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UNITED STATES DEPARTMENT OF INTERIOR
OFFICE OF HEARINGS AND APPEALS
INTERIOR BOARD OF LAND APPEALS

LEAGUE OF WILDERNESS
DEFENDERS/BLUE MOUNTAINS
BIODIVERSITY PROJECT;
NORTHWEST ENVIRONMENTAL
DEFENSE CENTER,

IBLA No.:

Appellants,

v.

EDWARD SHEPARD, BLM State Director
of Oregon/Washington; BUREAU OF
LAND MANAGEMENT, UNITED
STATES DEPT OF INTERIOR,

Respondents.

**STATEMENT OF REASONS FOR
APPEAL OF FEIS AND ROD FOR
VEGETATION TREATMENTS USING
HERBICIDES ON BLM LANDS IN
OREGON.**

Introduction

On October 1, 2010, BLM State Director for Oregon signed the Record of Decision (ROD) for the “Vegetation Treatments Using Herbicides on BLM Lands in Oregon,” based on the Final Environmental Impact Statement (FEIS) of the same name (hereinafter “ROD” or “FEIS” or “herbicide plan”). Appellants League of Wilderness Defenders/Blue Mountains Biodiversity Project (“BMBP”) and Northwest Environmental Defense Center (“NEDC”) (referred to either individually or as “Appellants”) sent a timely Notice of Appeal, pursuant to BLM appeal regulations, 43 C.F.R. Part 4 and Form 1842-1. In a November 19, 2010 to the Board of Land Appeals the Oregon BLM acknowledged the timely receipt of appellants notice of appeal and noted that appellants had until December 1, 2010 to submit their statement of reasons. The following document constitutes Appellants’ Statement of Reasons, pursuant to 43 C.F.R. § 4.412.

BLM manages 15.7 million acres, or about a quarter of all Oregon lands, thus a vast increase in chemical use has the potential to very significantly harm the state. FEIS at 4. BLM Oregon is not required to increase herbicide use in Oregon under the “Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States” Programmatic Environmental Impact Statement (PEIS). PEIS at 1-4, 1-5. Despite this, the ROD and FEIS at hand only look at a subset of alternatives, based on the PEIS, and fail to consider increasing the efficacy of non-herbicide methods and prevention measures. The PEIS explicitly did not focus on restricting or limiting resource degrading land use, but this is exactly the type of balancing decision that BLM is meant to make at the local level, in accordance with the Federal Land Policy and Management Act.

BLM claims that all possible non-herbicide and prevention measures are being employed, but supplies no data to show that these methods are being employed as effectively as possible. Without more stringent prevention measures, BLM will be stuck in a perpetual fight with encroaching invasive species, always treating the symptoms of the root disease. Appellants understand the adverse effects of invasive species on native ecosystems, and understand the need for herbicide use in some cases. However, Appellants strongly advocate for a more precautionary approach to toxic chemical use, and an actual reduction over time of herbicide use on public lands. Appellants firmly believe that without appropriate and effective prevention measures on ground-disturbing activities that spread invasive plants, the problem will continue to grow, and poisoning the earth with herbicides will only do more harm than good in the short and long term.

The selected alternative proposes to increase herbicide use nearly *4-fold*.¹ This increase is only estimated, however, because no caps on herbicide use are mandated by this decision, and the actual application could be much higher. Part of this increase would be for invasive weeds, but much of the proposed herbicide use is for native vegetation that is already effectively managed with non-herbicide methods. FEIS at 333, ROD at 20. Appellants are most concerned with this aspect of the chosen alternative. BLM claims that it is necessary to allow herbicide use for native vegetation on rights-of-way, administrative, and recreation sites to save money, but Appellants feel strongly that it is inappropriate to drastically increase herbicide use on the public

¹ ROD at 8, FEIS at 469 (reporting about 12,000 acres of herbicide annually since 1984 injunction), *but see* FEIS at 40 (estimating that herbicide use in no action alternative is 16,700 acres annually). The documents do not appear to agree on the current level of herbicide use on BLM lands, and the increase predicted is just an estimate, actual acreage could be much higher, as there are no caps on annual acreage.

lands just to save a few bucks. The dollars supposedly saved will not necessarily be tax-payer dollars, as this alternative allows any private industrial energy developer or other resource extractor operating on public lands to spray herbicides at will. FEIS at 31 (examples of sites under Alt 4 include oil and gas production and storage, geothermal, wind, solar production, mines, power lines, pipelines, etc).

Most of the proposed chemicals have not been used on BLM lands in Oregon for over 20 years or have never been used, so this herbicide plan is a very new development and a precautionary approach is warranted. FEIS at xx (Oregon is unlike the other western states in the PEIS for this reason). Site-specific analyses will undoubtedly tier to this FEIS, so an in-depth analysis of the wide-ranging impacts of this vast increase in chemical use is required. Stricter mitigation measures are necessary, accompanied by an explanation of how they will work to prevent the harms of chemical spraying.

Appellants also strongly disagree with the choice in all three action alternatives to use aerial spraying on the Eastside but not the Westside of Oregon. As will be discussed further below, Eastside populations and ecosystems are not second-class citizens, and deserve the same protections as the West. BLM suggests that due to higher opposition on the Westside, toxic chemical spraying from above is ill advised, whereas the public on the Eastside is in favor of aerial application. *E.g.* FEIS at 46. Did BLM take a poll of the general population on the Eastside? Or more likely, the Eastside population is wholly unaware of this plan and BLM has only spoken to select ranchers and others with a vested economic interest in invasive species reduction by herbicide on BLM lands. Environmental and human health concerns connected with herbicide aerial spraying may be slightly different from east to west, but the concerns are there nonetheless. In any case, such a decision should not be based primarily on public perceptions or opinions. Residents and ecosystems on the Eastside should not be subjected to the additional risks associated with aerial spraying and additional types of herbicides simply because a higher percentage of folks on the Eastside are supposedly willing to accept such risks.

The ROD and FEIS at issue are inadequate under various environmental laws and the decision to drastically increase toxic herbicide use over all of Oregon without adequate consideration of effects and prevention measures is arbitrary and capricious under the Administrative Procedure Act, 5 U.S.C. § 551 *et seq.* Appellants request that the current ROD be withdrawn, and the FEIS supplemented with required information. Any new decision regarding herbicide use on BLM lands in Oregon should comprehensively look at prevention measures and ways to increase effectiveness of non-herbicide methods, discuss a wider range of alternatives in detail, and comply with all applicable environmental laws.

STATEMENT OF STANDING

Appellant BMBP commented on the Draft Environmental Impact Statement for “Vegetation Treatments Using Herbicides on BLM Lands in Oregon,” as well as the 2007 “Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States” Programmatic Environmental Impact Statement, to which this Oregon FEIS is tiered. League of Wilderness Defenders is a nonprofit environmental advocacy organization dedicated to the conservation of the natural ecosystems of the Pacific Northwest and the native flora and fauna they harbor. The mission of Blue Mountains Biodiversity Project is to protect and restore the biodiversity of the Blue Mountains region of Oregon and Washington and to educate the public about threats to forest ecosystems in Eastern Oregon. BMBP and its members actively

participate in governmental decision-making processes on public lands, including BLM lands, throughout Oregon. BMBP's members use BLM lands to hike, camp, bird watch, view wildlife, photograph scenery and wildlife, and engage in other vocational, educational, scientific observation, and recreational activities. BMBP incorporates by reference previous comments on the 2007 "Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States" Programmatic Environmental Impact Statement (PEIS), to which this Oregon FEIS is tiered, and our appeal of the Region 6 Forest Service PEIS on Invasive Plant management (attached), which was used for risk assessments for this Oregon BLM Final EIS (FEIS). BMBP also incorporates by reference and attachment its comments on the Draft EIS for this project.

Appellant NEDC also commented on the Draft EIS in this appeal. NEDC is a non-profit, public interest organization dedicated to preserving, protecting, and improving the natural environment in the Pacific Northwest. NEDC is based in Portland, Oregon, and has been working since 1969 to protect the environment and natural resources of the Pacific Northwest by providing legal support to individuals and grassroots organizations with environmental concerns and engaging in litigation independently or in conjunction with other environmental groups. NEDC and its members participate in education, public outreach, and commenting upon proposed agency actions. The members of NEDC recreate in Oregon's BLM land and derive educational, scientific, aesthetic, recreational, spiritual and other benefits from the protection of BLM land and its biodiversity. NEDC incorporates by reference and attachment its comments on the Draft EIS for this project.

STATEMENT OF REASONS

I. VIOLATIONS OF NATIONAL ENVIRONMENTAL POLICY ACT.

The ROD and the FEIS violate the National Environmental Policy Act (NEPA) and its implementing regulations. National Environmental Policy Act of 1969, 42 U.S.C. §§ 4321–4370e (2000). The BLM failed to analyze a reasonable range of alternatives, failed to adequately consider environmental impacts, and failed to adequately analyze or inform the public of the bases for their assertions, in violation of NEPA. *See* 40 C.F.R. §§ 1502.14, 1502.16, 1502.24, 1508.7, 1508.27. Consequently, the FEIS and ROD are arbitrary and capricious in violation of the Administrative Procedure Act. Administrative Procedure Act, 5 U.S.C. §§ 701–706 (2000)

A. Purpose and Need

NEPA implementing regulations require agencies to describe the underlying purpose and need to which the agency is responding when proposing alternatives. 40 C.F.R. § 1502.13. When writing this purpose and need statement, the agency may not so narrowly construe the purpose and need that it restricts otherwise reasonable alternatives. As the court in *Nat'l Parks and Conservation Ass'n v. BLM* explained, BLM may not define the purpose and need so narrowly that it forecloses a consideration of a reasonable range of alternatives, nor in such a way that only one alternative would accomplish the goals of the agency action. 606 F.3d 1058, 1070-72 (9th Cir. 2010). *See also Davis v. Mineta*, 302 F.3d 1104, 1119–20 (10th Cir. 2002)

(reasoning that although an agency may reject alternatives that do not meet the purpose and need of a project, it may not define the project so narrowly that it foreclosed a reasonable consideration of alternatives); *Simmons v. U.S. Army Corp* 120 F.3d 664, 669 (7th Cir. 1997) (an agency cannot narrowly write the purpose and need so as to define away competing reasonable alternatives).

The BLM has too narrowly construed the purpose and need of this plan towards herbicide use, and thus constrained a reasonable range of alternatives. While BLM talks generally about the need to control noxious weeds, invasive plants, and even native vegetation, the answer is already supplied within this purpose and need — an enormous increase in herbicide use. The description of the need is already skewed to herbicide use and against non-herbicide methods as it concludes without support that they are ineffective. FEIS at 6. BLM claims that there is “no effective means to control” many weeds, but refuses to consider preventing their spread or increasing funding and use of effective non-herbicide methods. *Id.* BLM exaggerates the weed problem by claiming 1.2 million acres of the 15.7 million that BLM manages are infested with noxious weeds “at some level,” then admitting in a footnote that this ranges from monocultures to just a few individual plants per acre (meaning that the scope of the problem is much smaller than 1.2 million acres). FEIS at 7. While appellants recognize the danger posed by invasive and noxious plants, the problem should not be overstated to accommodate increased herbicide use. A cost-benefit analysis is implicit here; the lower economic cost of herbicide use versus the environmental costs of toxic chemicals, as well as the potential damage caused by invasive plants versus the cost of limiting resource-degrading uses. Herbicide use is not be the only factor in this analysis. Prevention of the root problem is key to an ultimately successful invasive plant control program. The invasive plant problem will not be adequately controlled or ended without a thorough prevention plan, with emphasis on and prioritization of prevention of invasive plant introduction and dispersal. In addition to invasive and noxious weed control, BLM also claims it is necessary to increase toxic chemical use on *non-invasive and native* plants, not for ecosystem improvement, but for power lines, pipelines, and right-of-way developments. FEIS at 7. Appellants feel strongly that this type of vegetation management does *not* provide a compelling reason to drastically increase herbicide use in Oregon. BLM concludes that there is an underlying need for “more effective vegetation control measures,” which quickly becomes more *herbicides*. FEIS at 7. BLM claims that all other non-herbicide methods are being used to the “maximum extent practicable” and therefore over a dozen more herbicides on thousands more acres are necessary. However, as already mentioned, adequate prevention measures are not being used, and the failure of non-herbicide methods is often due to a failure to adequately follow up and repeat treatments (which is also required of herbicides). A lack of funding for non-herbicide methods may also be to blame, however BLM has already made it clear that they would not use additional funds to employ safer methods, but rather spend it on more toxic chemicals. FEIS at 36. Appellants also find it especially perilous that one purpose of this herbicide use is to achieve habitat goals for federally listed or other sensitive species, considering the risk to sensitive or listed plants and wildlife from toxic chemical use. FEIS at 10.

BLM is making a value judgment; because resources are limited and invasive control may not be possible on every single acre, toxic chemicals should be vastly increased to meet all weed and native vegetation-killing needs. Higher cost or less plant control is preferable to Appellants and the public than more herbicide use.

Some of the purposes listed do not justify use of toxic chemicals, and unduly limit the range of reasonable alternatives. Appellants do not believe that herbicides are needed to manicure various human developments, when manual control is already being effectively utilized. ROD at 20. Invasive and noxious plants are one thing – they actually do damage to native ecosystems – but native plants that “encroach” on human developments are not a reason to increase toxic chemical use.

Another purpose espoused is management of native sagebrush habitat through removal of junipers, which have been long blamed for habitat degradation despite a lack of scientific evidence and a failure to take into account historic expansion and contraction of juniper populations. See A. Joy Belsky, *Viewpoint: Western juniper expansion: Is it a threat to arid northwestern ecosystems?* 49 *Journal of Range Management* 53, 54 (Jan. 1996). Juniper has often been the scapegoat for the loss of sage grouse and other sensitive wildlife habitat, when the true cause is livestock grazing, roads, and other human development.

Another purpose that directly implicates herbicide use is Purpose #5, which states that BLM needs to spray the same herbicides as private and neighboring landowners. FEIS at 10-11. Appellants believe that this reasoning is flawed; just because private landowners chooses to use one control method it does not follow that public lands ought to be managed in the identical way. Indeed public lands are usually being utilized or managed for distinctly different purposes and their management or use must comply with applicable conservation and sustainability requirements that are often not compatible with increased herbicide use. Further, BLM should be the model for neighboring landowners, and using the most environmentally sound and practical methods, including prevention of weed introduction and dispersal.

BLM claims that more herbicides are necessary to reduce the risk of herbicide use on wildlife, plants, soil, water, and humans. FEIS at 11. While safer herbicides are desirable, and weed resistance is problematic, this increase in herbicide selection will not reduce risks when some of the most toxic and easily dispersed off site herbicides are still available for use, such as 2,4-D, diquat, diuron, bromacil, tebuthiuron, triclopyr, picloram, dicamba, and others. Some of the newer herbicides that are claimed to be “safer,” such as imazapic and imazapyr, are in reality just less tested, and require a precautionary approach.

Finally, saving money is a listed purpose for this program, because of the claimed difference in effectiveness between herbicide and non-herbicide treatments. While this efficacy difference may be real on some sites, manual and mechanical methods can be very effective for small infestations, which make up many of the sites to be treated. If the purpose is efficiency and effectiveness in the long term, then the focus cannot be just on herbicides, but on a scaled approach and effective *prevention* of the root causes of invasive and noxious weeds.

B. Inadequate Range of Alternatives.

NEPA requires the BLM to “study, develop, and describe appropriate alternatives to the recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources as provided by section 102(2)(E) of the Act.” 40 C.F.R. § 1501.2(c). The requirement to evaluate all reasonable alternatives is not simply procedural; the Council on Environmental Quality (CEQ) has stated that the alternatives analysis is “the heart” of the NEPA analysis, the purpose of which is to “provid[e] a clear basis for choice among options by the decision maker and the public.” 40 C.F.R. §1502.14; 42 U.S.C. §§4332(2)(E); 40 C.F.R. §1507.2(d). Thus, the BLM must “rigorously explore and objectively evaluate all

reasonable alternatives” to the proposed action. *City of Tenakee Springs v. Clough*, 915 F.2d 1308, 1310 (9th Cir. 1990). Nonetheless, the BLM failed to evaluate several alternatives that were not only reasonable but also more environmentally protective.

In the ROD, BLM admits that the selected action alternatives in this FEIS are not representatives of a “reasonable range” of alternatives, but rather a subset of the selected alternative in the 2007 PEIS. ROD at 29. While that PEIS may have increased the number of herbicides potentially available (to 17 western states) it did not require Oregon BLM to begin using any of those. It should be seen as a ceiling, whereas management of BLM lands in Oregon could certainly use *less* herbicides than other western states, responding to the needs of the ecosystem and to public concerns. If the range of alternatives is so limited in scope to subsets of one alternative in an older PEIS, then a reasonable range has *not* been identified and discussed in detail.

BLM makes it very clear that the limited purpose and need resulted in alternatives that only increase herbicide use, and do not vary significantly. FEIS at 27 (these alternatives would only add herbicide treatments). The “no herbicides” alternative is not seriously considered; in fact the name of this alternative was changed to “Reference Analysis” to show that it is not considered viable from the start. FEIS at 23. Similarly, the No Action alternative is presented merely to comply with CEQ regulations and is not expected to meet the need. FEIS at 30. BLM assumes that only alternatives that have herbicide applications as the primary control mechanism can meet the need to control weeds, instead of considering increased prevention measures and re-allocation of funding to allow more non-herbicide methods to be successful. We are left with 3 action alternatives that do not really differ significantly; all allow a large increase in the number of herbicides available, all increase the acreage for which herbicides may be used, and all include aerially spraying east of the Cascades. *See* Table 2-5 for slight differences between alternatives. Alternative 5 is the most extreme scorched earth increase, seemingly included to make Alts 3 and 4 seem more reasonable, and includes all possible herbicides for all possible reasons, and aerial spraying east and west of the Cascades.

Further, it is grossly misleading to call Alternative 4 the “environmentally preferable” alternative. ROD at 26. Alternative 3 is clearly the alternative that best protects the environment and human health from herbicides, as well as providing as effective control of invasive species. The difference between Alt 3 and 4 is that 4 allows spraying of native vegetation, *not* for ecosystem or habitat improvement, and includes herbicides that pose a high risk to human health under some conditions. Alternative 4 was created to help right-of-way owners and other using BLM lands to save money by spraying toxic chemicals rather than using already effective manual and mechanical methods. This is *not* environmentally preferable under any interpretation of NEPA or CEQ regulations.

1. All Alternatives Include Aerial Spraying on Eastside.

Appellants are adamantly opposed to aerial spraying on the Eastside and feel that it is ridiculous to offer less protection to Eastside ecosystems. The reasons given for forgoing aerial spraying on the Westside also apply in the East: the Eastside has many streams, seeps, and springs – many of which are unmapped or undetectable from the air – that could be affected, tall trees that could increase drift height, checkerboard land patterns, and vulnerable fish, amphibians, plants, other wildlife, humans, crops, and soils. In fact, many of the Eastside ecosystems are particularly vulnerable and fragile, and water is more precious. The ROD and

FEIS fail to give adequate explanation as to why the Eastside may be aerially sprayed with three additional chemicals, despite its fragile ecosystems.

2. Alternatives Eliminated From Study Should Have Been Incorporated Into Action Alternatives.

No one method alone is enough to deal with a problem like invasive plants – the solution calls for a variety of approaches and comprehensive planning that considers all those approaches together in the same planning documents. BLM cannot ignore approaches that might work merely because they would be ineffective in isolation. Moreover, this is an FEIS for the entire state of Oregon, including many different climates and specific sites, which implicate the need for a more varied and comprehensive approach, rather than a more limited look at only herbicides. Instead of incorporating various techniques or reduced herbicide approaches into the action alternatives, BLM treats these options as mutually exclusive and summarily dismisses them. By increasing the number of herbicides available, BLM could and should have included detailed alternatives that would use herbicides more effectively only when needed, reduce herbicide use overall, and prevent further introduction and dispersal of invasive plants.

i. *No ALS-Inhibiting Herbicides.*

BLM refused to consider an alternative that eliminated any or all of the ALS-inhibiting herbicides from use, despite evidence from BLM's own risk assessments that some are more harmful across the board. FEIS at 34. It is interesting that these herbicides are identified as the *least* harmful (as a group) than the other herbicides being proposed, and yet we have seen the devastation that can occur from aerial application of one ALS-inhibitor, sulfometuron methyl or Oust.² FEIS at 34. BLM includes sulfometuron methyl for use in eastern Oregon, despite EPA proposed limits that would limit its use in drier areas. BLM is only able to point to imazapic and imazapyr as positive examples of requiring less use than currently condoned herbicides, however other ALS-inhibitors, such as metsulfuron methyl appear redundant and apparently more toxic. *Id.* BLM claims that all the herbicides in this group are needed to effectively control perennial peppergrass, Hoary cress, and salt cedar, but gives no information on what these species effect, how seriously, their current extent in Oregon and what, if any, non-herbicide treatments have been tried or could be effective. *Id.* This lack of information does not justify the use of these powerful herbicides, much less their broadcast or aerial spraying.

ii. *No Aerial Spraying.*

An alternative that would not include any aerial spraying was not even included for detailed study, despite the environmental risks associated with aerial spraying. FEIS at 34. Other herbicide plan EISs have seen fit to include a detailed alternative that eliminates aerially spraying, but apparently dousing the earth in toxic chemicals from a flying craft is necessary to meet this FEIS's purpose and need, and there is no other conceivable way to deal with some invasives. *See* Forest Service, Wallowa-Whitman National Forest Invasive Plants Treatment Plan FEIS and ROD, April 2010 (including an action alternative with no aerial spraying).

² The issues is Idaho make it clear that even when BLM complies with herbicide labels, toxic chemicals can linger in soils and drift off-site, causing massive damage to crops and livelihoods. <http://www.claimsjournal.com/news/west/2009/08/25/103289.htm>

Appellants are adamantly opposed to aerial spraying, and find it obnoxious that this more harmful application method is slated for eastern Oregon, while BLM chooses to spare western Oregon. The small amount of acreage that potentially could go untreated might be a small price to pay to forgo the effects of aerial drift, but the public will never get the benefit of that cost-benefit analysis. BLM should have included a no-aerial spraying feature in one or several alternatives analyzed in detail.

iii. *Prevention Measures*

Prevention is a critical issue in invasive plant control, but is dismissed and de-prioritized in this FEIS. In the purpose and need section of the FEIS, BLM claims that prevention is emphasized for control of noxious weeds, and yet fails to discuss, analyze, or incorporate adequate prevention measures as part of this plan to drastically increase herbicide use. FEIS at 6. The effective control of invasives, or even supposedly ‘non-desirable’ native plants, requires a truly comprehensive plan that addresses and considers all aspects of the problem. The BLM however has never even considered such a comprehensive plan at the regional or state level and the BLM insists that it can address this critical issue in a piecemeal fashion by producing an FEIS that ignores prevention measures. Only an analysis and plan that addresses both the causes and control of invasive species can have any chance of actually reducing or eliminating invasive plant infestations. Addressing only controls, and emphasizing herbicide controls, will simply and inevitably lead to the use of more and larger amounts of herbicides. That is not an effective or sustainable approach. BLM insists that it is outside the purview of this FEIS to consider *any* change in land use on public lands in order to prevent invasive and noxious weed introduction and spread, even though ground-disturbing activities (like timber harvest, grazing, and OHV use) are known to contribute to the problem. FEIS at 35.

The need identified in the FEIS is to control and stop the spread of invasives. FEIS at 6. Failure to provide a full analysis of preventive measures when prevention is a stated need of the project equates to an insufficient alternatives analysis. *See Blue Mountains Diversity Project v. United States Forest Serv.*, 229 F.Supp.2d 1140, 1146 (D. Or. 2002) (“The Decision Notice’s reference to prevention in the mitigation measures,” without more rigorous analysis of prevention measures in the action alternatives, was “inadequate to fulfill defendants’ obligations to weigh an obviously reasonable alternative that promoted preventative measures for controlling weed infestation”). Prevention of the introduction and spread of invasive plants is obviously a reasonable alternative, and adequate prevention measures should have been analyzed in detail in multiple alternatives.

This plan to increase the amount of toxic chemical usage only treats the symptoms of a larger problem, and clearly current prevention measures are inadequate to stem the root causes of invasive plants. BLM only identifies project actions to prevent invasive weed spread on moderate or high risk projects, rather than all projects, and fails to require mandatory actions that would help prevention, such as weed-free feed for all animals, including livestock. BLM claims that grazing allotment owners have an incentive to manage their lands for invasive weed prevention, and while this may be true, in practice this is not a reliable method of invasive plant prevention. FEIS at 35. Appellant Blue Mountains Biodiversity Project has observed this lack of incentive or awareness on the part of allotment owners – livestock are most definitely a vector.³ In fact, the correlation between invasive plant establishment and native species

³ For example, Appellant has observed Dalmatian Toadflax growing only in cowpies along the John Day River. BLM admits that livestock are a vector variously in the FEIS, at 125 (historic grazing since the

extinction may not even rise to the level of causation. Rather, the true contributors to native ecosystem degradation are human activities, such as livestock grazing and timber extraction.⁴

iv. *Increased Non-Herbicide Methods*

BLM dismisses increased use of non-herbicide methods because apparently all those methods are already being used, as funding allows. FEIS at 36. However, the efficacy of non-herbicide treatments can be affected by a lack of consistency or appropriate timing. And, as BLM makes clear at the end of the same page, even if there were more funding, BLM would not use it on chemical-free methods, but rather “accomplish more” with the money. Thus it is not necessarily a lack of funding that makes non-herbicide methods less effective, its BLM’s preference for herbicides and funding decisions that reflect as much. In this short paragraph dismissing an alternative with more effective use of non-herbicide methods, BLM fails to provide any evidence showing *why* non-herbicide methods are ineffective. *Increasing* the use of and funding for non-herbicide methods is consistent with this plan’s need and public concerns over herbicide use on public lands. Instead of a comprehensive study of all the various ways to control and prevent invasives, BLM focuses narrowly on herbicides, ignoring the ways in which different treatment options should be integrated. Paying lip service to Integrated Management does not fulfill the obligation to look at all the reasonable ways to deal with a problem. Not only does BLM fail to discuss how a decrease in resource-degrading activities (like grazing) could stop the introduction and spread of invasives, but BLM fails to discuss passive restoration in any meaningful sense. One of the greatest actions that can be taken to restore sagebrush habitat, for example, is a change in livestock management and decrease in intensity and concentration of grazing. David Pyke, *Restoring And Rehabilitating Sagebrush Habitats*, USGS Studies in Avian Biology, *11-15 (2010 – publication forthcoming).

3. BLM Failed to Analyze An Alternative That Dropped The Most Harmful Herbicides.

In addition to more comprehensive prevention analysis and measures, BLM should have analyzed an alternative that dropped the herbicides most likely to adversely affect non-target plants, wildlife, water quality and species, soils, and human health. For small infestations, passive restoration or manual/mechanical methods are very often effective and should be used as a first resort. FEIS at 73. When herbicides are necessary (due to site conditions or type of plant), a handful of the proposed active ingredients would be effective for the vast majority of invasive weeds. Based on the information in the FEIS, herbicide use may be restricted to the least toxic and least persistent and mobile active ingredients, namely clopyralid, glyphosate (non-POEA formula), imazapic, imazapyr, and very limited uses of fluridone for aquatic invasives. Target Species and Recommended Herbicide Controls, FEIS at Table A9-2, p.617-23. These

1930’s introduced non-native plants and degraded the environment) & 132 (invasion is accomplished through various routes, including livestock, hay and feed, and infestations begin at livestock concentration areas).

⁴ Jessica Gurevitch and Dianna K. Padilla, *Are Invasive Species a Major Cause of Extinctions?*, *TRENDS in Ecology and Evolution*, Vol.19 No.9, pp. 470-74, September 2004 (for example, 3 and 1/2 times more plant species have been affected by livestock grazing and trampling than by plant or animal invasive species).

herbicides alone would allow for effective control, with non-herbicide methods, for all but 17 of the 226 invasive and native plants proposed for control. Of these 17, 4 appear to be native plants, which Appellants are opposed to controlling with herbicides. 3 have commercial value (St. John's wort, baby breath, and horehound) so permits could be issued for the gathering of these plants. Appellant BMBP only identifies one invasive species remaining that would pose a threat, Dalmatian toadflax, and this could be controlled through more application of non-herbicide methods (more consistency and more funding) or through a very limited exception for additional herbicide use if non-herbicide use fails. Because 2,4-D, bromacil, dicamba, chlorsulfuron, diflufenopyr (with dicamba), diquat, diuron, metsulfuron methyl, sulfometuron methyl, picloram, tebuthiuron, and triclopyr are more toxic and do not appear necessary, they should be dropped from use or consideration. One benefit of reducing the number of redundant herbicides available would be a reduction in largely unknown risks of synergistic or cumulative effects from multiple applications on the same site. FEIS at 114 (the effects of chemical mixing are mostly unidentified, especially due to the various "inert" ingredients that can interact in unknown ways). BLM should develop an alternative that uses only the safest herbicides to adequately inform the public of that option, which would be better for the environment and human health, but still update BLM's ability to use herbicides to control invasives.

If BLM simply increases the number of herbicides and acreage for use, this will only incentivize the spray and walk away attitude, and is unlikely to effectively curb invasive plant spread in the long run. The herbicide plan requires overall direction on this programmatic scale for a stepped up approach (like using herbicides as a last resort with more effective use of non-herbicide methods) and specific goals for herbicide reduction over time. If BLM keeps allowing every ground-disturbing, resource-degrading activity, including chronic ones like livestock grazing, then the problem of invasive plants will continue to spread. Increasing toxic chemical use is unlikely to effectively stop this spread-more, spray-more cycle, and the effects to the environmental and human health are potentially very damaging. Before implementing this plan at any local level, BLM must adequately develop alternatives that address ways to more effectively use prevention and non-herbicide methods, consider using a minimal number of the safest chemicals, and the lowest risk application methods (no aerial spraying).

C. Impacts – Direct, Indirect and Cumulative.

Under NEPA, BLM is required to address and analyze direct, indirect, and cumulative effects of its proposed alternatives. 40 C.F.R. §§ 1502.16(a) and (b) and 1508.8 (direct and indirect impacts); 40 C.F.R. § 1508.7 (cumulative impacts). CEQ regulations define cumulative impact as "impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions." *Id.* "Cumulative impacts can result from *individually minor* but collectively significant actions taking place over a period of time." *Id.* (emphasis added). Recent case law clarifies that an adequate cumulative effects analysis "must be more than perfunctory; it must provide a useful analysis of the cumulative impacts of past, present and future projects." *Kern v. U.S. BLM*, 284 F.3d 1062, 1075 (9th Cir. 2002). Moreover, a valid analysis requires "some quantified or detailed information;...[g]eneral statements about possible effects and some risk do not constitute a hard look...." *Ocean Advocates v. US Army Corps*, 361 F. 3d 1108, 1128 (9th Cir. 2004)(amended

opinion, 402 F.3d 846, 868 (2005)). Without detailed or quantified information, “neither the courts nor the public, in reviewing [a] decision, can be assured that the [agency] provided the hard look that it is required to provide.” *Neighbors of Cuddy Mountain v. U.S. Forest Serv.*, 137 F.3d 1372, 1379 (9th Cir. 1998).



1. Direct and Indirect Impacts

BLM fails to adequately discuss direct and indirect impacts to the environment and human health. There is a lack of adequate disclosure of short-term and immediate impacts to non-target vegetation and wildlife, which will occur despite BLM’s dismissal. As to wildlife, the FEIS fails to analyze impacts to particularly vulnerable species, like amphibians, reptiles, and mollusks. Possible harm is admitted, FEIS at 246, but dispensed with quickly, and no quantitative data is provided. If herptiles will be harmed by riparian and aquatic herbicides, but also upland terrestrial herbicides (as turtles and frogs use habitat several hundred feet or more from water during their lifetimes), how will spraying in all kinds of habitat affect these species? If there is mitigation planned, like not spraying adjacent areas and leaving habitat refugia, then what are they and how will they specifically reduce this potential harm? Because amphibians are on a sharp decline, BLM should not spray herbicides in water and restrict use in dry riparian buffers, especially during winter hibernation or estivation period to more fully protect amphibians and sensitive mollusks – or preferably, use non-herbicide control methods in these areas. Rare species (like pygmy rabbits and sage grouse) are especially vulnerable to habitat disturbances and individuals being harmed. The FEIS downplays potential increase in stresses to these rare populations, asserting that herbicides can be used to improve habitats and that manual/mechanical methods also disturb. However, according to BLM these manual/mechanical methods are already being used as much as possible, so really the FEIS should address how *adding* toxic chemicals will increase stresses.

In addition to effects on wildlife, the FEIS fails to adequately deal with direct effects of herbicide use on humans, particularly those that gather edible plants on BLM lands, including native people. All action alternatives include herbicides that pose moderate risk to human health, and the preferred alternative includes *high* risk chemicals, including 2,4-D, bromacil, diuron, and tebuthiuron. Appellants feel that BLM should discontinue and not begin any use of herbicides that pose a threat to human health. Appellants are especially disconcerted that most use of

bromacil, diuron, and tebuthiuron would occur on the Eastside, given that many people, (including Appellants' members, native people, low-income people, Hispanic workers and Asian mushroom pickers), use BLM lands to live, work, gather medicinal and edible plants (berries, mushrooms, arnica flowers, nettles, Arrowleaf balsam root, etc.) and recreate. The spraying of native vegetation is very concerning, as this is exactly the vegetation that is gathered for ingestion. FEIS at 333. The FEIS fails to discuss what the direct effects of handling or ingesting herbicide contaminated plant material might be, nor does it discuss the indirect effect of area closures to these types of users.

Bizarrely, BLM asserts that all but six of the proposed herbicides will have “zero risk” to human health under any scenario. ROD at 22 (of course, the 6 described could potentially harm humans). Appellants feel that it is entirely disingenuous of BLM to assume that these chemicals pose “zero” risk to human health, when history has shown us that new information about a drug or chemical often reveals its harmful qualities only after decades of use. For instance, EPA is phasing out use of the pesticide endosulfan, because of its previously unknown risks to farm workers and wildlife. See “U.S. Agency Phasing Out Insecticide Endosulfan,” <http://www.worldwatch.org/node/6451>. A group of herbicides recently taken off the market are organic arsenical herbicides, which EPA now knows can transform into a dangerous inorganic form of arsenic and subsequently be transported to drinking water. EPA, “EPA Finds Organic Arsenical Herbicides Ineligible for Reregistration,” http://www.epa.gov/oppfead1/cb/csb_page/updates/organic-herbi.htm. These newer herbicides may seem “safe” now, and with existing science the risk may look low; however, given that scientific knowledge changes constantly, it is illogical, dangerous, and a violation of NEPA to claim that weed-killers have “zero” risk to humans.

Effects to water quality are another concern. The preferred alternative includes many herbicides that are known or suspected groundwater contaminants, and drift contamination is increasingly likely the more broadcast and aerial spraying occurs near water bodies. *E.g.* FEIS at 145 (picloram has high potential to leach into groundwater); FEIS at 182 (bromacil leaches in sandy soils); FEIS at 183 (dicamba is highly mobile and may contaminate groundwater); FEIS at 184 (tebuthiuron has been detected in groundwater). BLM must adequately address effects to water quality both directly from herbicide use, and cumulatively with other water quality degrading actions.



2. Cumulative Impacts

BLM consistently relies on the fact that herbicide use from this project will only be about 1% of the total use around the state to show that the cumulative impacts will be minimal. FEIS at 49, 115, 355 (even though herbicide rates on immediately adjacent land are unknown and therefore small watershed level cumulative effects are impossible to quantify). However, this reliance has many flaws. First, BLM admits that the reporting system in Oregon is flawed and the total amount of herbicides accounted for may not be accurate. Additionally, household uses weren't included, a potentially significant amount. FEIS at 118. Second, it does not matter if BLM proposes to increase total herbicide use in Oregon by only a small amount; the point of the cumulative impact analysis is to determine the impacts of all those small additions together. As the regulations say, an impact may be minor or insignificant on its own, but when combined with all other factors, can result in collective significance. BLM must look at its proposed increase in herbicide use not only in the context of other herbicide use in Oregon, but also in conjunction with all other environmental stressors on BLM lands, such as grazing, timber, mineral extraction, OHV use, etc. It is disingenuous to claim that because BLM would not be adding a large percentage of herbicide use to Oregon that its proposed 3-fold increase is unlikely to have cumulative impact. Further, Appellants believe that agencies like the BLM should be setting the tone for private landowners in moving away from destructive practices like toxic chemical use, not increasing such an incentive by joining in, and the percentage of overall use in Oregon is irrelevant.

A valid NEPA cumulative impacts analysis requires that the BLM do more than consider the cumulative impacts of their proposed herbicide use along with other current and future herbicide applications. "Cumulative impacts" are the impacts, considered together from all types of activities and not just similar activities. The FEIS acknowledges in various places that BLM lands in Oregon are or have been degraded by activities such as grazing, logging and dam building, see, e.g. FEIS at 239, and the FEIS acknowledges that the herbicide applications could themselves degrade or harm aquatic or wildlife resources. See, e.g., FEIS at 240. But what the FEIS does not ever do, even though it is specifically required by NEPA, see 40 C.F.R. § 1508.7, is consider the cumulative or combined impact of the proposed herbicide applications and the many other activities on BLM lands or nearby private, state or USFS lands, that degrade or harm aquatic or wildlife resources. For example, the FEIS acknowledges that many of the streams on BLM lands in Oregon are classified as "impaired" in terms of water quality, with temperature being the most common impairment. See FEIS at 189. But the FEIS never considers or even acknowledges the possibility that there could be cumulative impacts when temperature impaired streams are also polluted with herbicides. Put another way, what impacts could occur to the already stressed fish and aquatic organisms in temperature impaired streams when they are also exposed to harmful herbicide run-offs or residues from the BLM's proposed actions? The FEIS was legally required to, but in fact failed to, address this critical cumulative impacts issue. Temperature or herbicide impacts by themselves may not cause fatal or extremely adverse impacts, but the combined effects of high temperatures and herbicide exposure could be much more significant. The FEIS makes the same error when supposedly addressing cumulative impacts to aquatic and wildlife resources generally, wild horses and burros and ESA listed species. BLM may have consulted FWS and NFMS about specific threats to listed species in Oregon, but BLM has an independent obligation under NEPA to address cumulative impacts broadly to listed species and all wildlife. Cumulative impacts under NEPA are broader than

under the ESA, and to the extent that BLM used consultations as a substitute, the cumulative effects analysis in the FEIS is inadequate. *See e.g. Makua v. Rumsfeld*, 163 F.Supp.2d 1202 (D.Haw. 2001); *Portland Audubon Society v. Lujan*, 795 F.Supp. 1489 (D. Or. 1992). It is absolutely essential for this programmatic FEIS to consider such broad, cumulative impacts because subsequent, site-specific decisions may insist that such broad, or statewide cumulative impacts are beyond the scope of the site-specific analysis.

D. Tiering to Non-NEPA PER Document

While fulfilling its NEPA duties, BLM may not tier to a non-NEPA document. *Kern v. BLM*, 284 F.3d 1062, 1076 (9th Cir. 2002). To the extent that the 17 Western States PEIS tiers to this “Programmatic Environmental Report” (PER), that analysis cannot be used to support this current Oregon PEIS. The PER was never subjected to the NEPA process.

E. Failure to Adequately Explain Why More Environmentally Protective Alternative Was Discarded.

Despite a lack of meaningful difference between the Action alternatives, the BLM failed even to select the more environmentally protective option, with the more precautionary and prudent approach to herbicide use. Alternative 4, the selected alternative, not only increases the number of herbicides available without taking away the most harmful ones, but also increases the uses for which herbicides may be employed, which will result in a large increase in herbicide use all over the state. The BLM failed to adequately explain the reason for this choice, except to say that allowing herbicides for every use, even if non-herbicide methods are effective, was the cheaper option. Appellants do not support saving some money at the expense of native habitats, and the externalized costs of a large increase in herbicide use were not properly weighed in either the ROD or the FEIS. The selected alternative, 4, allows not only more herbicides, but also more uses for those chemicals. One of these is control of *native and non-invasive* vegetation around structures and rights-of-way, listed as a Purpose of the plan. However, the BLM admits in the ROD that current practices for this type of vegetation removal are working, and that Alternative 3 (not allowing herbicide use for native vegetation removal) would continue to satisfy this purpose. ROD at 20. The only reason given for increasing the *uses* to include native vegetation removal was saving money, even though it is admitted that Alternative 4 would increase the use of herbicides in public use areas, thereby increasing risk of exposure to the public (including the elderly, children, and chemically sensitive individuals). ROD at 20, FEIS at 310. An agency is “free to take the most environmentally costly course of action or alternative, so long as the environmental impact is fully identified in the FEIS and the agency determines that ‘other values’ outweigh the impact on the environment.” *Citizens Concerned About Jet Noise, Inc. v. Dalton*, 48 F.Supp.2d 582, 589 (E.D.Va., 1999). *See also Robertson v. Methow Valley Citizens Council*, 490 U.S. 332 (1989). Here, BLM has failed to explain how saving money on native vegetation management (and likely employing fewer people) outweighs the impact on the environment from herbicide spraying in otherwise healthy areas. Controlling invasive plants is one thing – invasives may actually harm native ecosystems- but indiscriminately spraying toxic chemicals where manual/mechanical methods are just as effective is another thing altogether. The “other value” of saving money *does not* outweigh the increased harm to the environment, and BLM has not, nor can it, adequately explain this choice.

Although Appellants feel that none of the alternatives adequately deal with important aspects of invasive species spread, Alternative 3 is the logical choice of the three action alternatives as the least harmful but still possibly effective alternative. Alt. 3 incorporates most of the new herbicides, and would be effective for the same number of state-listed noxious weeds and invasive species as Alt. 4 and cost the same per acre. FEIS at 42, 46. It would reduce estimated weed spread to 7%, only 1% more than Alt.4. *Id.* Alt. 3 meets almost all the purposes, except saving money by spraying native plants in otherwise healthy ecosystems on rights-of-way, administrative sites, etc. Yet, despite the very similar effectiveness of Alt 3 for management of invasive species, it includes lower risk to water quality, wildlife, aquatic organisms and human health. *See* Tables 2-5 & 2-6. It even results in fewer pounds of herbicide applied annually than the current status quo (as represented by the No Action alt.). FEIS at 48. Additionally, Alt. 3 best meets the need to reduce and prevent harms from herbicides to human and environmental health. ROD at 25. Two-thirds of the increase in herbicide use from Alt. 3 to Alt. 4 would be caused by spraying native vegetation (which is again unnecessary) and would target the very vegetation that is gathered by under-represented groups of people. FEIS at 333. BLM utterly fails to explain how saving money on native vegetation management outweighs the potential poisoning of BLM land users, disproportionately affecting under-represented groups.

Despite all the evidence to the contrary in the FEIS, the ROD summarily concludes that Alt. 3 would not control invasive species as well as Alt. 4, and that it would not save as much money. ROD at 25.

F. BLM Failed to Adequately Evaluate Efficacy of Mitigation Measures.

“In evaluating the sufficiency of mitigation measures . . . the court considers whether they constitute an adequate buffer against negative impacts that may result from the activity.” *National Parks & Conservation Ass’n v. Babbitt*, 241 F.3d 722, 734 (9th Cir. 2001). The courts have held that agencies are obligated to detail in an EIS the mitigation measures for a project. *Robertson v. Methow Valley Citizen’s Council*, 490 U.S. 332, 353 (1989). A decision will not be upheld where an agency provides no more than a list of its mitigation measures. *Klamath-Siskiyou Wildlands Center v. U. S. Forest Serv.*, 373 F.Supp.2d 1069, 1085 (E.D. Cal. 2004). BLM claims that mitigation measures from the PEIS will mitigate potential harms from the 3-fold increase in herbicide use, and make Alt. 4 as safe as Alt. 3. ROD at 24. However, the laundry list of measures presented in FEIS Appendix 2 is ambiguous and many measures are not mandatory, leaving open the possibility of not being followed. Further, there is no explanation of how these mitigation measures will actually reduce harms. BLM is required by NEPA to explain mitigation measures, and analyze their efficacy in the context of Oregon and its unique ecosystems, not just list them and conclude that they will work.

II. VIOLATION OF FEDERAL LAND POLICY AND MANAGEMENT ACT

The Federal Land Policy and Management Act (FLPMA) requires BLM to manage public lands “in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values.” 43 U.S.C. § 1701(a)(8). However, with this herbicide plan, BLM is prioritizing money saving over protecting environmental, ecological, scenic and social values of public land. Under FLPMA

Section 302(a), the Secretary of the Department of the Interior must "manage the public lands under principles of multiple use and sustained yield." 43 U.S.C. § 1732(a). "Multiple use" means:

the management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people; ... the use of some land for less than all of the resources; a combination of balanced and diverse resource uses that takes into account the long-term needs of future generations for renewable and non-renewable resources, including, but not limited to, recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific and historical values; ... with *consideration given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or greatest unit production.*

43 U.S.C. § 1702(c) (emphasis added). BLM must balance various uses of public lands, and some continuing uses (i.e.: grazing, logging, OHV use) are degrading the environment and introducing and spreading invasive species. BLM seeks to continue these uses without reduction by taking a more ramped up approach to invasives through herbicide spraying. Certain commercial actions are allowed to continue unabated, and now more toxic chemicals must be used to deal with the problems created. Where is the balancing in that decision? Moreover, the preferred alternative allows for herbicide use just to reduce the costs of certain uses of BLM lands, at the expense of others. Allowing at least a 3-fold increase in herbicide use just to give the greatest economic return does not give proper consideration to relative wildlife and fish, watershed, scenic and scientific values of BLM lands. BLM claims that this herbicide increase is not for timber or grazing, but either directly or indirectly, it absolutely is. If BLM reduced the amount of grazing or put more restrictions in place, the introduction and spread of invasive weeds would be decreased. But because BLM is unwilling to reduce that use of public lands, it now needs to dump more toxic chemicals in an attempt to deal with subsequent invasive plant infestation. Additional, BLM wants to give the go-ahead for unchecked herbicide use on otherwise healthy native plants to save money, clearly prioritizing industrial, resource-extractive uses over natural values.



III. PACFISH/INFISH MANAGEMENT DIRECTION

PACFISH was promulgated in 1995 to stem the “alarming decline” of some Pacific Northwest salmon stocks and to protect good quality anadromous fish habitats, to arrest degradation, and to begin restoration of anadromous fish habitat. *DN/FONSI/EA for the Interim Strategies for Managing Anadromous Fish-producing Watersheds in Eastern Oregon and Washington, Idaho, and Portions of California* (“PACFISH”) at 6. INFISH followed soon thereafter applying the same rationale and standards to protect and preserve aquatic habitat for inland (non ocean-going) native fish such as redband and bull trout that was not covered by PACFISH. *DN/FONSI/EA for the Inland Native Fish Strategy* (“INFISH”) at 1. PACFISH/INFISH contains management direction that amends all Resource Management Plans. INFISH/PACFISH management direction applies to all proposed new projects or activities, such as the herbicide plan, and is in the form of Riparian Management Objectives (“RMOs”) and associated Standards and Guidelines, which generally prevent the degradation of the RMOs. The RMOs and the Standards and Guidelines contained in PACFISH and INFISH are virtually identical (the only exception being the water temperature RMO). However, technically, PACFISH applies to streams bearing only listed anadromous fish (fish that live in the ocean and breed in fresh water) in the project area and INFISH applies to streams bearing resident inland native fish in the project area.

Binding standards and guidelines within PACFISH/INFISH restrict certain activities such as applying herbicides in Riparian Habitat Conservation Areas (“RHCAs”). These RHCAs are portions of watersheds where riparian-dependent resources receive primary emphasis, and management activities are subject to specific standards and guidelines. INFISH at A-4; PACFISH C-6. The binding PACFISH/INFISH standards and guidelines applicable to the herbicide plan are the general riparian area management standards and guidelines that restrict herbicide, pesticide and toxicant application activities in RHCAs. INFISH A-12; PACFISH C-17. Specifically, RA-3 of PACFISH/INFISH states that the BLM must: “Apply herbicides, pesticides, and other toxicants, and other chemicals in a manner that does not retard or prevent attainment of the Riparian Management Objectives and avoids adverse effects on inland native fish (INFISH)/ listed anadromous fish (PACFISH).” INFISH at A-12; PACFISH at C-17.

The Riparian Management Objectives for PACFISH/INFISH are descriptors of good habitat for anadromous and inland native fish. The RMOs contain objectives for four habitat features for forested ecosystems: pool frequency, water temperature, large woody debris, and width/depth ratio. Non-forested ecosystems contain the additional habitat features of bank stability and lower bank angle. The RMOs in PACFISH/INFISH are identical except for the INFISH water temperature habitat feature RMO that contains a significantly lower maximum water temperature (59/48 degrees as compared to 64/60 degrees with PACFISH). See INFISH at A-4; PACFISH at C-6. BLM activities may not retard or prevent attainment of these RMOs.

The FEIS for the herbicide plan merely mentions PACFISH/INFISH standards twice, but fails to discuss any applicable RMOs or standards and guidelines. FEIS at 188, 216. BLM gives no analysis of how the proposed increase in herbicide use (including new herbicides) can be implemented without violating the standards and guidelines, that is, not retarding or preventing attainment of RMOs. Even if this analysis is to be completed at the site-specific level, when pertinent information is available for a given project, that site-specific analysis will be guided by this FEIS. And this FEIS/ROD wholly fails to address PACFISH/INFISH requirements.

Further, BLM is required not to use planned restoration as a substitute for preventing habitat degradation. WR-3, in Watershed and Habitat Restoration, PACFISH at C-18. If BLM does not start seriously working to prevent introduction of invasive species, the problem will not go away, and BLM will be stuck in a cycle of treating only the symptoms with toxic chemicals. Using toxic herbicides to “restore” habitat is not a substitute for preventing further degradation of the precious little habitat remaining by curbing destructive uses that introduce and spread invasive species.



IV. ENDANGERED SPECIES ACT

For this herbicide plan, BLM initiated consultation with both Fish and Wildlife Service (FWS) and National Marine Fisheries Service (NMFS) on the likely effects to listed terrestrial and aquatic species. BLM submitted the Biological Assessment from 2007, *Final Biological Assessment, Vegetation Treatments on BLM Lands in 17 Western States*, which made a “not likely to adversely affect” determination for all listed species in 17 states. BLM received a concurrence letter from FWS, which stressed that concurrence was only at the programmatic level, and found that site-specific herbicide applications could result in a likely to adversely affect determination for listed fish species. Similarly, FWS found that FEIS had inadequate protections for two butterfly species (Fender’s blue and Oregon silverspot) as written. FEIS Attachment C, FWS Concurrence Letter, at 77-78. BLM districts must still comply with the ESA, and this concurrence letter *does not* fulfill BLM obligations under the ESA once herbicide projects start on the ground. As the 2007 Biological Assessment made clear, assessments and consultations at the programmatic level are not a substitute for site-specific consultations under the ESA. Because it is impossible to tell from either the 2007 or 2010 programmatic documents what herbicides will be applied, in what quantities, and near or in what habitat. Without this information, it does not appear possible to really know whether a given herbicide treatment will adversely affect or jeopardize the continued existence of any listed species.

Given this lack of specific information, it seems odd that NFMS actually completed a full Biological Opinion (BiOp) and found no jeopardy. NFMS, *Programmatic BiOp for Vegetation Treatments Using Herbicides on BLM Lands Across 9 BLM Districts in Oregon*, 6 (2010). Again, this is at the programmatic level, but individual BLM districts should not rely on this BiOp to comply with the ESA for any specific project that may affect listed species. NMFS identified several conditions on any herbicide application within 1500 feet of any water with listed species unless there is a site-specific determination. These conditions for application within 1500 feet are somewhat ambiguous, urging non-broadcast herbicide “where practicable,” but allowing both broadcast *and* aerial spray with limited conditions. NMFS BiOp at 62-63. It

is hard to believe, given the vast variety of locations where herbicide treatments and habitat for listed species could coincide, that these vague conditions will result in no jeopardy and no take. All NFMS received was a 2007 programmatic Biological Assessment for 17 states (now already outdated) and the current FEIS, which has no mandatory mitigation measures, no caps for acres sprayed, no limits on spraying multiple times with different chemicals in one spot, and no site-specific information. Thus, Appellants feel that this BiOp is deeply flawed, and BLM may not rely on this for site-specific ESA compliance. BLM does assert in the FEIS that site-specific consultation will be required, so to the extent that this consultation is actually followed through and done properly, the BLM could avoid violating the ESA. FEIS at 14.



IV. POTENTIAL VIOLATION OF CLEAN WATER ACT

Increased herbicide use has the potential to degrade waters in Oregon, or further impair already degraded bodies. FEIS at 194. The increase of herbicide use may significantly elevate the probability of herbicide entering navigable waters. Aerial spraying especially increases likelihood of water contamination from drift, and all alternatives include aerial spraying on the Eastside. There are places where streams and other water bodies may be unmapped or too close in proximity to adequately buffer. Even though none of the CWA 303d listed streams are impaired for the specific herbicides BLM intends to use, does not mean that an increase in chemical residue in these water will not have a further degrading, cumulative effect. FEIS at 189-90.

EPA will soon require permits for herbicide use that enters navigable waters, in accordance with the National Pollutant Discharge Elimination System (NPDES) of the CWA. *See* EPA, NPDES: Pesticides, http://cfpub.epa.gov/npdes/home.cfm?program_id=410. Given the likelihood that this increased herbicide use, including aquatic herbicides, will result in herbicide residues entering navigable waters of Oregon, from aerial or ground broadcast spraying, BLM must discuss compliance with the CWA in its NEPA document, as well as actually comply before initiating any herbicide treatments. The general permit does not cover all spraying allowed under this plan, thus BLM will likely have to apply for both the general permit and for individual NPDES permits as needed for individual projects.

V. SPECIAL AREAS

Appellants are opposed to any herbicide use within Wilderness Areas, Wild and Scenic River corridors, Research Natural Areas, and other areas protected for their natural values and processes (generally Congressionally withdrawn areas). BLM manages 8 wilderness areas

(247,000 acres), and numerous other protected areas, thus the potential for Alt. 4 to increase herbicide use in these areas is great. FEIS at 298. BLM should be especially judicious and precautionary when it comes to these special areas, and is required in some cases to perform additional analysis before engaging in motorized uses or spraying toxic chemicals. *See* Wilderness Act, 16 U.S.C. §1131, 1133(c). BLM downplays the potential harm of spraying toxic chemicals in wilderness or other areas, claiming that short-term effects are “negligible” and long-term effects are positive. This claim is not substantiated, and BLM ducks the analysis by saying that any spraying must conform to specific area requirements, and therefore no herbicide use will have a negative affect (because it will all be conforming, we are assured). This is not a “hard look” at the environmental effects to these special areas, nor does this lack of analysis inform the public about future compliance with these extra requirements and protection of these specially designated areas. Again, BLM’s cursory discussion tips the scales in favor of herbicide use by giving short shrift to the harmful effects of herbicide to wildlife, non-target plants, water and soil.

Conclusion

Programmatic planning can be an effective tool for managing large amounts of land and dealing with the daunting problem of invasive and noxious weeds. However, BLM’s flawed ROD and FEIS fail to take into account prevention measures that could stem the flow of these weeds to and from BLM lands in Oregon, and limit alternatives and analysis to increased chemical use. BLM failed to consider an adequate range of alternatives, and is bent on increasing the number of and uses for which herbicides may be used, but will not even consider removing from the list the most harmful herbicides. Because BLM manages so much land in Oregon, this blanket allowance of herbicide use for both invasive species *and* native plants has the potential to significantly degrade the environment, and only limited potential for success when the cause of invasive species is not dealt with.

Because subsequent site-specific decisions to actually use herbicides would in fact tier to this flawed, incomplete and illegal programmatic document, this ROD and FEIS must be withdrawn and revised before any site-specific analysis regarding or actual use of herbicides can occur. Appellants therefore ask that the ROD and FEIS be withdrawn and revised to comply with all applicable legal requirements.

Respectfully submitted the 1st day of December, 2010.

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CERTIFICATE OF SERVICE

I, Tom Buchele, hereby certify that I served the foregoing Statement of Reasons and attachments upon the following by certified U.S. Mail, return receipt requested, the 1st day of December, 2010.

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