

# **APPENDIX I**

## **Response to Comments**

## Appendix I: Response to Comments

The objective of this section is to display all of the public comments received by the Forest Service regarding the Draft EIS and to provide responses to them. The substantive comments were used to update, improve, clarify, and finalize the analysis in the Final EIS, and to help the responsible officials select an alternative.

### Comment Period

Notification of the availability of the Draft EIS was published in the Federal Register on February 2, 2007, initiating the formal 45-day comment period, which ended March 19, 2007.

Approximately 65 hardcopies of the document, 50 CD-ROMs, and 35 notification letters were mailed to individuals, organizations, government agencies, and interested Tribes (see FEIS Section 4.3). The document was also made available on a Forest Service web site (<http://www.fs.fed.us/r6/invasiveplant-eis/site-specific>), and *The Bulletin* published an article and notice on February 3, 2007.

### Responding to Comments

During the public comment period, 17 responses were received (see Table I-1). Consistent with the National Environmental Policy Act, 40 CFR 1503.4(b), this volume addresses substantive comments on the DEIS. Substantive comments include those which challenge the information in the DEIS as being inadequate or inaccurate, or which offer specific information that may have a bearing on the decision. Non-substantive comments are those that express opinions or position statements without any accompanying factual basis or rationale to support the opinion. All comments and response are part of the administrative record for this EIS, and have been considered during the decision-making process.

Consistent with NEPA, 40 CFR 1503.4a, possible responses to substantive comments include:

1. Modify alternatives including the proposed action.
2. Develop and evaluate alternatives not previously given serious consideration by the agency.
3. Supplement, improve, or modify its analyses.
4. Make factual corrections.
5. Explain why the comments do not warrant further agency response, citing the sources, authorities, or reasons which support the agency's position, and, if appropriate, indicate those circumstances which would trigger agency reappraisal or further response.

**Table I-1. List of Respondents to the DEIS**

Letter	Author, Title	Organization/Agency
1	Todd Pfeiffer, Klamath Co. Vegetation Manager	Klamath County Weed Control
2	Ed Sink	
3	Barbara K. McAusland	
4	Brenda Pace	
5	Lydia Garvey	
6	Pete Schay	Friends of the Metolius
7	Laurie Solomon	
8	Paul Stell	Deschutes County Weed Advisory Board

9	Berta Youtie, Restoration Ecologist	Eastern Oregon Stewardship Services Corporation
10	Debra Bunch	Crooked River Weed Management Area
11	Doug Heiken	Oregon Wild
12	Scott Hartung, President	Sunriver Owners Association
13	Richard Breese, Chairman	Crook County Soil & Water Conservation District
14	Gary Young, Owner	Blue Mountain Ranch
15	Elaine Somers	Environmental Protection Agency, Region 10
16	Lisa Hanson, Deputy Director, ODA	Oregon Department of Agriculture Oregon Department of Forestry Oregon Department of Environmental Quality
17	Karen Coulter	League of Wilderness Defenders, Blue Mountains Biodiversity Project

### Comments and Responses

The comments have been arranged by topic. The number in parentheses following each comment indicates the source of the comment (e.g. 1.2 is comment letter 1, second statement).

#### Species / Treatment Areas / Early Detection/Rapid Response

*“The Klamath County Weed Control does contract work for other agencies within the Deschutes National Forest boundary and the inability to use herbicides greatly hampers our efforts. Some of our areas of concern that we would like listed as weed sites are County and Public Road Rights-of Way, Power Line Rights-of-Way, and Gas Line Rights-of-Way.” (1.2)*

**Response: The current EIS considers treatment of inventoried invasive plant sites. Many inventoried sites along roads and within rights of way are included in this project. If sites of concern are not included, additional sites and species can be treated using the early detection/rapid response strategy.**

*“I applaud the EIS programmatic approach enabling an early response system to new or newly discovered infestations. I’m going to buy a GPS to be able to better alert Forest Service personnel about the location of invasive plants.” (4.4)*

**Response: The Forest Service welcomes information on invasive plants on National Forest System land.**

*“The infestation of yellowflag iris located in the Metolius Basin should be included on the priority species list for both the Sisters Ranger District and the Crooked River National Grasslands (CRNG).” (8.14, 9.14)*

*“Listing the species as a target will increase the potential for successful control. There is a high probability that left unchecked in the Metolius River system, impacts to the listed bull trout, and potentially any reintroduced salmonid species, could be significant.” (8.16, 9.16))*

*“Yellow Flag Iris (Iris pseudacorus) should be a priority species identified in this document. The tri-county Yellow Flag Iris working group is implementing control efforts along the Deschutes, Crooked, and Metolius Rivers. The infestation on the Metolius River is located on federal and private land. The Crooked River National Grassland has sites of this weed on irrigation canals. The population does not extend past Lake Billy Chinook and control efforts are having positive results.” (10.8)*

*“Yellow Flag Iris (Iris pseudacorus) should be a priority species identified in this document. The Forest Service should work closely with the tri-county Yellow Flag Iris working group in implementing control efforts.” (13.6)*

**Response: The yellow flag iris was included in the list of species that occur on the Forest (DEIS Table 9). It is known to occur within Project Area Unit 15-32 and the inventory has been updated to reflect that. If sites of concern are not included in a Project Area Unit, they can be treated using the EDRR.**

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*“I am the permittee on the Roba Allotment, Ochoco National Forest. During the past decade, the invasive weed houndstongue has shown a rapid expansion of infested area and seriously affected the management of this allotment.” (14.1)*

*“While the Forest Service has mapped the increasing [houndstongue] infestation and had summer crews hand-pulling or digging individual plants, it has had little or no effect at reducing the rate of expansion.” (14.2)*

*“Chemical treatment is needed to deal with this growing threat to the health of the land and the economic opportunities for my use of the National Forest.” (14.3)*

**Response: There are numerous Project Area Units within the Roba Allotment (e.g. 72-03, 72-14, 72-15, 72-17, 72-18, 72-19, 72-20, 71-25, and more). As the comment notes, manual treatment in this area has been unsuccessful (DEIS p. 94); Alternative 2 proposes to use a more effective herbicide to treat houndstongue than we have been able to use in the past, which is believed to be the most effective option for sites that are too large or too dense for manual treatment (DEIS p. 98; Appendix B-6).**

**EDRR would be available to quickly treat new sites that fall within the scope of the analysis included in the EIS.**

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*“ODA is pleased to see an early detection rapid response approach has been included in the DEIS and strongly supports this approach for invasive species management. Our experience has shown for effective protection of natural resources and the maximum benefit of noxious weed control is achieved through early detection and treatment for new invaders. An early detection rapid response approach can provide a 33:1 benefit to cost ratio for the control of new invading weeds.” (16a.3)*

**Response: This information has been added to the economics section of the FEIS.**

### Range of Alternatives

*“I feel that this DEIS presents an insufficient range of alternatives, failing to use alternatives to toxic chemical herbicides, especially within riparian reserves and riparian habitat conservation areas, as well as the most obvious, municipal watersheds.” (7.1)*

*“There are many alternatives that have been offered, during the public comment period, but not recognized in this DEIS as being valid alternatives. Such alternatives include increasing the focus on education and prevention of invasive plant introduction and dispersal, and prohibiting the use of exotic biocontrols.” (7.2)*

*“The Forest Service presents an insufficient range of alternatives (DEIS pp. 55-58) failing to analyze and consider, despite public comments in favor of these: using methods other than herbicides; restricted herbicide use across the planning area through using herbicides as a tool or last resort or using herbicides only on highest priority sites that are considered suitable for herbicide use; not using herbicides within riparian reserves or riparian habitat conservation areas; not using herbicides in municipal watersheds (re: drinking water poisoning); prohibiting the use of exotic biocontrols; maximizing worker jobs through hand-pulling and manual management; focusing more on education and prevention of invasive plant introduction and dispersal (more prevention is especially needed for livestock and off road vehicle dispersal as well as for traffic on roads and highways).” (17.1)*

*“We advocate for no herbicide use in riparian zones; among TES-listed plant species; within critical habitat for TES-listed wildlife species; within municipal watersheds or high recreational use area; within known areas of cultural, commercial or recreational food and plant medicine collection; within Sage grouse habitat and critical Neotropical songbird habitat; within Survey and Manage species habitat and critical habitat for rare or declining Management Indicator Species; within 300 feet of all water sources (including wells, springs,*

*livestock tanks, etc.) and within banks of intermittent streams and ephemeral draws.” (17.31)*

**Response:** Issues raised by the public during project development have been addressed and primarily resolved through the PDFs. Alternative 3 was developed to provide an even more cautious approach to invasive plant treatment within the riparian areas (DEIS p.19). The DEIS considered the other alternatives listed in the comment (see DEIS pp 55-58); however, they were not fully developed because they would not resolve issues any better than the other action alternatives, are not necessary to meet environmental standards, would substantially reduce the effectiveness of the project, and therefore do not meet the purpose and need. The reasons they were not analyzed in detail are discussed further in Chapter 2.

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*“The two action alternatives are so similar as not to offer much choice and both rely on exceptionally heavy use of herbicides (see Table 18, p. 59).” (17.2)*

*“Your 2 alternatives are so similar & inappropriately destructive – there is no choice at all.” (5.1)*

**Response:** Herbicide use in both alternatives is designed to minimize or eliminate adverse effects. Neither involves exceptionally heavy use.

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*“Alternative 3 is only marginally better than alternative 2 because it would not: allow herbicide use within 10 feet of water bodies; allow triclopyr, picloram, and sethoxydim within 300 feet of perennial water bodies; allow herbicide use in intermittent channels when dry. Yet the Forest Service, while acknowledging these water contamination hazards, still chooses alternative 2 as its preferred alternative!” (17.5)*

**Response:** The DEIS describes the differences between alternatives and trade offs between risk and cost-effectiveness. The DEIS acknowledges that Alternative 2 is more likely than Alternative 3 to result in delivery of herbicide to streams. Because Alternative 3 was designed to address the issue of treatment effects to water quality and fisheries, the difference in treatment options reveals a great difference in the expected effectiveness at those sites (see section 3.3).

### **Alternative Preference – No Response Required**

*“I am in support of Alternative 2.” (1.1)*

*“Having visited the web site and reading through the information I concur with the FS recommendation of following action proposal #2. This appears to be the most cost effective of the proposals to deal with the weed menace.” (2.1)*

*“Having reviewed the DEIS the Friends of the Metolius support the preferred alternative (alternative 2). This alternative allows for the control*

*of noxious weeds within riparian and aquatic habitats which are critical to the natural functioning of ecosystems on the watershed scale.” (6.1)*

*“We need to get the upper hand on noxious weeds and alternative 2 takes us in the right direction.” (6.3)*

*“We also think that the alternative does a good job of establishing sideboards on herbicide use to avoid accidental applications that may have adverse effects on fish, wildlife, or water quality. We support the proposed action, Alternative 2.” (9.6)*

*“The Sunriver Owners Association (SROA) supports Alternative 3 as described within the Invasive Plant Treatments, Draft Environmental Impact Statement (EIS), Deschutes and Ochoco National Forests, Crooked River Grassland, January 2007. The SROA Environmental Committee and the Environmental Services Department have reviewed the EIS in detail and believe this alternative addresses community concerns regarding invasive plants.” (12.1)*

*“Alternative 3 allows for timely response to newly identified infested areas within the Deschutes National Forest, located adjacent to Sunriver. This alternative also allows active management of the native ecosystem, utilizes treatment methods that reduce impact on riparian areas, and meets state water quality standards.” (12.3)*

*“Although the FS believes that activities under the Preferred Alternative (Alternative 2) would be more effective in reducing invasive plants on the Forests, this Alternative has more potential to impact water quality than would Alternative 3. Since waterbody buffers under Alternative 3 would range from 150-300 ft., we believe that Alternative 3 offers more protection to aquatic resources, meets the proposed project’s purpose and need, and responds to public concerns about water quality and fish more so than the Preferred Alternative (Alternative 2). We therefore recommend that the FS consider selection of Alternative 3 or a combination of Alternatives 2 and 3 as the Preferred Alternative for implementation.” (15.7)*

*“ODA strongly supports the proposed action, Alternative Number 2 that is less restrictive of the uses of herbicide and is more effective at controlling and reducing invasive weed infestations while promoting and restoring healthy native communities and their natural functions. In order to implement effective weed control projects and to make best use of limited funding and resources it is critical to have a full complement of integrated management options available.” (16a.2)*

*“The Oregon Department of Forestry (ODF) strongly supports efforts to prevent and control infestations of invasive weeds. The department agrees with ODA’s comments on the DEIS, including support for Alternative Number 2. The alternative helps further the following strategy and action described in the 2003 Forestry Program for Oregon (FPFO), which documents the Oregon Board of Forestry’s strategic plan for Oregon’s forests:*

- *Strategy F: Protect, maintain, and enhance the health of Oregon’s forest ecosystems, watersheds, and air sheds within a context of natural disturbance and active management.*
- *Action F.3. (one of the actions to accomplish Strategy F): The board will encourage state and federal agencies to closely monitor and aggressively act to prevent and mitigate the adverse effects of air pollution and invasive, non-native species on Oregon’s forests.” (16b.1)*

**Response: Alternative 2 was identified as the Forest Service’s preferred alternative. A final decision will be based on how each alternative meets the purpose and need and the manner in which the alternative responds to the issues and public responses received.**

### **Treatment Methods / Project Design Features**

*“At many places where trampling along the riverbank occurs [Deschutes], spotted knapweed doesn’t bolt but stays flat and acts as a mat covering the soil. Without a stalk, it can’t usually be pulled. It can be dug causing great disturbance to the soil or the flowers can be removed in the hope that we can outlast the lifespan of the plant. Where there is a significant density of plants, manual pulling disturbs the soil a great deal. These locations are often soon filled with cheatgrass or storksbill. For both of these instances, a suitable spray for very specific application would be a great benefit.” (4.1)*

**Response: The Forests recognize the difficulty of treating plants in these types of situations (see DEIS p. 94). Areas such as this that have been manually treated for several years with no progress are proposed for chemical control with the herbicides now approved for use on the Forests (see for example Appendix A, Project Area 11-71).**

**The density of plants is one factor used in determining whether manual pulling would be an effective treatment. Monitoring during and after treatment will determine if active restoration is required to keep the area from being reinvaded. Clopyralid, a very selective herbicide, is the preferred herbicide for spotted knapweed populations.**

*“ODOT does not appear to spray outside their highway easement. Often, clearly visible plants that are in the forest along highways such as Century Drive are not sprayed. Therefore, control within the highway easement is not always resulting in control of the species.” (4.6)*

**Response: Project Area Unit 11-07 is located along Century Drive. Treatment and post-treatment monitoring will be employed to determine if site objectives are being met. If additional areas of concern occur outside these PAUs, they can be treated under the early detection/rapid response strategy.**

*“While FoM generally does not favor the use of herbicides for management of vegetation, we recognize that without judicious application of effective and safe chemicals, control and/or eradication of such highly invasive species, such as ribbongrass in the Metolius River, would be impossible. In addition, knapweed species and other weeds are spreading even after years of manual pulling.” (6.2)*

**Response: The choice of what treatment method to apply to a particular invasive plant site is based on several factors as described on p. 28 of the DEIS. The DEIS acknowledged the difficulties that have been encountered with manual treatment of particular species such as knapweed (p. 91).**

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*“Both action alternatives rely too heavily on heavy use of herbicides to deal with invasive plant species, which will inevitably increase herbicide resistance in some species, while decimating others.” (7.3)*

**Response: Herbicides would be used according to integrated treatment practices and Project Design Features (PDFs) that limit the potential for killing beneficial organisms, developing herbicide resistance, or contamination of the environment. Herbicide resistance can develop in some plants if repeated application of a single herbicide occurs continuously; most often resistance develops in croplands (USFS 2005a). Herbicide resistance is less of a concern when there is a larger toolbox to choose from and when non-herbicide methods are used in combination.**

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*“Both action alternatives, 2 & 3, would raise herbicide use from 2% of inventoried invasive plant sites to 95% of inventoried sites, in the first year of control. Apparently only 5% of sites would be approached with non-chemical management in the first year although many if not most invasive species can be controlled with hand-pulling and other non-chemical methods – especially with small new infestations.” (7.4, 17.3)*

**Response: As the DEIS explained, manual control is mostly effective on small populations of annuals or biennials. The current use of herbicides is limited to those invasive plant sites that were proposed and analyzed for herbicide use in 1998. Since 1998, the inventory of new invasive plant sites has grown, as has the size of some invasive plant populations that have not been effectively controlled by hand pulling. The preferred method for control is based on many factors (DEIS p. 28 and Appendix B). If field review indicates a site can be controlled with hand-pulling, it will be (DEIS p. 29).**

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*“The treatment(s) chosen for any specific weed population should have the highest probability of success. Success should be defined by achievement of measurable objectives, not by acres treated in a given year or what type of treatment is implemented. Weed treatment plans often focus too heavily on acres treated and not on whether or not those acres were restored to a better condition.” (9.8)*

*“The DEIS has in many places put restrictions on specific chemical applications, beyond those specified in the EPA-approved label. Some of these restrictions seem unwarranted and may lead to undesirable outcomes.” (8.11, 9.11)*

*“Before any pesticide is allowed to be sold in the United States it undergoes stringent testing by the EPA. This testing is designed to assess the impacts to the environment, which then are translated to allowable application rates, methods, buffers, and target species. By restricting the label further there is a risk of increasing the impacts to the environment. For example, treating an infestation with less than label recommended rate may result in poor control which then necessitates additional application(s). This can translate into more chemicals on the ground, which is what restricting the label was trying to avoid in the first place.” (8.12, 9.12)*

*“I am concerned that the Forest Service is limiting pesticide use more than would be required by the EPA approved label instructions. It is evident in reviewing the environmental effects that these limited treatments will be less effective and more costly with little or no gain in environmental protection.” (14.5)*

*“Also by imposing further restrictions there is a potential to create confusion at the applicator level. Potentially there are two “labels” that need to be followed, the herbicide label and the EIS restrictions. The herbicide label is on the container and available in the field if questions arise, the EIS restrictions may or may not be available in the field. The label is the law, make your job easy by having only one label to follow.” (8.13, 9.13)*

**Response:** The PDFs are intended to show specifically how the Forest Service will implement label advisories, comply with standards and guidelines, and protect sensitive resources. For example, a label may say “do not contaminate water when cleaning equipment”; then our PDFs show *how* we are avoiding contamination of water. This specificity is necessary for conducting effects analysis as required by NEPA.

**Use of herbicides will follow label instructions (DEIS p. 41).** Although some application rates would be limited, the rate would not be below the rate that is necessary for effective control as advised on the label.

**One purpose of implementation planning (see Appendix F) is to avoid confusion and ensure all appropriate measures are taken when it comes time to treat a site. Annual implementation planning will involve coordination with the applicators and completing form FS2100-2 (required by FSM 2150), as outlined in Appendix F.**

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*“Care must be taken when using any mechanical approach as this usually has a disturbance associated with the technique, which can sometimes create the unnecessary microhabitats necessary for invasive species establishment.” (8.18, 9.18)*

**Response:** Mechanical treatment in this project is primarily limited to weed whacking, see Appendix A, p. 44. The need for active restoration or revegetation will be re-assessed during post-treatment monitoring at sites.

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*“The Forest Service is overly reliant on chemical treatments and overly dismissive of non-chemical methods. More than 90% of the treated area (13,000+ of 14,000+ acres) will involve chemical treatments. The Forest Service should have considered non-chemical alternatives (and strictly limited chemical alternatives) even if such methods were thought to be less effective because 1) the Forest Service needs to conduct the NEPA analysis before they conclude that the non-chemical treatments are not effective, (2) the Forest Service needs to compare and disclose the effects of the chemical and no-chemical methods so they are fully informed of the trade-offs, and (3) non-chemical treatments and no-action are not the same thing.” (11.12)*

**Response: The Forest Service considered a no-herbicide alternative as well as several alternatives that would in some way restrict the use of herbicides. Except for Alternative 3, these alternatives were dropped from further analysis because they did not meet the purpose and need for this project (see Section 2.5).**

**Appendix B, Treatment Options is based on current information such as Common Control Measures for Pacific Northwest Invasive Plants (Mazzu 2005), as well as information from area weed specialists. These studies and monitoring data helped formulate the treatments proposed in this project. They also inform the analysis of effectiveness of the treatments as the alternatives are analyzed in section 3.3 of this NEPA document.**

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*“We promote IPM strategy because it is a prudent approach to understanding and dealing with environmental concerns that may result from invasive plant treatments. The IPM approach does not blindly embrace new technology nor does it reject technology. Instead, the strategy promotes a thoughtful awareness of the pest management inherent in natural systems through an understanding of pest life cycles, and through the use of beneficial organisms, cultural modifications, physical barriers and other mechanical controls. IPM does not rule out judicious use of herbicides.” (15.2)*

*“The State of Oregon supports an integrated weed management approach and believes in utilizing all tools available including chemical, mechanical, and biological control methods as well as prescribed fire for control projects.” (16.3)*

*“The Board has also noted in its administrative rules that pesticide use is a key element in an integrated pest management program, to be used in an environmentally and economically sound manner to meet site-specific objectives.” (16b.2)*

**Response: Thank you for your comments.**

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*“DEQ believes that use of non-chemical control, such as biological and cultural control should be considered first for treating widely spread invasive species infestations and within riparian areas.” (16c.17)*

**Response:** The preferred method for control is based on many factors (DEIS p. 28 and Appendix B). Manual treatment is used first on small populations of species effectively pulled. Biological control can be used in situations where the size of an invasive plant population needs to be reduced before other methods can be utilized (DEIS p. 90), but it is not appropriate for all species. The cultural control method of covering invasive plants with black plastic has been considered for use, but can be problematic because it will kill all of the underlying vegetation, can sterilize the soil, and is unsightly in areas where the scenery is important.

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*“The ecological values at risk, particular biology of invasive plants, proximity of infestations to water and sensitive species, size of infestation and control objective considerations should weigh against the desirability of applying toxic chemicals on 95% of inventoried sites the first year—especially with many of those sites being subject to repeated herbicide applications for up to the next five years or more, which is admitted in various sections of the DEIS.” (17.9)*

**Response:** The preferred method for control is based on many factors such as those listed in the comment (DEIS p. 28 and Appendix B). The budget and personnel would not be available to complete treatments on 95% of the invasive plant sites, so they would not all be treated in the same year. Sites that remain small enough to control manually will be initially treated by hand.

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*“Application of toxic chemicals in the majority of inventoried sites initially or perpetually does not follow integrated weed management principles of effectiveness with minimum adverse impacts to non-target organisms, species and site specific determination of control method/plan, and integration with a combination of treatment methods.” (17.11)*

**Response:** The project would follow IWM principles. Integrated weed management strives to achieve optimum management goals and objectives in coordination with other resource management activities. This project applies that approach and our PDFs insure compliance with the standard that requires us to minimize or eliminate adverse effects to non-target species.

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*“Herbicides are the control method that most threatens the values stated in Goal 4 of Regional direction: ‘—protect sensitive ecosystem components, and maintain biological diversity and function within ecosystems’ as well as ‘minimizing adverse effects from treatment project.’ DEIS p. 15.” (17.12)*

**Response:** All alternatives comply with the standards in the R6 FEIS. Sensitive ecosystem components and biological diversity would be protected (see sections 3.4, 3.7, 3.9).

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*“Immediately sharply increasing herbicide use as planned is contrary to the Region 6 Objective 3.2: “Reduce reliance on herbicide use over time in Region Six” DEIS p. 15—especially as this DEIS follows the 2005*

*Region 6 EIS in time and the current status quo on these forests and grassland for herbicide use is far less than proposed.” (17.13)*

**Response:** Pages 88 to 89 of the DEIS described the invasive plant treatment projects approved in 1998 (more than 1,000 acres across the two National Forests). The current proposed action is based on the current inventory, which has grown substantially since 1998. Newer and relatively safe chemical options have become available. The Forest Service expects herbicide use to decline over time given effective treatments proposed in this EIS. Herbicide use at treated sites has declined because of successful control (DEIS p. 93-94). For instance, spraying has been reduced from broadcast to spot application on Hwy 26 as a result of effective treatment. Treatments will be followed by either active or passive restoration, and the restoration would be monitored over time. The restoration is aimed at establishing native plant communities, which would reduce and eliminate the need to use herbicides over time.

**Treatment of invasive source populations and implementing the planned rapid response plan would also serve to reduce long-term herbicide use.**

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*“Economic efficiency as a purpose and need objective biases the Forest Service decision toward herbicide use because the Forest Service has not been very creative in recruiting volunteers and adjacent residents to implement manual control of invasive plants, making herbicides appear to be a cheap and easy fix if long term costs to the environment and human health are externalized and ignored, as is the case with this DEIS.” (17.15)*

**Response:** Economic analysis in the R6 FEIS showed that non-herbicide methods can be more costly than herbicide applications. The Common Control Measures (appendix B) shows that combinations of herbicide and non-herbicide treatments are often most effective. This project is not predicted to result in impacts to human health. Impacts to the environment are described; no monetary costs are associated with impacts to people or the environment as a result of this project. Also, more discussion on the use of volunteers has been added to various sections of the FEIS.

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*“Escalating from an average of 275 acres controlled annually with herbicide under existing NEPA documents to proposed herbicide use on up to 13,814 acres of herbicide use in the first year is an extreme increase in herbicide use, rendering years of subsequent herbicide use as high increases, rather than reductions, in herbicide use over current levels.” (17.17)*

**Response:** Pages 88 to 89 of the DEIS described the invasive plant treatment projects approved in 1998 (more than 1,000 acres across the two National Forests). The current proposed action is based on the current inventory, which has grown substantially since 1998. Newer herbicide options, which pose a relatively low risk to people and non-target organisms, have become available. The Forest Service expects herbicide use to decline over time given effective treatments proposed in this

**EIS. Herbicide use at treated sites has declined because of successful control (DEIS p. 93-94). For instance, spraying has been reduced from broadcast to spot application on Hwy 26 as a result of effective treatment. Treatment of invasive source populations and implementing the planned rapid response plan would also serve to reduce long-term herbicide use.**

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*“13,814 acres of potential herbicide use as compared to only 732 ½ acres for proposed non-chemical methods without herbicide use reveals an extreme bias toward the use of toxic chemicals.” (17.18)*

*“There is also heavy reliance on herbicides in riparian areas proposed despite public concern expressed over this: 3,004 acres of herbicide use in riparian areas as compared to 98 ½ acres not using herbicides in riparian areas (table 6, p. 29).” (17.19)*

**Response: The DEIS explains how herbicides would be used in combination with non-herbicide methods to increase treatment effectiveness (Table 10, Appendix B). The analysis assumes that herbicides would be used as part of the initial prescription for most sites. This provides a threshold for effects analysis. Not all sites proposed for herbicide use would be treated at once, nor would all necessarily include herbicides. However, herbicides are appropriate for most riparian, as well as upland sites. For instance, streamside, rhizomatous species such as reed canarygrass and ribbongrass would not be effectively controlled by hand pulling alone.**

**PDFs and buffers would be applied in riparian areas to minimize or eliminate risk of adverse effects to water quality and/or aquatic organisms.**

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*“High risk of human, pet and horse, mule or llama exposure along trails should mandate manual or mechanical controls there rather than herbicide use.” (17.22)*

**Response: Exposure of people, pets and livestock to herbicides would be managed through public notification, signing and/or temporary closures. The herbicides proposed for use according to PDFs would not likely harm people, or their pets or livestock. For more information, see (DEIS pp. 277-281, 361-362).**

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*“It’s outrageous that the bare minimum riparian protections specified in alternative 3 are not automatically adopted in the preferred/proposed alt. 2.” (17.23)*

**Response: The DEIS compares the risks and costs of two action alternatives, both of which minimize the risk of adverse effects to water quality and the aquatic environment. The additional measures specified for Alternative 3 exceed minimum requirements as described on pp. 78-80 of the DEIS. The Record of Decision will consider the additional protections afforded by Alternative 3 in relation to its cost-effectiveness and rationale for the final selection of alternative.**

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*“It would not be difficult to find enough volunteers to handle the 260 acre difference by hand and we volunteer to help in that effort.”  
(17.24)*

**Response:** The options for control of an invasive plant population are determined by factors such as the site conditions, invasive plant biology, and size and density of the infestation (DEIS p. 28, 33; Appendix B). The analysis discloses that in some situations, larger groups of people pulling and digging in riparian vegetation could cause sedimentation (DEIS pp. 57, 194, 250). In particular, ribbongrass along the Metolius River is rhizomatous and difficult to remove by pulling or digging. Closer to the water where it roots in the gravels it pulls out easier – but people near and along the shoreline can impact juvenile bull trout and redband trout – which constitutes a negative effect that would be amplified with large groups of people working on the streambanks.

*“Volunteer labor to cut costs could come from AmeriCorps, environmental groups (we have been offering to help but have been ignored), recreation groups, Native Plant Society members, civic groups, highway trash collection volunteers and many others.” (17.16)*

**Response:** The FEIS has been amended to include the finding that volunteer labor could offset a portion of implementation costs. The common control measures demonstrate that some non-herbicide methods may be effective and favored if volunteer labor is available.

*“Some targeted invasive plants such as St. Johnswort and Blessed milkthistle, have commercial value to herbalists and could be hand-removed by them without herbicide use. We offer to help with this re: St. Johnswort on the Deschutes and were ignored.” (17.27)*

**Response:** The action alternatives allow manual methods where they would be cost-effective. Herbalists have informed the Forest that they are not interested in the species that grow near the highways because they are not pristine (Pajutee 2007). Again, the options for control of an invasive plant population are determined by factors such as the site conditions, invasive plant biology, and size and density of the infestation (DEIS p. 28, 33; Appendix B).

*“There is no substantiation for numerous statements in the DEIS that herbicide use is necessary or the only effective means of control.”  
(17.37)*

**Response:** The Common Control Measures document prepared for the R6 2005 FEIS (and refined to reflect conditions on the Deschutes and Ochoco National Forests) provides citations to substantiate our contention that herbicides are needed for effective treatments for many target species. Prescription considerations include cost, treatment effectiveness, and potential environmental impact.

*“Since the majority (76%) of known sites are smaller than one acre and most new infestations are small, why isn’t there more emphasis on manual control? Smaller infestations are more amenable to manual control, which poses less risk to the environment and human health.” (17.49)*

**Response: Manual control is an option in both action alternatives. The factors involved in determining an appropriate course of action at a particular site include the location of the invasive plants, the number and density of plants, the species and its characteristics. Experience with similar sites is also considered. See DEIS p. 28, 33-34, and Appendix B.**

*“The Forest Service has failed to show that past failures in manual and mechanical control methods were not due to lack of adequate follow through.” (17.46)*

**Response: The DEIS points out instances where invasive plant sites have been repeatedly treated with manual or mechanical means. In some cases the treatment has been successful and in other cases not (DEIS pp. 94, 97). The Common Control Measures document prepared for the R6 2005 FEIS provides citations to substantiate our contention that herbicides are needed for effective treatments of many target species. The Common Control Measures were reviewed, annotated with information for the Deschutes and Ochoco, and included in the EIS as Appendix B. Prescription considerations include cost, treatment effectiveness, and potential environmental impact. Herbicides would be used as part of an integrated weed management prescription that would also include non-herbicide methods.**

### **Toxicity of Herbicides**

*“NIX heavy use of herbicides! They are toxic to humans, wildlife, soil, fish & water (includes human drinking water watersheds).” (5.2)*

*“Both action alternatives (2 & 3) would use all ten herbicides approved by Region 6 even though some of these, such as picloram, triclopyr, and sethoxydim, pose higher toxicity risks to humans and wildlife and could more readily contaminate water, threatening drinking water supplies and fish.” (17.4)*

**Response: Many layers of caution are built in to the project (see DEIS pp. 78-80). Our analysis relies on scientifically credible and peer reviewed risk assessments that have been prepared for the herbicides proposed for use (DEIS section 3.2). The risk assessments indicate that the formulations proposed for use would not be detrimental to people, drinking water, and/or flora and fauna. Project Design Features (PDFs) ensure the project complies with Forest Plan standards to minimize or eliminate negative adverse impacts to non-target plants, animals, and water.**

*“Herbicide use could preclude the use of non-chemical controls later, such as hand-pulling in the same year or with persistent chemicals or prescribed burning, which in some cases releases toxic products of combustion.” (17.10)*

**Response: Manual follow-up treatments are not precluded by the use of herbicides. Although the risk assessments considered hazards associated with burning, this project does not propose to burn any vegetation after it has been treated with herbicides.**

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*“This is already a compromise position on our part as we would prefer that there be no toxic chemical use at all on public lands (or poisoning of any ecosystem) but also recognize the threat to native biodiversity by invasive plants and the increase in infestations. However some of the herbicides proposed for use pose much greater threats than others and simply shouldn’t be used, just as DDT was eventually banned and Region 6 is now prohibiting the use of 2,4-d and Dicamba because of toxicity concerns. These higher risk chemicals are obvious from a close reading of this DEIS and Region 6 risk assessments and include Picloram, Triclopyr, formulas with NPE surfactants, formulas with POEA surfactants and broadcast use of the sulfonylurea herbicides and imazapyr.” (17.33)*

**Response: The R6 2005 Record of Decision approved the use of the list of 10 herbicides (Table 12, p. 36) because they are likely to treat all situations known in the Region and because they pose relatively low risk to people and the environment (USFS 2005b, p. 9). These herbicides are considered necessary to treat known infestations within the project area. Layers of caution, including PDFs and buffers, reduce the risks further.**

**Broadcast treatment would not occur except when necessary, according to PDFs and buffers. No broadcasting of higher risk herbicides would occur near streams, water bodies, sensitive plants, and some wildlife habitat (PDFs 29, 54, 64, 65, 66, 78, 81, 89, 92, 94, Table 15).**

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*“Sethoxydim and clopyralid also raise some concerns, the latter because of its contamination with Hexachlorobenzene, a carcinogen that bioaccumulates.” (17.34)*

**Response: HCB is a ubiquitous industrial contaminant. However, exposures of HCB from the use of herbicides in this project would be far below any level of concern because the rate and extent of application is very low. Further information on HCB is in the Risk Assessments and R6 2005 FEIS. Design features specific to clopyralid are included, such as the rate at which NPE may be applied is limited and application is prohibited in certain areas (e.g. within 100 feet of water; in spotted frog habitat; in pygmy rabbit habitat).**

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*“No observable effects does not take into account hidden cancers or reproductive failure that may be developing.” (17.42)*

*“Despite a considerable body of data on acute exposure effects from the proposed list of herbicides, it is important to recognize that the chronic and sublethal risks are not yet well characterized. The historical record of pesticide toxicology reveals many cases of serious and unexpected adverse effects associated with pesticides that were not predictable from standard acute toxicity tests.” (16c.4)*

**Response:** The no observable adverse effect level (NOAEL) is based on laboratory tests including organ/tissue examination/dissection and observation of behavioral changes or non-lethal impacts such as weight loss. The terminology is defined in Chapter 3.2. The use of the NOAEL in determining toxicity indices and the effects to wildlife is described in Chapter 3.9.2 of the FEIS. Data gaps do exist, and are disclosed in the Risk Assessment for each herbicide proposed for this project.

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*“Existing thresholds are not fool-proof; chronic effects are largely unknown for most herbicides; and there’s always the danger of drift, spills, erroneous application to listed and native plants, public ingestion of contaminated plants, etc. So not exceeding industry-determined “thresholds of concern” could still lead to acute and chronic poisonings, cancers, reproductive failures, loss of listed plant species, etc. Another analysis flaw is assuming that a “low” level of risk is protective. A low level of risk is not the same as being below a threshold of concern. How significant are the effects that could be experienced? If the effects are significant, the risk may still be of significant concern and may not be acceptable to the public or the viability of the ecosystem.” (17.43)*

**Response:** The Risk Assessments characterize risk of adverse effects to non-target organisms using laboratory and field studies of toxicity, exposure, and environmental fate (DEIS p. 77) and address concerns about acute and chronic exposures, risk of cancer, reproductive failures, etc. Risks from accidental spills and accidental ingestion are also included in the risk assessments. The thresholds of concern were reduced in the R6 2005 FEIS to account for risk to federally listed species, following protocol used by the EPA. Uncertainties are addressed through the Project Design Features that limit the type and method of herbicide application to eliminate exposure scenarios that would cause concern (p. 79).

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*“Many of the harms caused by invasive plants are also caused by herbicides, plus herbicides cause other additional significant ecological and human health impacts such as toxicity, reproductive failure, cancers, contamination of water supplies, etc.” (17.48)*

**Response:** The adverse impacts that invasive plants can cause to the environment are discussed throughout the DEIS (see for example, p. 81, 127, 157-158, 233, 325, 355, 361). These impacts are not similar to the impacts described for the cautious use of herbicides in the proposed action. This project is intended to restore ecological integrity and protect human and environmental health.

## Effects to Soil

*“There is insufficient analysis and many data gaps regarding effects of herbicides to soils. Picloram, sulfometuron methyl and triclopyr have the highest toxicity to soils according to the available science used, and should not be used or used only as a last resort with wick application.” (17.52)*

*“Impacts of repeated applications of herbicides to soils have not been assessed. Site-specific analysis should be included.” (17.53)*

**Response: The DEIS described the factors that would be considered in prescriptions, including cost, effectiveness, and risk of adverse effects. The PDFs and buffers compensate for the inherent hazards of individual chemicals.**

**Where herbicide and soil characteristics would combine to create a hazard (such as toxicity to microbes, measurable losses to productivity, or conveyance of herbicide residues to surface or ground water resources), project design features were developed to minimize these effects (DEIS p. 161). For example, picloram is not allowed to be used on a site more than once per year. Detectable soil accumulation would not occur (p. 167).**

## Effects to Water Quality / Riparian Areas

*“In general, we agree with the proposed invasive plant treatments to improve resource conditions in the project area. However, we are concerned about the project’s potential to further degrade water quality within a number of water bodies that are already on 303(d) list due primarily to temperature exceedences and other water quality criteria.” (15.3)*

*“Water quality degradation is one of EPA’s primary concerns. Section 303(d) of the Clean Water Act (CWA) requires the State of Oregon (and Tribes with approved water quality standards) to identify water bodies that do not meet water quality standards and to develop water quality restoration plans to meet established water quality criteria and associated designated uses. The draft EIS must disclose which waters may be impacted by the project, the nature of potential impacts, and specific pollutants likely to impact those waters. It should also report those water bodies potentially affected by the project that are listed on the State’s and Tribe’s most current EPA approved 303(d) list.” (15.6)*

*“The draft EIS identifies impaired waters in the Project area (p. 170-175) and indicates that no Total Maximum Daily Loads (TMDLs) have been finalized for 303(d) listed water bodies. We noted that the EPA-approved 2002 303(d) list referred to in the draft EIS is outdated. The most current 303(d) list approved by EPA is the 2006 list and we recommend that the final EIS include information from the most current 303(d) list, note any differences between the two 303(d) lists i.e., 2002 and 2006 lists for*

*relevant parameters and water bodies in the project area, and discuss analyses and conclusions that may be affected by the more recent information.” (15.7)*

**Response:** For streams on the 303(d) list, the water quality parameters that could be affected by invasive plant treatments are discussed (DEIS pp 186 – 202). The latest 303(d) list was recently made available and the FEIS has been updated to reflect the new information. Invasive plant treatments will not further degrade these water bodies.

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*“The analyses presented in the draft EIS indicate that waters within various parts of the project area do not currently meet Oregon State water quality criteria, including temperature (70 streams/stream reaches), sediment (10 streams), turbidity (1 stream reach), Ph and Chlorophyll a (3 lakes, 1 stream), and dissolved oxygen (1 lake, 1 stream) (p. 173). Planned activities under the Preferred Alternative (Alternative 2), such as, vegetation removal, burning and scarification would more likely further degrade water quality with respect to these parameters, especially where treatments would occur within 10 ft. of 303(d) listed waters (p. 59).” (15.8)*

**Response:** One should look to Table 39 of the DEIS for 303(d) listed streams that would have invasive plant sites proposed for treatment within 100 feet of the stream’s edge. This information has been updated in the FEIS to reflect the latest 303(d) list.

Neither alternative is expected to further degrade water quality with respect to the listed parameters, because implementation will follow all required precautions and because of the use of project design features developed specifically to minimize or eliminate adverse effects.

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*“In the Dry Paulina Creek, for example, burning and harrowing could result in increased sediment delivery until it is seeded and vegetation is re-established (p. 194). When roads and livestock management activities are added (p. 199) to invasive treatments, cumulative sediment delivery impacts could also be significant.” (15.9)*

**Response:** Table 15 of the DEIS shows that in the Dry Paulina Creek watershed, the scarification, burning, or fire line construction would not be allowed within 50 feet of the intermittent channels. A 50 foot buffer would also be left between the channel and an existing skid trail will help to filter potential sediment. The discussion on page 194 of the DEIS concludes that because of the small area to be treated and the low intensity of the ground disturbance, and the use of buffers near the stream, sediment would be negligible and would not result in any measurable increase in turbidity.

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*“Further, we recommend that the FS continue to coordinate with ODEQ as water quality restoration plans, including TMDLs, are developed and implemented to meet water quality standards. The final EIS should therefore include information regarding agreements in the 2002 MOU and*

*any recent amendments thereof to assure the public that water quality conditions within 303(d) listed waters would be protected and restored as the proposed project activities are implemented.” (15.11)*

*“TMDLs should be established for the Deschutes Basin before impacts are allowed. No further water quality impairment is allowed for 303(d)-listed streams under the Oregon Clean Water Act. The only way to make sure this standard is met is to not allow toxic herbicides in or near water.” (17.54)*

**Response: Forest Service responsibilities under the Clean Water Act are clarified in the Water Quality section of the FEIS. The Forest Service is actively participating with ODEQ in the development of TMDLs for 303(d) listed streams on National Forest System lands. ODEQ indicates that priority for the development of TMDLs will move to the Deschutes Basin in 2008 but will take at least a year to complete (Bonnie Lamb, personal communication 2007).**

**TMDLs are developed for the 303(d) listed parameters. There are no waterbodies listed for chemicals in the project area. Both action alternatives are consistent with “Forest Chemical Management” in Appendix F of the Memorandum of Agreement between the State and the Forest Service and would meet the State of Oregon water quality standards for toxic substances.**

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*“The proposed project has the potential to impact the Confederated Tribes of Warm Springs’ Indian Reservation resources. The boundary of this Indian Reservation includes portions of the Deschutes and Metolius Rivers, Lake Billy Chinook, and Lake Simtustus. The southern part of the Reservation is adjacent to the project area and waters originating from the Forests, such as Metolius, Deschutes, and Crooked Rivers are shared with the Tribes. In particular, Deschutes River serves as a source of drinking water for the Tribes and the Metolius River is a sacred place for the Tribes. Although not discussed in the draft EIS, these water bodies may not be meeting current Confederated Tribes of Warm Springs water quality standards, which were approved by EPA in 2003 and reviewed in 2006. Recently, EPA also reached agreement with ODEQ and the Tribes to develop and implement TMDLs for the Deschutes River basin.” (15.12)*

**Response: The FEIS addresses the CTWS water quality standards (Chapter 3.6). The primary difference between ODEQ water quality standards and CTWS standards affecting the action alternatives in this EIS relate to water temperatures. The analysis determined there would be no measurable increase in water temperatures.**

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*“The State asks the USFS to minimize negative effects on the environment by considering site-specific criteria in developing decisions for the use of the most effective tools. In all cases, impact on water quality must be considered to avoid surface and ground water contamination and to protect the beneficial uses.” (16.4)*

**Response: In compliance with Standards # 19 & 20, the interdisciplinary team utilized site-specific information to design effective treatments and criteria to minimize or eliminate adverse effects.**

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*“One of the pesticides on the proposed list, trichlopyr, was detected in surface waters during the USGS National Ambient Water Quality Assessment (NAWQA) studies of the Willamette Basin (<http://pubs.usgs.gov/circ/circ1161/nawqa91.d.html>). In addition, a few other pesticides proposed to be used in the DEIS were likely detected in other parts of the country as part of the NAWQA study. The number and frequency of detections of various herbicides found in the NAWQA study suggests that standard application practices may result in presence of herbicides in streams at detectable levels. These results emphasize the need to minimize use of chemical herbicide controls whenever feasible to limit inadvertent discharge of herbicides to waterbodies. It should also be noted that the occurrence in Oregon waters of some of these pesticides, such as chlorsulfuron, imazapic, imazapyr, metsulfuron methyl, sethoxydim, and sulfometuron methyl is unknown because of a lack of water quality data.” (16c.6)*

**Response: Project Design Features, listed in section 2.4 of the DEIS are aimed at minimizing or eliminating detrimental effects to water quality and are more restrictive than standard use practices.**

**The referenced USGS National Ambient Water Quality Assessment (NAWQA) studies of the Willamette Basin classifies National Forests and Grasslands as undeveloped. The majority of pesticides identified in the study were found in basins draining predominately agricultural or urban areas. The report states that “Only Atrazine and deethylatrazine were detected in streams draining forested basins (greater than 90 percent forest, by area), and these compounds were present at extremely low concentrations (0.002 to 0.004 µg/L)” (Wentz et al, 1998). Neither of these herbicides is proposed for use with this project.**

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*“As a result of a lawsuit filed against the Environmental Protection Agency (EPA) by the Washington Toxics Coalition (2002), a federal judge ordered that “buffer zones” be placed around salmon bearing streams for the application of certain pesticides. The buffers include a 20 yard no application zone adjacent to salmon bearing waters when specific pesticides are being applied by ground methods, and a 100 yard buffer during aerial applications. Of the 26 pesticides still being investigated for their potential affects on threatened and endangered salmon species, triclopyr is proposed for use on national forests. DEQ asks that USFS keep these restrictions in mind during the potential application of these pesticides. More information and maps of the affected areas can be found at: <http://www.epa.gov/espp/wtc/maps.htm>.” (16c.7)*

**Response: Of the herbicides discussed in the cited lawsuit, triclopyr is the only herbicide proposed for use in this project. The court order does not apply to**

Deschutes, Klamath, or Lake Counties), and where it does apply (salmon-supporting waters in Jefferson, Crook, Wheeler, and Grant Counties), it excludes noxious weed programs when certain routine safeguards are employed. See map at <http://www.epa.gov/oppfead1/endorsement/wtc/maps.htm#wtc>. These safeguards are incorporated into the Project Design Features of this project.

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*“High reliance on herbicides along roadside streams increases toxicity risks to water quality, aquatic organisms and fish from contaminated runoff and surface flow into streams.” (17.21)*

**Response:** The FEIS and Fisheries Biological Assessment have been updated to better address potential effects to aquatic organisms from proposed herbicide use. Adverse effects are minimized due to PDFs and buffers that limit the application method, rate and herbicide selection near streams and other water bodies.

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*“Herbicide use on the Ribbongrass along the Metolius River especially concerns us due to the Metolius River’s high water quality and significance to bull trout, redband trout, reintroduced salmon, etc. and high use by recreationalists who could be exposed to the herbicides.” (17.25)*

**Response:** Considerable effort has been made to design an effective treatment of the ribbongrass on the Metolius River that will preserve the water’s quality and its many beneficial uses. There is a serious risk of losing these beneficial uses to the invasive plants if they are not taken care of while the infestations are still relatively small. Risks to aquatic organisms would be minor and short-lived, and public health would not be adversely affected.

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*“Due to its high toxicity problems (cited in numerous parts of the DEIS), Picloram also has very high leaching and runoff potential and has contaminated wells.” (17.29)*

**Response:** Appendix D lists the properties, risks and design features for each herbicide. Picloram would not be used on certain soil types due to its potential mobility and longevity in ground water. Restrictions on application rates, method and frequency of use along with stream, well and spring buffers provide adequate layers of caution to prevent water contamination.

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*“Sulfometuron methyl poses high risks of water contamination and soil accumulation and should not be used.” (17.35)*

**Response:** Appendix D lists the properties, risks and design features for each herbicide. Sulfometuron methyl would not be used on certain soil types due to its potential mobility and longevity in soils. Restrictions on application rates, method and frequency of use along with stream, well and spring buffers provide adequate layers of caution to prevent water contamination and/or accumulation in soils.

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*“Why is there so much proposed back-sliding from more stringent water quality protection felt to be necessary in 1998 on the Deschutes National Forest?” (17.55)*

**Response:** The need for action is based on the current inventory of invasive plants. The 1998 project does not sufficiently address treatment of riparian species such as reed canarygrass and ribbongrass. Treatment in these areas will follow all label requirements, standards and guidelines, and PDFs for the protection of water quality.

*“There is no real discussion of the potentially harmful effects of herbicides in riparian zones though these are areas with some of the highest biodiversity. Yet there is substantial acreage of proposed toxic chemical use within 100 feet of streams, RHCAs, lakes, wetlands, springs and Riparian Reserves.” (17.56)*

**Response:** Effects of using herbicides in these areas is disclosed in Sections 3.4 (Native Vegetation), 3.5 (Soils), 3.6 (Water Quality), and 3.7 (Fisheries & Aquatics), and 3.9 (Wildlife). The potential for herbicides to adversely affect riparian areas have been minimized by the PDFs and buffers near streams and lakes. The PDFs and buffers limit the extent, rate, application method and herbicide selection sufficiently to minimize the risk of herbicides reaching water over a level of concern.

*“We are concerned by the heavy use of picloram proposed for riparian areas and by the toxicity to fish of aquatic formulations of glyphosate and other herbicides. Targeted plants are amenable to hand-pulling. Table 58 reveals lots of reasons for concern regarding herbicide impacts to aquatic macrophytes, aquatic invertebrates, algae and fish (for fish re: picloram and sethoxydim).” (17.57)*

**Response:** The mobility and toxicity of picloram has been addressed through buffers and PDFs. Delivery of picloram to surface water bodies would be avoided. Herbicide use on National Forests was estimated at 3 percent of total herbicide use in Oregon and Washington (USFS 2005a), and On the Deschutes and Ochoco National Forests, the use of picloram is limited to those species where no other effective herbicide is known (pp. 36 and 51). It also is not allowed within 50 feet of water (p. 52).

The discussion of the Risk Assessments and GLEAMS model has changed in the FEIS: the analysis for water concentration does not rely solely on the risk assessment predictions; rather, a site-specific analysis was conducted using local variables. Because of this, the ecotype analysis discussion and DEIS table 58 were not kept in the FEIS.

## Effects to Drinking Water

*“While DEQ recognizes that the application of herbicides is one of the most effective ways to control unwanted vegetation, DEQ thinks that the non-herbicidal options for addressing the vegetation should be*

*considered in areas that potentially impact public water supplies. As acknowledged in the DEIS, herbicides could negatively impact the water quality in streams and groundwater serving as public water supply sources.” (16c.10)*

**Response: The DEIS acknowledged that the use of herbicides near public water supplies could potentially impact them; therefore, project design features have been applied in such situations. PDFs direct that broadcast spraying would not occur in municipal watersheds without the consent of the water agency/association and that any treatments other than manual or biological would be coordinated with the municipal department in charge of the water system. (see PDFs 27, 28, 29 30; and p. 198-199).**

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*“DEQ recognizes that protecting water quality is a high priority for public land management, and within the municipal watersheds, this also includes protecting human health. Within the mission, budget, and legal authority, DEQ asks that the USFS consider local drinking water protection priorities when developing management plans for federal lands and facilities. Implementing protective actions and land use decisions can be very effective in providing clean source water to public intakes and wells. This will preserve the use of public funds that would otherwise be spent to upgrade treatment facilities to remove contaminants downstream.” (16c.8)*

**Response: The project has been designed to reduce or eliminate potential detrimental effects to water quality. The water quality analysis includes a discussion of potential effects and there are no expected adverse effects to drinking water.**

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*Most herbicides are not monitored at the intakes or wells for public water supplies as part of the routine requirements to meet federal drinking water standards. Most communities and public water providers do not have the resources to increase their monitoring capabilities when significant areas are sprayed adjacent to or upstream of their intake or well. (16c.11)*

**Response: The project does not propose the spraying of significant areas adjacent to or upstream of community wells (see Table 52 of the DEIS).**

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*“When the vegetation is removed from areas in close proximity to public water supply streams, an increase in erosion and sedimentation could also occur in the downstream reaches. Increased sedimentation can directly impact the public water system treatment operation, increasing maintenance costs, and increasing the risks of exposure to contaminants that adsorb onto the sediments.” (16c.12)*

**Response: None of the proposed treatments would remove vegetation along any public water supply streams to the point where erosion would impact public water**

**supplies (section 3.6). In areas where devegetation could cause erosion, erosion-control measures and revegetation would be implemented.**

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*“To prevent or minimize the impacts of herbicides and suspended sediments to public water supplies in Oregon, DEQ and DHS can provide more specific suggestions for site-specific best management practices that can be effective in protecting the drinking water for public intakes and wells. As with all of our state and federal partners, DEQ requests the USFS to select a treatment of invasive species in the municipal watersheds/aquifers to support the overall goal of providing the highest quality water possible to downstream intakes and wells.” (16c.13)*

**Response: The analysis identified areas where invasive plant sites overlapped municipal watersheds, wellhead protection areas, and identified recharge areas to facilitate implementation of appropriate PDFs. Both action alternatives are consistent with “Forest Chemical management” in Appendix F of the MOU between the Forest Service and ODEQ and both meet Oregon’s water quality standards for toxic substances.**

### Effects to Wildlife

*“We are especially concerned about herbicide impacts to: Bald eagle and wolverine (re: hexachlorobenzene in picloram & clopyralid), pygmy rabbits, horned and red-necked grebes, bufflehead and harlequin ducks, yellow rail, greater sage grouse, American peregrine falcon (re: HCB), gray flycatcher, tricolored blackbird, Oregon and Columbia Spotted frogs, Crater Lake tightcoil snail and management indicator species raptors and owls, as well as MIS great blue heron, other waterfowl, woodpeckers and elk.” (17.59)*

**Response: Impacts to these species are discussed in the Wildlife Report, BA and EIS. The PDFs and buffers are adequate to reduce the potential for exposure so that adverse effects are unlikely.**

### Effects to Non-Target Plants

*“How would native St. Johnswort be avoided in control?” (17.28)*

**Response: The DEIS acknowledges some common non-target plants may be killed, but effects would be small and short lived. Non-target vegetation will be protected from herbicide control whenever practical (PDF #5). Rare plants would be protected by barriers and buffers (PDFs 64, 65).**

**The majority of native St. Johnsworts (bog St. Johnswort and Scouler’s St. Johnswort) occur in more pristine wetlands dominated by native vegetation. These native usually do not occur in the dense stands of reed canarygrass that are**

**proposed for treatment. Reducing reed canarygrass is expected to protect and help restore native wetland habitats, thereby benefiting the native St. Johnswort species.**

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*“We are concerned that there are no estimates given for sensitive plant or survey and manage plant population numbers or their viability thresholds and that there is no guarantee that proposed herbicide use assumed to result in MIIH might not instead result in uplisting and loss of viability in violation of the ESA and FSM 2600 and FSM 2670.22. See handwritten comments for more detail and other concerns re: native and listed or survey and manage plants.” (17.51)*

**Response: The Oregon Natural Heritage Information Center (March 2007) ranks all rare, threatened, and endangered species (and their populations) in Oregon from a global perspective. The Forest Service uses this framework to estimate status. Currently, there are no federally-listed plants on the Deschutes or Ochoco National Forest, or Crooked River National Grassland; therefore, there would be no violation of the ESA.**

**For Forest Service Sensitive species, the Forest Service Manual directs an analysis of the significance of potential adverse effects on a population or its habitat with the area of concern and on the species as a whole. (FSM 2670.32). An impact must not result in loss of species viability or create significant trends toward federal listing. This analysis was completed for every Project Area Unit that involved Sensitive or Survey/Manage species in the vicinity of target invasive plants (EIS Section 3.4).**

**The analysis of effects to sensitive plant species considers the known locations of the plants as well as suitable habitat. The number of individual plants in a population is not readily known and not a critical factor in determining the effect of invasive plant treatments. PDFs would be applied to avoid any adverse effects to sensitive plants; therefore, the determination that individuals could be harmed is based on the assumption that where non-selective herbicides are needed to treat an invasive, there is potential for overspray or drift – but that is limited to individuals within the immediate vicinity of the invasives being treated.**

**Results of surveys for sensitive and survey/manage plant species were completed and results were disclosed in the DEIS (pp. 114-116 and Botany Report). The PDFs and buffers have been designed to avoid impacts on sensitive or survey/manage plants and these sites would be monitored. Buffers would be increased or additional mitigation employed if damage to non-target plants was detected (see Post-treatment Monitoring, Appendix F). Potential for effects to these species are thoroughly discussed in the Native Vegetation section of the EIS. There is ample evidence that invasive plants alter and deteriorate native plant habitats; careful treatment of invasive plants will protect sensitive plants in the long term.**

## Effects to Air Quality

*“Air quality may also be impacted in the short term due to access roads use, prescribed burning, and herbicide applications activities; and in the longer term due to traffic on dirt roads, emissions from vehicles and on-site operations, and cumulative impacts from surrounding activities such as agriculture and fire. Since the proposed action includes prescribed fire and the project area may include areas with sensitive populations, the final EIS should provide an overview of the smoke management program that would be followed to avoid public health impacts and potential ambient air quality exceedences. The smoke management program for the proposed project may include a number of elements discussed in Section VI of the Interim Air Quality Policy on Wildland and Prescribed Fires by EPA (see <http://www.epa.gov/EPA-AIR/1998/May/Day-21/a13616.htm>).” (15.14)*

*“It will also be important to monitor air quality and take corrective action if air quality standards are not met. Monitoring strategies should be tailored to local conditions because localized air quality impacts can be substantial, even though area-wide and/or long term monitoring may show compliance with air quality standards.” (15.5)*

**Response: A discussion of smoke management and air quality impacts has been added to Chapter 3 of the FEIS.**

## Analysis / Data

*“The EIS should weigh the effects of the treatment on the environment against the effects of not treating the infestation. Not treating an infestation due to short-term impacts of the treatment ignores the long-term effects of the infestation.” (8.10, 9.10)*

*“The EIS should weigh short-term and long-term effects of noxious weeds and the various treatment methods. The lack of effective treatment can produce serious long-term ecological effects that should be taken into account.” (10.7, 13.5)*

**Response: The DEIS considers the consequences of taking No Action. And although some of the invasive plant sites that have previously been authorized for treatment under earlier NEPA documents could continue to be controlled where necessary, the DEIS shows that the majority of inventoried sites would go untreated.**

**The consequences of taking no action are discussed throughout the EIS. The environmental harm that invasive plant species can cause in the long-term are discussed (e.g. loss of native plant habitats including Sensitive species p. 128; habitat losses for wildlife p. 325; adverse effects to Wilderness values p. 376).**

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*“The Forest Service should fully disclose the environmental impacts of the so-called “inert” ingredients in the herbicide formulations they proposed to use.” (11.8)*

*“Inert ingredients are a huge blind-spot in the decision-making process which violates the letter and spirit of NEPA’s mandate for full-disclosure and informed decision-making.” (11.10)*

*“There are also significant data gaps for use of the newer herbicides and for some herbicide formulations and toxic ‘inerts’.” (17.36)*

**Response: The risk assessments are considered the best available scientific information. Uncertainties are discussed at length in the R6 2005 FEIS. While in some cases inert ingredients are confidential, their toxicity was considered as part of the risk assessments. See section 3.2 of this FEIS.**

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*“The Source Water Assessments required by the 1996 Safe Drinking Water Act Amendments provide a database of information about the watersheds and aquifers that supply public water systems in Oregon. USFS can rely on state agency partners (DEQ and the Department of Human Services—Public Health) to access this information. USFS should consult with DEQ to ensure that the GIS shape files of the 5<sup>th</sup>-field watersheds and aquifer recharge areas are included in the USFS GIS data in this area.” (16c.14)*

*“In addition, DEQ is able to provide the GIS shape files on the most sensitive zones within those areas to supplement USFS data and coverages. The sensitive zones within the watersheds and recharge areas were identified by the state as part of the Source Water Assessment process. These areas can be used to prioritize protective actions within the 5<sup>th</sup>-field watersheds and recharge areas.” (16c.15)*

**Response: Information on the location of domestic water sources and recharge areas was obtained from Oregon Dept. of Environmental Quality (Drinking Water Protection Program), Forest Service special use permits, and Forest recreation specialists. The analysis shows PAUs that intersect wellhead protection areas (for wells and springs), municipal watersheds, and community water source areas. PDFs will apply in these areas to protect drinking water sources.**

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*“There are also many ill-defined and vague, unquantified terms used, such as “relatively minimal” or “low” level of risk. (17.40)*

**Response: Quantitative analysis has been provided where possible. Qualitative terminology is defined throughout the FEIS.**

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*“For instance, how are “thresholds of concern” defined and what ensures that they are sufficiently protective?” (17.41)*

**Response: A definition of the term threshold of concern was located on p. 78 of the DEIS. This definition has been clarified in the FEIS. Thresholds of concern are based on peer reviewed toxicological studies and are considered the best available science. Project design features adds layers of caution to account for uncertainty.**

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*“Although this purports to be a site-specific EIS, we think it would be advisable to create a more detailed site-level plan for each treatment area and allow for public comment before implementation. (11.13)*

**Response: Appendix A lists the invasive plant sites present within each Project Area Unit, the site type, and the proposed treatment for that site.**

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*“There should be significant attention and analysis in this DEIS as to whether the cumulative harms of herbicide use outweigh the benefits.” (17.47)*

**Response: The layers of caution and design features for this project are intended to avoid significant cumulative impacts from herbicide use. The consequences of taking no action are analyzed and compared with the impacts of treatment throughout the EIS; cumulative effects analysis was conducted and no adverse cumulative effects are expected to occur.**

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*“The GLEAMS model seems highly suspect since it is not calibrated with field data from forest and high desert natural ecosystem settings. The model is admitted not to take into account several significant factors (see DEIS p 228). This is not accurate science. Many assumptions seem biased and questionable.” (17.58)*

**Response: Risk assessments and models are used to predict potential exposures and compare them to scientifically derived thresholds of concern. The layers of caution integrated into this project go well beyond the model results to reduce the likelihood of adverse effects. SERA worksheets were completed for higher risk sites using site specific information such as soil type, average annual rainfall, herbicide type, and herbicide application rate. The results of the worksheets are described in the FEIS, Chapter 3.7.**

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*“Because of these unknown risks, DEQ encourages use of non-chemical alternatives with known risks wherever feasible, especially within riparian areas.” (16c.5)*

*“There are simply too many scientific data gaps, too weak of regulation on the part of the Environmental Protection Agency (which gives licenses to pollute and serves as a revolving door job agency for corporate executives of polluting companies) and too much exacting precision required in strict adherence to PDFs, label requirements, Region 6 guidelines, monitoring, etc. to give any assurance that harm will not happen to TES listed plant and wildlife species that would be sufficient to cause their uplisting or loss of viability or that water quality, human health, MIS and S&M species, soil fertility, etc. would not be significantly harmed.” (17.32)*

**Response: Uncertainty was addressed throughout Chapter 3 of the R6 2005 ROD. The Forest Service Risk Assessments were used to develop standards that go beyond EPA-regulated label requirements. Many layers of caution have been added to**

**respond to uncertainty. While there are no assurances that there would be no effect to individual TES listed species, the PDFs eliminate the potential for extensive or substantial risks (see DEIS pp. 132-133).**

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*“Accidental spills are always possible—especially in boating or wading to invasive plant sites on river islands and applications on slippery or steep banks. The effects of larger accidental spills from tank trucks and mixing chemicals should have been thoroughly analyzed in this DEIS as worst case scenarios.” (17.26)*

**Response: This proposal does not involve the direct application of herbicides to water—deliberately or accidentally. However, the Forest Service considered the potential for accidental spill when herbicides are used in the vicinity of water and built in layers of caution to minimize the risk of accidents and reduce potential for adverse effects from accidental spills. For example, the PDFs limit the daily quantity of herbicides to be transported to treatment sites and specify how herbicides would be carried across water. Additionally, Forest Service Handbook requires the use of a handling safety and spill response plan by the applicator.**

### **New Herbicides**

*“The EIS should also provide a mechanism to add new herbicides as they become available. There is already a new herbicide available for weeds such as Russian knapweed that requires a lower application rate than others on the market.” (10.10)*

**Response: Standard #16 of the R6 ROD states that “Additional herbicide mixtures may be added in the future at either the Forest Plan or project level through appropriate risk analysis and NEPA/ESA procedures.” When Risk Assessments are completed on new chemicals, the Forest Service then determines if the chemical should be used on National Forest System lands. A site-specific supplement to an existing NEPA document, a new project-level NEPA document, or an amendment to the Forest Plan would be required to implement use of the new chemical.**

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*“The impacts of newly approved herbicides post-dating this DEIS would not have been analyzed in this EIS, so this EIS can’t approve their use, as per the NEPA.” (17.8)*

**Response: All herbicides proposed for use in this project have been analyzed in the EIS. New herbicides would go through appropriate NEPA procedures prior to use.**

### **Revegetation / Restoration**

*“Table A-3 identifying areas of active revegetation does not identify any upland projects where seeds of local, native plant material is utilized.*

*Although “Guidelines for Revegetation of Invasive Weed Sites and Other Disturbed Areas on National Forest and Grasslands in the Pacific Northwest” is referenced and included in Appendix E, it looks as if no attempt is being made to follow these guidelines. We appreciate the fact that high quality sites are of the highest priority for action, but would recommend some mention of the utilization of native plant materials that your Forests are in the process of developing. Perhaps a demonstration area could be proposed.” (9.7)*

**Response: Regional LRMP standard #13 requires native plant materials to be the first choice where active revegetation is necessary. The Forests and Grassland have been actively collecting and propagating seeds of native shrubs, grasses, and forbs and using these materials in revegetation projects. For example, in 2006, 50,000 native basin wild rye grass plugs were planted on approximately 130 acres of the Grassland; 965 lbs. of native grass seed were harvested and purchased by Paulina District as a result of seed propagation contracts; and 473 lbs. of native grass seeds were produced by seed growers for the Deschutes NF. Seeds and seedlings of native plants are used in a variety of revegetation projects aimed to restore native plant habitats.**

### **Adaptive Management / Monitoring**

*“The treatment chosen for any specific weed population should have the highest probability of success. Success should be defined by achievement of measurable objectives, not by acres treated in a given year or what type of treatment is implemented. Weed treatment plans often focus too heavily on acres treated and not on whether or not those acres were restored to a better condition.” (8.7)*

*“Clearly stated objectives (i.e. desired future condition) allow for adaptive management, where the local manager can modify the treatment approach to reflect lessons learned. If the treatment techniques are too specific, adaptive management cannot be applied, and the success of the project may suffer.” (8.8)*

*“The EIS should be goal based, where the local manager has the ability to use all the available techniques.” (8.9)*

*“Clearly stated objectives (i.e. desired future conditions) allow for adaptive management, where the local manager can modify the treatment approach to reflect lessons learned. If the treatment techniques are too specific, adaptive management cannot be applied, and the success of the project may suffer. The EIS should be goal based, where the local manager has the ability to use all the available techniques.” (9.9)*

*“The EIS should identify measurable results. Listing the number of acres treated per year does not give an accurate picture of the success of the project. Measurable objectives such as percent reduction in plant numbers or ounces of herbicide used allow for adaptive management to improve the probability of project success.” (10.9)*

**Response:** Effectiveness of each alternative was compared using number of sites that could be treated and the number of tools available. The fewer acres that are effectively treated at one time will likely lead to greater total acres needing to be treated due to spread. So although acres treated gives a numerical value to the alternatives, it is the conclusion of effectiveness (such as on p. 96 of the DEIS) that provides the difference between the alternatives.

Ultimately, success of the project (whether or not objectives are being met) will be measured during treatment and post-treatment monitoring. Implementation planning and monitoring forms shown in Appendix F have been improved so that site objectives and desired future condition information is recorded.

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*“Where there is recreational heavy use, the plants are usually underneath the bitterbrush. In many cases, the manual removal crews brought in by the Forest Service fail to investigate these locations.” (4.5)*

**Response:** The EIS recognizes the difficulty of these site types (see PAU 11-62 in Appendix A for example). Manual treatments may not be practical in some of these instances and the action alternatives provide more choices of herbicides such as clopyralid, which will affect the spotted knapweed that commonly grows under bitterbrush without affecting the bitterbrush (DEIS p. 122). Additionally, treatment and post-treatment monitoring will be used to determine if objectives are being met at a site.

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*“DEQ supports establishment of native plant communities and functions at the impacted sites to achieve system potential vegetation in riparian buffers. In order to minimize short term impacts and avoid unintended consequences, DEQ asks the USFS to evaluate and monitor individual project as well as cumulative impacts. DEQ asks the USFS to be cautious especially where the invasive plant infestations are within riparian buffers adjacent to waterbodies on the 303(d) list.” (16c.2)*

**Response:** Treatment and post-treatment monitoring is proposed for assessing accomplishment of site objectives and determining if PDFs are effective as predicted in reducing adverse effects. The R6 monitoring protocol is described in Appendix F.

### Forest Plan Amendment

*“There should be no Forest Plan amendment changes! No analysis is given as to reasons for the current standards, which protect the values this DEIS professes to want to protect (wildlife, fisheries, water quality, ecological functioning, biodiversity, human health, soil productivity, etc.) from toxicity hazards. There is also no justification given for changing these standards that outweighs the value of their protection. Such precautions are consistent with the Region 6 goals (see above) and the Region 6 DEIS emphasis on prevention and the stated goal of reducing herbicide use over time (as explained above).” (17.30)*

**Response:** As described on p. 40 of the DEIS, the proposed amendments are intended to make the Ochoco LRMP consistent with and complementary to the R6 2005 ROD and allow use of the tools made available for the treatment of invasive plants according to the standards. The R6 2005 ROD anticipated these types of amendments: “Inconsistencies between new and existing standards will be reconciled on a Forest-by-Forest basis...” (R6 2005 ROD pg 3). Project-specific analysis is included on p. 385 of the DEIS.

### **Laws, Regulations, Policy**

*“How does this proposal comply with Executive Order 13112, and Linda Goodman’s direction on prevention of October 1, 2004?” (11.14)*

**Response:** The Executive Order 13112 of 1999 places certain duties on federal agencies in the prevention and control of invasive species. In response to the order, the Forest Service prepared a National Strategy to guide Forest Service Invasive Plant programs. That strategy involves four categories of effort: 1) prevention; 2) early detection and rapid response; 3) control and management; and 4) rehabilitation and restoration. Based on that strategy and needs specific to the Pacific Northwest, Region 6 prepared the R6 2005 FEIS which provides management direction for prevention and treatment of invasive plant sites.

**This project complies with direction in the R6 2005 ROD. It also addresses three of the four program elements of the national strategy: control and management, early detection/rapid response, and rehabilitation. In these ways it complies with the Executive Order.**

**Prevention practices were adopted by the Deschutes & Ochoco NFs and Crooked River Grassland in response to the Regional Forester’s direction of 2004 (included in the EIS, Appendix G).**

### **Tribal Consultation**

*“Executive Order (EO) 13175 (Consultation and Coordination with Indian Tribal Governments) requires agencies of the U.S. government “to work with Indian tribes on a government-to-government basis to address issues concerning Indian tribal self-government, trust resources, and Indian tribal treaty and other rights.” The final EIS should include a discussion about the consultations FS has had with the Tribes, their concerns, and a discussion of how issues raised in the consultations with the tribes were addressed, especially impacts to water quality and air quality due to smoke from burning activities.” (15.13)*

*“The FS should also work with the Confederated Tribes of Warm Springs to address their water quality issues, if any. The final EIS should also include additional information as explained in our comments that follow.” (15.13)*

**Response: Chapter 4 includes information on the consultation that has taken place with the Confederated Tribes of the Warm Springs.**

### Miscellaneous

*“One of the proposed actions for Canada Thistle is mechanical treatment. Suppression and control of Canada thistle populations using mechanical methods can be effective if combined with chemical treatments. However, studies have shown that mechanical treatments can also backfire. Careful planning, scheduling and implementing of treatments will increase the effectiveness of the treatments.” (8.17, 9.17)*

**Response: The treatment prescribed is actually mechanical/chemical as described on p. 44, Appendix A. This is clarified in Table A-1 Project Area Summary Report.**

*“Houndstongue is carried back and forth across the Forest boundary onto adjacent lands by cattle, and also by the many species of wildlife; particularly elk and deer. We have personally observed herds of elk with numerous houndstongue seeds hanging on their lower bodies.” (14.6)*

**Response: The DEIS recognizes that cattle as well as wildlife can spread invasive plants (pp. 87, 354).**

*“Because of concerns about water quality and missing information, we have assigned a rating of EC-1 (Environmental Concerns - Adequate) to the draft EIS. This rating and a summary of our comments will be published in the Federal Register.” (15.8)*

**Response: The FEIS includes additional information, as noted in previous responses, to respond to environmental concerns.**

*“We also incorporate by reference as part of these comments our enclosed comments written on pages of the DEIS to elaborate on concerns in more detail and contextualize comments.” (17.7)*

**Response: Handwritten comments were reviewed by the interdisciplinary team when responding to these comments and finalizing the EIS.**

*“We request copies (hard copies by mail) of all specialist reports related to this EIS and related technical documentation in the project record for botany, water quality, fisheries, soils, wildlife, human health, range, cost effectiveness, etc. and all biological assessments pertinent to the Deschutes and Ochoco National Forests and the Crooked River National Grassland (CRNG) for this project.” (17.14)*

**Response: Information request**

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*“In general, NEPA procedural concerns in regard to reaching a well informed decision include: not much difference in project design and outcomes offered by the two action alternatives, insufficient and biased cumulative effects analysis, insufficient analysis of the impacts of herbicide use in most sections of the DEIS, failure to include analysis of a worst case scenario herbicide spill, failure to disclose relevant information and science in parts of the analysis, and an insufficient range of alternatives.” (17.38)*

**Response:** These statements have been addressed in previous responses.

### Prevention / Education

*“Prevention is the most cost-effective method of dealing with noxious weeds. Every Forest Service employee should receive training to identify key noxious weed species and sites at risk to invasions. Fire and timber crews, especially, work in remote areas where timely identification of new weed sites is critical.” (10.5, 13.4)*

*“As a central part of the integrated weed management program we urge the Forest Service to explicitly consider avoiding and/or limiting activities that increase the risk of invasive species including activities that disturb soil (e.g. logging, OHVs, livestock grazing, road activities, etc.), activities that open the canopy and increase the availability of light, water, and nutrients for the growth of invasive species (e.g. logging, fuel reduction, brush control), and activities that provide vectors for the spread of weed seeds (e.g. roads, OHVs, logging, grazing).” (11.2)*

*“We should nevertheless continue to strive to avoid human-induced environmental modifications that increase the risk of weed spread: soil disturbance, native canopy removal, and seed dispersal vectors.” (11.7)*

*“Further, DEQ encourages the use of prevention standards in October 2005 Record of Decision for Preventing and Managing Invasive Plants to avoid infestation of new invasive species population on national forests. DEQ also encourages the USFS to consider implementing additional preventive measures such as limiting OHV uses and closing or restricting access to non-essential roads.” (16c.3)*

*“They don’t address the root of the problem—invasive plant introduction and dispersal vectors.” (17.45)*

**Response:** Forests in Region 6 are required under the 2005 R6 ROD to address invasive plant introduction, establishment and spread during project planning (standard #1). The ROD includes other prevention standards as well. In addition to these standards, the Central Oregon Forests have adopted a list of invasive species prevention practices that will minimize the introduction, establishment, and spread of invasives. These prevention practices are included in the EIS as Appendix G to give the public a fuller picture of the invasive plant program. Prevention is an

**ongoing consideration in managing national Forests, regardless of the decision resulting from this EIS.**

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*“Heavy reliance on herbicides along roadways ignores the problems of continued dispersal of invasives from vehicles (the root cause) and higher risks of human exposure to toxins along roadways. Herbicide use would likely continue there indefinitely as long as vehicle vectors are not controlled and road shoulders are not re-vegetated with native plants.” (17.20)*

**Response: Prevention is part of the Forests and Grassland strategy for reducing the rate of spread of invasive plants along roads. Passive and active revegetation with non-invasive plants would occur. For instance, some sections of Hwy 97 were naturally revegetated three years after initial treatment (p. 38 DEIS). Herbicides would be used along with prevention and revegetation, rather than to their exclusion.**

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*“There should be site-specific plans for prevention of invasives identified and analyzed in this EIS. There is no other NEPA process opportunity for focused and detailed site-specific prevention strategizing to take place and be part of integrated decision-making to determine appropriate control measures.” (17.50)*

**Response: Prevention must be considered in all site-specific project assessments as per the R6 2005 ROD. All activities on National Forest lands are subject to the prevention standards. These are not connected actions because treatments of invasive plants would be needed regardless of the site-specific prevention measures taken. The relationship between prevention and treatment was fully explored in the R6 2005 FEIS to which our analysis is tiered.**

### **Partnerships / Coordination / Cooperation**

*“Currently there is a tri-county yellowflag iris control effort being implemented along the Deschutes, Crooked and Metolius Rivers. The Metolius River infestation is located on both Federal and private lands. The CRNG area has this species using the irrigation canals as a transport system. Currently this population does not extend past Lake Billy Chinook, it is relatively small and at the present time control efforts appear to be having positive results.” (8.15, 9.15)*

*“Cooperation and partnerships with agencies, organizations, and private landowners have a significant impact on the spread of noxious weeds between land ownerships. The Deschutes and Ochoco National Forests and Crooked River National Grassland should encourage these partnerships when possible.” (10.6, 13.3)*

*“DEQ supports USFS’ project design features (PDF) 7 and 8 to establish communication and to coordinate with the public water system operator and community downstream of the USFS land management areas. DEQ also supports (PDF 26) the USFS’ intent to follow municipal watershed agreements and encourages the USFS to develop them with water system operators where there is not one. Further, there are no requirements to develop or implement “drinking water protection plans” in Oregon, but many communities elect to move forward voluntarily. DEQ encourages USFS to be involved in the planning process and protection of that source area.” (16c.9)*

*“The Deschutes and Ochoco National Forests and the Crooked River National Grassland are essential partners in addressing Oregon’s invasive noxious weed problems.” (16.2)*

*“While I can manage my cattle to be out of the houndstongue infested areas after the seed hardens and can be transferred by animal hair, elk and other wildlife are moving through the area year around. The only way to limit spread and reduce infested areas is through aggressive treatment in partnership with private landowners and the County weed district.” (17.7)*

*“Some of the worst infestations are on private land adjacent to the national forest. Deschutes County has a weed specialist who is still encouraging landowners to control their weeds. As a Deschutes County Planning Commissioner, I am concerned that no fines have been levied against some landowners. I would appreciate working with the Forest Service to encourage the Deschutes County Commissioners to require penalties for the worst offenders. I believe that the County Commissioners need to hear about the severity of this problem.” (4.8)*

**Response: The Forest Service recognizes the importance of partnerships and cooperation with local agencies and organizations to address invasive plant and noxious weed problems. The Forests work with the Oregon Department of Agriculture, the various county weed departments, Bureau of Land Management, the Native Plant Society, and others. We intend to continue to coordinate with other agencies and groups during implementation of this project.**

### **Outside the Scope of the EIS**

*“An interest of our Road Dept. is the spraying of County Road Shoulders for total vegetation control and also spraying brush and small trees within our right-of-ways to help maintain visibility and to maintain the integrity of the road and road shoulder. Using herbicides to clear right-of-way is much more cost effective than mechanical means such as mowing.” (1.3)*

**Response: The treatment of unwanted vegetation is not part of the current project and is outside the scope of this analysis. Use of herbicides to control unwanted**

**vegetation, such as for maintaining visibility would have to be addressed in a separate environmental analysis.**

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*“I would like to add to your noxious weed list one of the worst and least noticed weeds: tumbleweed, Russian thistle....It can be found on the roadside and moving into hay fields literally all the way between Bend and Sisters. It is on most of the unused disturbed ground in Bend, even down by the Southern River Crossing. No one is paying attention. I called the county weed man but have seen no effort taken yet.” (3.1)*

**Response: The treatment of invasive plants is not limited to those listed in this EIS. However, treatment of invasive plant sites outside of National Forest System lands is outside the scope of this project.**

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*“Additional national forest road closures would be very helpful in the control of invasive species. Many of the existing roads in our area are merely duplicates of others that reach the same point.” (4.7)*

*“But we have to treat the causes and not just the symptoms... most of the identified weed sites are located along roads which have chronic soil disturbance, limited canopy of native plants, and chronic seed dispersal vectors. After these treatments the FS should prioritize closing the roads that pose the greatest problems.” (11.3)*

**Response: The DEIS recognizes that vehicles on roads are a source of invasive plant introduction and spread. However, road closures are outside the scope of this analysis. The R6 2005 ROD added a standard to Forest Plans that requires the consideration of invasive plants and their spread during project planning; so as the Forest Service implements the new travel management rule (by designating roads, trails, and areas that will remain open to motor vehicle use), invasive plants will be addressed. Also see response to 11.2 (prevention).**

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*“You also need to look at your future program of work. Fuel reduction presents a significant and growing threat of invasive weeds because it creates ideal conditions for weeds – it’s a widespread and chronic activity that disturbs soil, increases light and water availability, and increases weed vectors. The same could be said of OHVs. The DEIS fails to incorporate these old, new, and emerging threats into a comprehensive NEPA analysis.” (11.4)*

**Response: This EIS is limited in scope to the treatment of invasive plant sites. As stated in response to 11.2, Forests are required to consider invasive plants during all project planning. For this project, the EIS includes Project Design Features to prevent the spread of invasives during treatment activities (DEIS p. 41).**

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*“We think that climate change will increasingly disturb and displace native vegetation, lengthen growing seasons, and increase the risk of weeds in the coming decades. Let’s avoid a situation in the future when we may find ourselves throwing tons of chemicals at waves of “invasives” that are unstoppable because of the overwhelming influence of climate change.” (11.5)*

*“Let’s try to distinguish between “new arrivals” from the south and from lower elevations (which would be expected due to climate change) versus “true invaders” from other continents.” (11.6)*

**Response: The focus of this project is on invasive plants which are defined as an alien plant species whose introduction does or is likely to cause economic or environmental harm or harm to human health (Executive Order 13112). The use of an early-detection/rapid response strategy may become increasingly important for dealing with new invasions quickly while the populations are small.**

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*“Keep workers out of areas that have hazardous trees and snags that may pose a safety hazard. If you can’t make that promise, please disclose the cumulative impacts of lost snag habitat across 14,000 acres and surrounding hazard zones.” (11.11)*

**Response: Snag removal is not part of the invasive plant treatment proposal.**

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*“The draft EIS invasive plant inventory did not document the existence of aquatic invaders. As a result, the document does not address invasive plants floating or submerged in water. Because aquatic invasives are an emerging issue on National Forest land and elsewhere, EPA encourages the Forest Service to include at-risk water bodies (such as those used for recreational purposes) in future monitoring and inventory efforts. If there are infestations of aquatic invasive plants (floating or submerged in water) on the Forests, we recommend that the final EIS include information about such infestations and how they would be treated to prevent deterioration of water quality within waterbodies found on the Forests.” (15.6)*

**Response: The EIS is focused on treatment tools made available by the R6 2005 FEIS, which did not address floating or submerged invasives. Thus, treatment of infestations of floating and submerged aquatic invasive plants is outside the scope of this EIS. Aquatic invasives are not currently known to threaten streams or lakes on the Forests or Grassland. If such species were to become established on the Deschutes or Ochoco NF, or Crooked River National Grassland, additional NEPA would be required to allow treatment.**

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*“We incorporate by reference as part of these comments our comments on and appeal of the Region 6 Invasive Plant Program Final Environmental Impact Statement (USFS 2005a), for which our concerns were not resolved and to which much of the analysis for this DEIS is tiered.” (17.6)*

**Response:** The comment does not state which concerns were not resolved in the appeal of the regional document. The 2005 ROD was affirmed after a “deliberative and extensive review process.” (August 15, 2006 Appeal Decision, [http://www.fs.fed.us/emc/applit/includes/woappdec/r6\\_ipp\\_decision.pdf](http://www.fs.fed.us/emc/applit/includes/woappdec/r6_ipp_decision.pdf)).

### **General Statements about the Purpose and Need – No Response Necessary**

*“Further, we think the tools the Forest Service is currently authorized to use to fight invasive plants are woefully insufficient to win the battle to effectively control and manage weed infestations in wildland environments.” (8.2, 9.2)*

*“The Crooked River Weed Management Area agrees that noxious weeds are a major threat to our forests and grasslands.” (10.1)“*

*The tools and funding available to the Forest Service until now have been inadequate to even slow the spread of noxious weeds.” (10.2)*

*“Invasive plants have displaced native vegetation in areas of Sunriver and the neighboring community.” (12.2)*

*“DEQ recognizes that invasive species present significant risks to ecosystem health and effective control mechanisms are needed to protect and restore national forests. It is DEQ’s understanding that the purpose of the proposed projects is to eradicate, contain, and control invasive plant infestations, and to reverse the negative impacts caused by invasive plants.” (16c.1)*

*“The state of Oregon believes it is essential to protect the state’s natural resources from invasive plants and noxious weeds. Invasive noxious weeds are causing significant environmental impacts and are costing Oregon millions annually in economic losses.” (16.1)*

**Response:** Thank you for your comment.

### **General Statements about the DEIS / No Response Necessary**

*“The state also supports the Early Detection/ Rapid Response (EDRR) strategy in order to aggressively control new invasive species in a timely manner in effort to minimize both of the invasive weeds and of herbicide use across the landscape.” (16.5)*

*“The Oregon Department of Agriculture (ODA) Noxious Weed Control Program has partnered and worked with the Deschutes and Ochoco National Forests and the Crooked River National Grassland to address noxious weeds on National Forest System Lands in central Oregon. ODA believes it is essential to protect the natural resources of the state from invasive plants and noxious weeds. ODA also believes that an integrated*

*approach is fundamental for success in controlling invasive noxious weeds to restore healthy natural communities.” (16a.1)*

*“I do endorse the actions to take care of weeds that displace native plants.” (3.2)*

*“I appreciate this opportunity and please know that I am thoroughly supportive of your efforts.” (4.9)*

*“Don’t poison our wildlands! Do your job – protect our public lands, water and wildlife!” (5.3)*

*“The focus for the USFS should be on decreasing the risks presented by the potential contaminant sources on national forests. (16c.16)*

*“Please continue to keep me informed of the progress with your EIS as I am looking forward to its completion.” (1.5)*

*“The Weed Board wholeheartedly agrees that invasive plants are a major threat to the ecological integrity of our forests and grasslands in Central Oregon, and we commend the Forest Service for taking this matter seriously and making it a high priority.” (8.1, 9.1)*

*“Again, we applaud your efforts to proactively address the serious problem of invasive plant spread in the forests and grasslands of Central Oregon and we appreciate the opportunity to comment on your proposed strategies. We look forward to your finalizing of this EIS and moving quickly to the implementation phase. Effective implementation of the proposed action is critical and we look forward to working with you on this important endeavor.” (8.19)*

*“We agree that invasive plants are one of the major threats to the ecological integrity of our forests and grasslands in Central Oregon, and we commend the Forest Service for taking this matter seriously and making it a high priority.” (9.1)*

*“Yet we also recognize and appreciate the environmental concerns regarding herbicide use and the need to be cautious and judicious in applying them.” (9.3)*

*“The Draft EIS is well written, thorough, and contains ample amounts of relevant information.” (9.4)*

*“The new treatment strategies in the proposed action alternative for addressing invasive plant infestations on National Forest lands is a major step forward in the battle with weeds. If implemented, it should provide local land managers with some key tools that are required to have a realistic chance of effectively controlling weed populations in remote, wildland environments.” (9.5)*

*“This document was a long time coming, but we want to praise your ID Team members for such an excellent, comprehensive draft EIS. We applaud the efforts to proactively address the serious problem of invasive plant spread in the forests and grasslands of Central Oregon.” (9.19)*

*“We share the Forest Service’s concern about the spread of invasive species. We should do all we can to protect the integrity of native plant communities.” (11.1)*

*“Sunriver supports the reduction of invasive species on federal lands and the protection of water quality, sensitive plant species, and identified fish and wildlife.” (12.4)*

*“I strongly support the preferred alternative, and believe it provides the range of tools needed to handle houndstongue and other noxious and invasive species.” (14.4)*

*“Thank you for the opportunity to comment. I urge you to complete the EIS by the planned date of June 15 in order to bring certainty to future treatment opportunities.” (14.8)*

*“EPA understands the risks invasive plants may pose to resources within the Forests, if these were not treated. Thus, we appreciate FS planning efforts for this project, especially the consideration of public scoping comments in the development of this EIS and incorporation of Integrated Pest Management (IPM) principles in the project plan.” (15.1)*

*“The Crook County SWCD serves as the Weed Board for Crook County. The SWCD understands that noxious weeds are a major threat to our forests and grassland. The alternative proposed in the Draft EIS will provide important tools in the battle with noxious weeds.” (13.1)*

*“The DEIS identifies well thought out treatment strategies to deal with noxious weed sites currently identified and provides an opportunity to treat newly identified sites when control or eradication is relatively easy and cost-efficient. The Draft EIS also thoroughly addresses concerns regarding the use of herbicides.” (13.2)*

*“We recommend that the FS continue to work with Oregon Department of Environmental Quality (ODEQ) to assure that the state water quality standards will be met.” (15.4)*

*“Although TMDLs for 303(d) listed waters within the project area are not yet available, we recognize that ODEQ and FS have made significant progress in reaching agreement on working cooperatively to meet State and Federal water quality rules and regulations (Memorandum of Understanding (MOU), 2002). EPA supports decisions that have been reached between the two agencies, especially the FS commitment to manage National Forest System lands to protect, restore and maintain water quality so that Federal and state water quality laws and regulations are met or exceeded to support designated uses.” (15.10)*

*“We also recognize and appreciate the environmental concerns regarding herbicide use and the need to be cautious and judicious in applying them.” (8.3)*

*“Overall, we think the Draft EIS is well written, thorough, and contained ample amounts of relevant information.” (8.4)*

*“The treatment strategies in the proposed action alternative for addressing invasive plant infestations on National Forest lands is a major step forward in the battle with weeds. If implemented, it should provide local land managers with some key tools that are required to have a realistic chance of effectively controlling weed populations in remote, wildland environments.” (8.5)*

*“We also think that the alternative does a good job of establishing sideboards on herbicide use to avoid accidental applications that may have adverse effects on fish, wildlife, or water quality.” (8.6)*

*“The alternative proposed in the Draft EIS will provide important tools in the battle with noxious weeds. The Draft EIS identifies well thought out treatment strategies to deal with noxious weed sites currently identified and provides an opportunity to treat newly identified sites when control or eradication is relatively easy and cost-efficient.” (10.3)*

*“The DEIS also thoroughly addresses concerns regarding the use of herbicides.” (10.4)*

*“For all we know, these herbicide companies are laundering hazardous waste through the inert ingredient stream.” (11.9)*

*“Herbicides should not be seen as a panacea; instead they are worse than just patching up symptoms (invasive plant appearance) with bandaids because they cause significant harm themselves.” (17.44)*

*“Inaccurate and unprofessional science is also suggested by many highly questionable assumptions and biased assumptions throughout.” (17.39)*

**Response: Thank you for your comment.**

**Government Agency Comment Letters**

Letters from federal, state, and local government agencies are reproduced here per FSH 24.1.1(b). All comment letters are available in the project file in the Deschutes National Forest headquarters office, Bend, Oregon.



Theodore R. Kulongoski, Governor



March 19, 2007

Leslie Weldon, Forest Supervisor, Deschutes NF  
Deschutes National Forest Headquarters  
1001 SW Emkay Drive  
Bend OR 97702

Dear Ms. Weldon:

The State of Oregon appreciates the opportunity to provide comments on the Draft Environmental Impact Statement (DEIS) Site Specific Invasive Plant Treatments for Deschutes and Ochoco National Forests and the Crooked River National Grassland.

The state of Oregon believes it is essential to protect the state's natural resources from invasive plants and noxious weeds. Invasive noxious weeds are causing significant environmental impacts and are costing Oregon millions annually in economic losses. The Deschutes and Ochoco National Forests and the Crooked River National Grassland are essential partners in addressing Oregon's invasive noxious weed problems.

The state of Oregon supports an integrated weed management approach and believes in utilizing all tools available including chemical, mechanical, and biological control methods as well as prescribed fire for control projects. The State asks the USFS to minimize negative effects on the environment by considering site-specific criteria in developing decisions for the use of the most effective tools. In all cases, impact on water quality must be considered to avoid surface and ground water contamination and to protect the beneficial uses.

The state also supports the Early Detection/ Rapid Response (EDRR) strategy in order to aggressively control new invasive species in a timely manner in effort to minimize both of the invasive weeds and of herbicide use across the landscape.

The following are specific comments from three state natural resource agencies that include: Oregon Department of Agriculture, Noxious Weed Control Program (ODA), Oregon Department of Forestry (ODF) and the Oregon Department of Environmental Quality (DEQ).



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
**REGION 10**  
1200 Sixth Avenue  
Seattle, WA 98101

March 19, 2007

Reply To  
Attn Of: ETPA-088

07-002-AFS

Leslie Weldon, Supervisor  
Deschutes National Forest  
1001 SW Emkay Dr.  
Bend, OR 97702

Dear Ms. Weldon:

The U.S. Environmental Protection Agency (EPA) has reviewed the draft Environmental Impact Statement (EIS) for the proposed **Invasive Plant Treatments** project (CEQ No. 20070025) within Deschutes and Ochoco National Forests and Crooked River National Grassland in Crook, Deschutes, Jefferson, Grant, Klamath, Lake, and Wheeler Counties, OR. Our review was conducted in accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act. Section 309, independent of NEPA, specifically directs EPA to review and comment in writing on the environmental impacts associated with all major federal actions. Under our policies and procedures, we also evaluate the document's adequacy in meeting NEPA requirements.

The draft EIS evaluates potential environmental effects of a proposal to eradicate, control, suppress, and contain invasive plants on nearly 52,015 acres of the National Forests and Grassland ("Forests"), of which 14,547 acres are currently infested and targeted for treatment in the next 15 years. Invasive plants are spreading at a rate of 8-12% per year and are affecting both public and other lands. The US Forest Service (FS) therefore needs to take action to treat this infestation before their adverse environmental effects to native ecosystem processes become more significant. Before such action can be taken, however, the FS developed and analyzed the following three alternative actions to assess what environmental effects, if any, would be associated with the proposed action.

1. **No action (Alternative 1).** Under this alternative, the FS would continue current invasive plant management, without change. Meanwhile, invasive plants would continue to spread at the current rate of up to 12% per year and to generate associated effects.
2. **Preferred Alternative (Proposed action).** Under this action alternative, the FS would treat invasive plants using a combination of manual, mechanical, biological, and herbicides, and restoration to eradicate, control, suppress, and contain the invasive species. Other treatment methods would include a combination of hand-pulling, cutting, mowing, weed whacking, tilling, assorted biological controls, and selective/hand, spot, and broadcast applications of herbicides. The proposed action would also include Project Area Unit (PAU) designation and Project Design Features



"Todd Pfeiffer"  
<tpfeiffer@co.klamath.or.us>

01/30/2007 10:16 AM

To: <comments-pacificnorthwest-deschutes@fs.fed.us>  
cc:  
Subject: DEIS for Deschutes National Forest

Thank you for sending me a copy of the DEIS for review and comment. I have looked it over and I am in support of Alternative # 2. Fremont and Winema National Forests already have noxious weed spraying in place within Klamath County and I will be glad to see the same in the Deschutes National Forest. The Klamath County Weed Control does contract work for other agencies within the Deschutes National Forest Boundary and the inability to use herbicides greatly hampers our efforts. Some of our areas of concern that we would like listed as weed sites are County and Public Road Right-of-Ways, Power Line Right-of-Ways and Gas Line Right-of-Ways.

An interest of our Road Department is the spraying of County Road Shoulders for total vegetation control and also spraying brush and small trees within our right-of-ways to help maintain visibility and to maintain the integrity of the road and road shoulder. Using herbicides to clear right-of-way is much more cost effective than mechanical means such as mowing.

Please continue to keep me informed of the progress with your EIS as I am looking forward to its completion.

Sincerely,  
Todd Pfeiffer  
Klamath County Vegetation Manager  
Klamath County Weed Control  
305 Main Street  
Klamath Falls, OR 97601

received 3/10/07

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## Weed Advisory Board

61150 SE 27th St • Bend, Oregon 97702  
(541) 322-7135 • FAX (541) 388-2719

Leslie Weldon and Jeff Walters, Forest Supervisors  
Deschutes National Forest Headquarters  
1001 SW Emkay Drive  
Bend, OR 97702

Subject: Comments on the DEIS for Invasive Plants Treatments on the Deschutes and  
Ochoco National Forests and the Crooked River National Grassland

Dear Ms. Weldon and Mr. Walters:

Thank you for the opportunity to comment on this important issue. The Deschutes County Weed Board is an advisory committee appointed by the County Commissioners that helps set program priorities. They are to assist in increasing public awareness of the spread of noxious weeds and in keeping the Board of Commissioners and budget committees informed of problems regarding funding and management of the noxious weed program.

### Mission Statement:

Work cooperatively to promote and implement noxious weed control in Deschutes County; to contain existing weed populations and eradicate new invaders; to raise the value of the land economically and biologically; to improve the health of the community, promote stewardship, preserve natural resources and provide examples and leadership for other counties and states in effective vegetation management.

The Weed Board wholeheartedly agrees that invasive plants are a major threat to the ecological integrity of our forests and grasslands in Central Oregon, and we commend the Forest Service for taking this matter seriously and making it a high priority. Further, we think the tools the Forest Service is currently authorized to use to fight invasive plants are woefully insufficient to win the battle to effectively control and manage weed infestations in wildland environments. Yet, we also recognize and appreciate the environmental concerns regarding herbicide use and the need to be cautious and judicious in applying them. It is with these priorities in mind that we have reviewed your Draft Environmental Impact Statement (DEIS) for Invasive Plants Treatment on the Deschutes and Ochoco National Forests and Crooked River Grassland and have the following comments.

Overall, we think the Draft EIS is well written, thorough, and contained ample amounts of relevant information. The new treatment strategies in the proposed action alternative for addressing invasive plant infestations on National Forest lands is a major step forward in the



**Crook County Soil and Water Conservation District**  
498 S.E. Lynn Blvd. - Prineville, OR 97754

March 15, 2007

Leslie Weldon, Forest Supervisor, Deschutes NF  
Deschutes National Forest Headquarters  
1001 SW Emkay Drive  
Bend, OR 97702

Subject: Deschutes/Ochoco/Crooked River National Grassland Invasive Plant Draft EIS

Dear Ms. Weldon,

The Crook County Soil and Water Conservation District (SWCD) would like to take this opportunity to comment on the Deschutes and Ochoco National Forests and Crooked River National Grassland Invasive Plant Environmental Impact Statement.

The Crook County SWCD serves as the Weed Board for Crook County. The SWCD understands that noxious weeds are a major threat to our forests and grassland. The alternative proposed in the Draft EIS will provide important tools in the battle with noxious weeds. The Draft EIS identifies well thought out treatment strategies to deal with noxious weed sites currently identified and provides an opportunity to treat newly identified sites when control or eradication is relatively easy and cost-efficient. The Draft EIS also thoroughly addresses concerns regarding the use of herbicides.

The Crook County SWCD would like the following issues to receive more consideration in the final steps of this process:

- Cooperation and partnerships with agencies, organizations and private landowners have a significant impact on the spread of noxious weeds between land ownerships. The Deschutes and Ochoco National Forests and Crooked River National Grassland should encourage these partnerships when possible.
- Prevention is the most cost-effective method of dealing with noxious weeds. Every Forest Service employee should receive training to identify key noxious weed species and sites at risk to invasions.
- The EIS should weigh short-term and long-term effects of noxious weeds and the various treatment methods. The lack of effective treatment can produce serious long-term ecological effects that should be taken into account.
- Yellow Flag Iris (*Iris pseudocorus*) should be a priority species identified in this document. The Forest Service should work closely with the tri-county Yellow Flag Iris working group in implementing control efforts.
- The EIS should provide a mechanism to add new herbicides as they become available. New herbicides are already available for weeds such as Russian knapweed that require lower application rates than others on the market.