FINDING OF NO SIGNIFICANT IMPACT

INTEGRATED INVASIVE PLANT MANAGEMENT FOR THE MEDFORD DISTRICT ENVIRONMENTAL ASSESSMENT
BUREAU OF LAND MANAGEMENT
DOI-BLM-ORWA-M000-2017-0002-EA

I. INTRODUCTION

The Bureau of Land Management (BLM), Medford District, is proposing to expand and update its existing integrated noxious weed management program. The Medford District currently controls noxious weeds under a District-wide 1998 *Integrated Weed Control Plan and Environmental Assessment* (EA) that analyzes treatments using a range of methods including manual, mechanical, biological controls (mostly insects), and herbicides (2,4-D, dicamba, glyphosate, and picloram). The District proposes to expand this program by selecting the Proposed Action in the EA, which would:

- Broaden the scope of the program to include invasive plants as well as noxious weeds;
- Increase the number of herbicide active ingredients available for use; and,
- Add non-herbicide direct control methods, including targeted grazing, competitive seeding / planting, additional biological control agents, propane torch spot treatments, and mechanical methods such as chainsaws and weed-eaters.

Use of the additional herbicides was previously analyzed in the 2007 *Vegetation Treatments Using Herbicides on BLM Lands in 17 Western States Final Programmatic Environmental Impact Statement* (2007 PEIS), the 2010 *Vegetation Treatments Using Herbicides on BLM Lands in Oregon Final Environmental Impact Statement* (2010 FEIS), and the 2016 *Vegetation Treatments Using Aminopyralid, Fluroxypyr, and Rimsulfuron Final Programmatic Environmental Impact Statement* (2016 PEIS). This 2017 EA tiers to the 2007 PEIS, 2010 FEIS, and 2016 PEIS, and analyzes herbicide and non-herbicide invasive plant treatment methods applied in an integrated management approach. It examines the environmental effects of the proposal at a site-specific scale within the Medford District. The Decision Record that follows this EA will replace the one currently in place.

Consistent with the EA and the analysis summarized below, the Proposed Action would not constitute a major Federal action that would have significant adverse impacts on the quality of the human environment. Therefore, preparation of an EIS is not required.

II. DETERMINATION OF SIGNIFICANCE

The Council on Environmental Quality's (CEQ) regulations provide that the significance of impacts must be determined in terms of both context and intensity (40 C.F.R.§1508.27). An analysis of the context and intensity of the effects of the Proposed Action follows.

A. Context: In accordance with CEQ regulations found at 40 C.F.R.§1508.27(a), the significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting of the proposed action. For instance, in the case of a site-specific action, significance would usually depend upon the effects in the locale rather than in the world as a whole. Both short and long-term effects are relevant.

The alternatives describe site-specific actions directly affecting approximately 2,000 gross acres (300-500 net acres) on the Medford District annually. Currently there are over 13,000 acres of mapped infestations and an unknown amount of unmapped infestations on the 866,000 total acres within the Medford District boundary. There are also interspersed private or other public lands within the District. The treatments would occur entirely on BLM-administered lands within the Medford District. The treatments would be dispersed (most sites are less than ½ acre in size) and 95 percent of herbicide applications would be spot treatments. The Proposed Action does not have international, national, region-wide, or state-wide importance.

B. Intensity: The following analyzes the intensity of the Proposed Action using the ten significance criteria described in CEQ regulations found at 40 C.F.R.§1508.27(b):

1. Impacts that may be both beneficial and adverse.

The potential for herbicides to harm wildlife, fish, people, non-target plants, and other elements of the environment has been examined in detail in existing Risk Assessments (see Appendix C of the attached EA for a summary). Where the Risk Assessments identified a potential for an adverse effect, and existing Standard Operating Procedures did not eliminate that potential, Mitigation Measures from the 2010 FEIS and the 2007 and 2016 PEISs and Project Design Features adopted as part of this analysis were incorporated into the Proposed Action to eliminate the potential for significant adverse effects. Standard Operating Procedures and Project Design Features also address potential adverse effects of mechanical, manual, and biological methods. The Risk Assessments, Standard Operating Procedures, and Mitigation Measures served as a primary information source for much of the analysis of effects.

In addition to the foregoing, the EA demonstrates that the Proposed Action would reduce invasive plant spread in the Medford District by 28,063 fewer acres over a 20-year period when compared with the No Action Alternative. Additionally, the Proposed Action provides treatment options to control 14 different species of noxious weeds that currently cannot be effectively controlled with the four herbicides and treatment methods available to the Medford District, as well as 140 other invasive plants species that cannot be treated because they are not designated as noxious. Therefore, the Proposed Action would facilitate protection and rehabilitation of plant communities overrun or threatened by these invasive plants. Given the adverse effects of invasive plants identified within the EA, the Proposed Action is expected to result in a beneficial effect.

2. The degree to which the Proposed Action will affect public health or safety.

The EA demonstrates that the Proposed Action would have no negative effect on public health or safety, as described in *Human Health* Issues in Chapter 3. Appropriate training and work practices dictated by Federal and State Occupational Safety and Health Administration rules, together with Standard Operating Procedures and Mitigation Measures, address worker and public safety associated with invasive plant treatments. The herbicides included in the Proposed Action have been examined by the BLM and Forest Service through Risk Assessments. Human health risk ratings are discussed in the *Human Health* Issues in Chapter 3 of the attached EA. The Risk Assessment-modeled scenarios, including direct exposure as well as subsistence-level ingestion of contaminated fruit and water, were deemed no risk for most of the herbicides under most scenarios. “No risk” means exposure modeling scenarios resulted in dosages less than one-tenth of the lowest observable effect level identified during testing or simulations based on existing research.[1] Where the Risk Assessments found risks above the lowest observable effect level, Mitigation Measures identified in the 2010 FEIS or 2007 and 2016 PEISs were incorporated into the Proposed Action to ensure that human exposures remain below the modeled scenarios. Mitigation Measures include using lower herbicide application rates where feasible, prohibiting broadcast spraying in some situations, and posting warning signs in large application areas and high public use areas. With application of these Mitigation Measures, the EA analysis shows that none of the potential risks to human health are significant.

Project Design Features addressed in the EA to prevent risk of harm to tribal members also include meeting with interested local tribes to review treatment plans, and posting signs in appropriate treatment areas. In addition, Standard Operating Procedures and Mitigation Measures (see Appendix A of the attached EA) will be followed to prevent water (including groundwater), soil, and vegetation contamination.

The EA demonstrates that there would be no negative health or safety effect to low income or minority populations (see *Environmental Justice* Issue).

[1] The lowest observable effect may have been eye irritation, rash, or any other adverse effect. *Risk Assessments* note that such effects are virtually all reversible when the exposure is eliminated.

3. The anticipated severity of the impacts to unique characteristics of the geographic area such as prime and unique farm lands, Wild and Scenic Rivers, Designated Wilderness, or Areas of Critical Environmental Concern.

There are no prime and unique farmlands on BLM-administered lands within the District. As described in the *Special Areas* Issues, a Standard Operating Procedure applicable to all alternatives states that control of invasive plants must be done in a manner that protects the resources and values for which special areas are designated, and therefore adverse effects would be negligible. Treatments could have short-term and usually negligible negative effects for the first year following treatment (e.g., closure of a site for a day or soil disturbance from grubbing a plant). In the long term, effects would be beneficial to special area values because of the return of native vegetation. The result of an invasive plant management program with more effective herbicides and additional non-herbicide methods under the Proposed Action (80 percent effective compared to 60 percent effective under the No Action Alternative) would allow the District to selectively treat invasive plants with fewer retreatments and fewer adverse effects to non-target species.

4. The degree to which the effects on the quality of the human environment are likely to be highly controversial.

Controversy is defined as disagreement within the scientific community about the nature of the effects (40 C.F.R. 1508.27(b)(4)). The Environmental Protection Agency (EPA) requires pre-market multiple toxicity, persistence, and environmental fate tests prior to registration of herbicide products. The toxicity tests include mammals, fish, plants, and other taxa. All of the herbicides proposed for use in this EA are registered with the EPA. In addition, this analysis relies on BLM or Forest Service-prepared Risk Assessments for each of these herbicides. Risk Assessments are analytical examinations of the potential for adverse effects given modeled and described exposures and doses, and include an up-to-date review of the best available scientific literature. These herbicides are extensively studied and there is enough information available for the decision-maker to understand the potential for environmental effects. The science used to inform environmental effects described in this EA is long-established and not highly controversial.

5. The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.

The BLM concludes that there is very little uncertainty regarding the effects of the Proposed Action, that there are no unique risks associated with the Proposed Action, and that there is a very small chance that unknown risks will come to light. The BLM bases this conclusion on the following:

(a) The herbicides in the Proposed Action were analyzed at the statewide level in the 2010 *Vegetation Treatments Using Herbicides on BLM Lands in Oregon FEIS* or nationally in the 2007 and 2016 *Vegetation Treatments PEISs*;
(b) The herbicides have been analyzed as part of EPA registration and Forest Service / BLM Risk Assessments, which examine wildland herbicide use and worker / public safety;
(c) Specialists familiar with District resources and past noxious weed treatments prepared the EA analysis; and,
(d) Currently there are 13,000 acres of mapped infestations and an unknown amount of unmapped infestations on the 866,000 total acres within the Medford District boundary. The treatments (2,000 gross acres and 300-500 net acres / year) would occur entirely on BLM-administered lands within the Medford District. The treatments would be dispersed (most sites are less than ½ acre in size) and 95 percent of herbicide applications would be spot treatments.

The herbicides and treatment methods that are included in the Proposed Action have been extensively researched and analyzed and are subject to hundreds of Protection Measures controlling how, when, and where treatments can be implemented in order to mitigate potential risks.

6. The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.

The Proposed Action does not establish a precedent for actions with potentially significant adverse effects, nor does it represent a decision in principle about a future consideration. The Proposed Action only applies to invasive plant management within the Medford District. Each of the other BLM districts in Oregon has conducted or will conduct an independent NEPA analysis to determine appropriate site-specific invasive plant management within that district. No national or other precedent would be created by implementing the Proposed Action. Use of herbicides other than those analyzed in this EA would be subject to additional NEPA analysis and significance of effects of such action would be separately assessed.

7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.

Based on the analysis contained within the various resource effects issues in Chapter 3 of the attached EA, the Proposed Action would not have significant cumulative effects; there are no adverse cumulative effects associated with the Proposed Action. The analysis shows more effective control of invasive plant species due to more targeted treatments that are more consistent with treatments of other State, County, and Federal agencies and private industrial timber landowners. Under the Proposed Action, invasive plants are less likely to spread from BLM to adjacent lands and vice versa.

For the following resources, the analysis shows negligible or no adverse effects resulting from invasive plant treatments: native vegetation, fish and aquatic organisms, wildlife, human health, soil, water, air quality, fire, paleontological resources, archeological and cultural resources, traditional and cultural uses, environmental justice, socioeconomics, livestock grazing, recreation, special areas, and visual resources (see Issue sections in Chapter 3 of the attached EA). This is largely due to the small amount of acres treated in a given year, the dispersed nature of the treatments, the targeted application of herbicides and several hundred Project Design Features and Standard Operating Procedures that would be applied for the Proposed Action. These individually insignificant effects are not cumulatively significant.

8. The degree to which the action may adversely affect districts, sites, highways, structures, or other objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.

The Proposed Action would be implemented within areas used historically by Native Americans, and which contain known and unknown Native American spiritual and sacred sites, and important ceremonial and subsistence plant collecting sites. The potential to affect these sites is discussed in Chapter 3 of the EA (see *Traditional and Cultural Uses (Native American Interests)* Issue). The analysis concludes that cultural site surveys, the incorporation of appropriate Project Design Features, Mitigation Measures, monitoring, and annual review of treatment plans with interested tribes will prevent the loss or destruction of significant cultural or historical resources.

Additionally, neither alternative will adversely affect districts, sites, highways, structures, or other objects listed in or that are eligible for listing in the National Register of Historic Places (see *Archeological and Cultural Resources* Issue). The BLM will follow the 2015 State Protocol between the Oregon BLM and the Oregon State Historic Preservation Office (SHPO) regarding the manner in which the BLM will meet its responsibilities under the National Historic Preservation Act and the National Programmatic Agreement among the BLM, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers (Oregon SHPO and USDI 2015). Each treatment application (project) will be reviewed on a case-by-case basis to determine the appropriate protection measures needed. Fieldwork may be required to establish the presence / absence of cultural resources and their significance.

9. The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.

The Medford District has five federally listed species that are known to occur on the District that have the potential to be affected by invasive plant management.

The Proposed Action could potentially affect Coho salmon (threatened, Oregon Coast and Southern Oregon / Northern California Coast Evolutionary Significant Units) and its designated Critical Habitats and essential fish habitat. No direct adverse effects are anticipated as a result of the Proposed Action, as Protection Measures limit the potential for terrestrial applications of herbicides from entering the water directly. There is a slight potential for short-term minor localized adverse effects to desirable aquatic vegetation and negligible adverse effects because of sediment. However, because more selective herbicides are available under the Proposed Action, the potential for unintended effects to aquatic vegetation would be reduced.

The effects from terrestrial invasive plant control actions on these species were analyzed in the Aquatic Restoration Biological Assessment II (ARBA II) and were provided Endangered Species Act coverage under the National Marine Fisheries Service's Aquatic Restoration Biological Opinion (ARBO II, NMFS 2013). In ARBO II, a *Likely to Adversely Affect* determination was made for Coho salmon and its critical habitat. Project Design Criteria for invasive plant control outlined in National Marine Fisheries Service (NMFS)'s ARBO II were fully incorporated as a Project Design Feature of this EA and the extent of take authorized in ARBO II correlates to the extent of treated areas outlined in the Project Design Criteria of ARBO II (i.e. less than, or equal to, 10 percent of the acres in a riparian reserve within a 6th field HUC [hydrologic unit code] watershed / year).

ARBO II does not cover the use of fluazifop-P-butyl, fluroxypyr, *Pseudomonas fluorescens,* or rimsulfuron. However, all other terrestrial herbicide treatments included in ARBO II are consistent with those included in the Proposed Action; therefore, ARBO II provides consultation coverage for most treatments. If use of these four herbicides needed to occur in areas where treatments may have the potential to affect listed species or habitat, additional consultation with NMFS would occur, as appropriate (see *Fish and Aquatic Organisms* Issues).

There are two federally listed plants that could potentially be affected by the Proposed Action. Gentner's fritillary and Cook's lomatium are documented to occur on BLM-administered lands in the Medford District. The Medford District includes potential habitat for the large-flowered woolly meadow-foam, though it has not been observed. The additional herbicides available under the Proposed Action present more selective and effective treatment options that reduce the potential for adverse effects, in some cases presenting a treatment option for an invasive species such as medusahead rye that was previously untreatable. The removal of invasive plants would result in improved reproductive output, higher rates of recruitment, and a higher potential for threatened and endangered plants to colonize adjacent suitable habitat.

The effects of management activities, including invasive plant management, on listed plant species were assessed in a 2013 *Biological Assessment of activities that may affect the federally listed plant species, Gentner's Fritillary, Cook's Lomatium, and Large-flowered Woolly Meadowfoam, on Bureau of Land Management, Medford District and Cascade-Siskiyou National Monument* (USDI 2013b). The Biological Assessment includes Project Design Criteria for treating near or within federally listed plant occurrences; including restrictions to treat invasive plants when native plants are dormant with hand-pulling, spot spraying, wicking or direct injection of herbicide; and roadside spray would not occur within 50 feet of known occurrences of listed plants. A determination of "may affect, not likely to adversely affect" was made for Cook's lomatium and its critical habitat, as well as Gentner's fritillary. The U.S. Fish and Wildlife Service provided a letter of concurrence with that determination January 21, 2014, and agreed on March 21, 2017 that the Proposed Action of this EA was consistent with the Biological Assessment and determination because the Project Design Criteria from that Biological Assessment were fully incorporated as Project Design Features of this EA.

Effects to the Oregon spotted frog (threatened) and the vernal pool fairy shrimp (threatened) were analyzed in the *Biological Assessment FY2017-FY2022 Programmatic Activities That May Affect the Northern Spotted Owl, Marbled Murrelet, Vernal Pool Fairy Shrimp, and Oregon Spotted Frog* for the Medford District (USDI 2017a) and a determination of "may affect, not likely to adversely affect" was made for these two species. A Project Design Feature adopted as part of this analysis states that all Project Design Criteria outlined in the Biological Assessment for these species will be implemented in the Proposed Action, which includes seasonal restrictions and herbicide buffers from listed species habitat.

The Proposed Action would have no adverse effects on the Oregon spotted frog or vernal pool fairy shrimp. The majority of the treatment areas are anticipated to occur outside of the current range of the Oregon spotted frog on the District; the current need for invasive plant treatment appears very limited, estimated at 0.1 riparian acres of habitat. Treatments in Oregon spotted frog and vernal pool fairy shrimp habitat would follow all Project Design Criteria from the Biological Assessment, which includes herbicide buffers from listed species habitat. Herbicide treatments will not occur within the vernal pools and other treatments will only occur during the dry season (generally April – November), outside of a 30 foot buffer around the margin of the pools. Herbicide treatments across the District would have long-term beneficial effects for both species by reducing the spread of invasive plants that could negatively affect habitat in the future.

Three federally listed species may occur on the Medford District but would not be affected by the Proposed Action. The gray wolf is federally listed as endangered and the marbled murrelet and northern spotted owl are federally listed as threatened. Effects to marbled murrelets are not anticipated because there is a low likelihood of marbled murrelets occurring on the District and the proposed invasive plant treatments would not modify marbled murrelet habitat. Effects to spotted owls are not anticipated because proposed invasive plant treatments would not modify spotted owl habitat and would not affect prey species. Potential disturbance near nest sites is not anticipated because projects are usually short in duration, spatially limited, and affected areas receive baseline disturbance from vehicle traffic and other activities. Spotted owls would likely be acclimated to the potential noise disturbance associated with the Proposed Action. Effects to wolves are not anticipated because the proposed invasive plant treatments would not modify the general habitat they use and would not affect prey availability.

10. Whether the action threatens to violate Federal, State, or local law or requirements imposed for the protection of the environment.

The EA demonstrates that the Proposed Action complies with all Federal, State, and local environmental laws and other environmental requirements, including, without limitation, the Clean Water Act, Clean Air Act, and Endangered Species Act. Additionally, the Federal Land Policy and Management Act requires that any action that BLM implements must also conform with the current land use plan and other applicable plans and policies. The Proposed Action conforms with the management direction contained in the *Southwestern Oregon Resource Management Plan and Record of Decision* (USDI 2016d) and the *Cascade-Siskiyou National Monument Resource Management Plan Record of Decision* (USDI 2008), and associated records of decision (see EA, Chapter 1). It also conforms with Executive Orders and various U. S. Department of the Interior policies regarding the use of herbicides and the management of invasive plants; and the constraints and requirements adopted in the Records of Decision for the 2010 FEIS and the 2007 and 2016 PEISs. The BLM has consulted with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service on threatened and endangered Species and have incorporated all Project Design Features into the Proposed Action.

III. FINDING

The potential impacts associated with the use of herbicides to treat noxious weeds and other invasive plants were previously evaluated in the 2010 FEIS and the 2007 and 2016 PEISs. The impacts of herbicide use described for the Proposed Action analyzed in the attached EA generally falls within the range of those analyzed in these analyses and the types of actions and the amounts of treatments under the Proposed Action would be consistent with the actions analyzed in the 2010 Oregon FEIS and the 2007 and 2016 PEISs. In view of this, and on the basis of (1) the analysis contained in the attached EA addressing manual, mechanical, biological, propane torch, herbicide application, and competitive seeding or plantings, (2) the consideration of context and intensity factors described above, and (3) all other available information, my determination is that the Proposed Action would not constitute a major Federal action which would have significant impacts on the quality of the human environment. Therefore, an EIS for the Proposed Action is unnecessary and will not be prepared.

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Elizabeth R. Burghard, District Manager Date
Medford District