achieve the expected protections. The Risk Assessments themselves include the information necessary to determine risk categories for specific situations and proposals; the IRATs are one tool to assist in translating this information to project design parameters. The IRATs are currently being developed for the BLM Risk Assessments, are scheduled for completion in 2012, and are intended to make risk assessment calculations easier to understand and review, allowing for more project specific mitigation measures to be developed (FEIS:92).

Legal, Policy, and Resource Management Plan Requirements

Nothing in this decision allows departure from State and Federal laws regarding herbicide use. Use is constrained by registration and labeling requirements. Similarly, BLM policies such as those for Special Status species continue to apply. This decision does not amend Resource Management Plans; herbicide use, like the use of other vegetation management tools, must be consistent with applicable plans.

Update on Non-BLM Actions Potentially Affecting the Use of Herbicides on BLM Lands in Oregon

Updates on Actions Described in the Final EIS

The BLM will comply with future changes in label or application requirements made by appropriate agencies. Nevertheless, several actions are described in Chapter 1 of the Final EIS whose status is ongoing or pending. The status of each of these was examined at the time of signing this decision. Results are described below; see Chapter 1, FEIS:17-21, for additional detail.

The following actions remain as described in the Final EIS:

- Potential Consultation Lawsuit Regarding 394 Pesticides;
- Petition to Cancel all Registrations of 2,4-D;
- Sulfometuron Methyl Reregistration Eligibility Decision (RED);
- Rulemaking to Require Disclosure of All Pesticide Ingredients;
- Pending EPA Action to Address Pesticide Drift; and,
- Air Quality Non-Attainment Areas for $PM_{2.5}$

2004 Court-Ordered Buffer Around Salmon-bearing Streams and the Settlement Agreement to Complete Consultation on 37 Pesticides

A 2008 settlement requires the NMFS to complete consultation on the 37 pesticides, including three evaluated in the EIS (2,4-D, diuron, and triclopyr BEE), and to design measures that will minimize adverse impacts. Consultation for six of these pesticides has been completed and is in progress for an additional twelve. However, consultation for the three herbicides included in this decision has not yet begun.

Actions Occurring Since the Issuance of the Final EIS

FIFRA Amendment to Exempt Pesticide Applications from Pollutant Discharge Elimination System Permits

In 2006, the EPA defined label-specified herbicide applications as not constituting a discharge of pollutants under the Clean Water Act. However, this decision was overturned by the US Court of Appeals for the Sixth Circuit, and the EPA was given until April 2011 to prepare a general National Pollutant Discharge Elimination System permit. In response to this, a bill was introduced in both the U.S. Senate and House of Representatives in August

2010 that amends the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) to state that "no permit shall be required for the use of a pesticide that is registered or otherwise authorized for use under this Act, if that use is in accordance with this Act." As of August 2010, this bill was still in committee in both the House and the Senate.

Administrative Appeal Procedures

This decision may be appealed to the Interior Board of Land Appeals (IBLA), Office of the Secretary, in accordance with regulations contained in 43 Code of Federal Regulations (CFR), Part 4 and Form 1842-1. If an appeal is filed, your notice of appeal should be mailed to the Oregon/Washington BLM State Director, P.O. Box 2965, Portland, Oregon 97208-2965, and be postmarked within 30 days of the publication of the Notice of Availability for this decision in the Federal Register. For example, if the Notice of Availability were published in the Federal Register on October 1, 2010, appeals would need to be postmarked no later than Monday, November 1, 2010. The appellant has the burden of showing the decision appealed is in error.

A copy of the appeal, statement of reasons, and all other supporting documents must also be sent to the Regional Solicitor, Pacific Northwest Region, U.S. Department of the Interior, 805 SW Broadway #600, Portland, Oregon 97205-3346. If the notice of appeal does not include a statement of reasons for the appeal, it must be sent to the Interior Board of Land Appeals, Office of Hearings and Appeals, 801 North Quincy Street, Arlington, Virginia 22203 within 30 days of filing the notice of appeal (43 CFR 4.412). It is suggested that appeals be sent certified mail, return receipt requested.

Requests for Stay: Should you wish to file a motion for stay pending the outcome of an appeal of this decision, you must show sufficient justification based on the following standards under 43 CFR 4.21:

- The relative harm to the parties if the stay is granted or denied.
- The likelihood of the appellant's success on the merits.
- The likelihood of immediate and irreparable harm if the stay is not granted.
- Whether or not the public interest favors granting the stay.

As with an appeal, the motion for stay must be filed with the Oregon/Washington BLM State Director and the Regional Solicitor.

References

All references cited in this Record of Decision can be found in the *References* section of the Final EIS (FEIS:391-420).

Enclosures

Attachment A – Standard Operating Procedures and PEIS Mitigation Measures
Attachment B – Conservation Measures for Special Status Species
Attachment C – U.S. Fish and Wildlife Service Consultation Letter
Attachment D – National Marine Fisheries Service Consultation Letter

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