SECTION 3.8

NOXIOUS WEEDS

I. INTRODUCTION

The following issue was identified from public scoping responses:

- Effects of project implementation to noxious weed proliferation. For brevity, this issue is referred to as “Effects to noxious weeds” in the remainder of Chapter 3.

The Noxious Weeds analysis in this FEIS and all reference material is included in the Project Record (40 CFR 1502.21). This analysis contains the detailed data, methodologies, analyses, conclusions, maps, references, and technical documentation relied upon to reach effects analysis conclusions related to this project.

Noxious weed management, as authorized by the 2006 CNF Final EIS for Weed Management will continue regardless of this project. The goal for noxious weed management in the BCLMP area portion of the Ashland RD is to prevent noxious weeds from going to seed, maintain or reduce the number of acres infested, and to eradicate all new starts as soon as they are found.

The 2006 Custer National Forest Weed EIS analyzed the effects of herbicide use. It is fully understood that using herbicides to kill invasive species can kill non-targeted native species. Many herbicides are formulated to reduce effects to non-target species. The intention of the herbicide use is to prevent the far greater risk of the loss of species diversity because of invasive weed species. The Forest Service understands that herbicides can have an impact when infestations become large and productive because broadcast spraying techniques will likely affect more non-target species than when spot spraying. Invasive species such as spotted knapweed can reduce the biodiversity of a site making the site a monoculture. The Forest Service recognizes the risk in the potential lost in biodiversity by using herbicides but understand the greater risk of uncontrolled invasion could reduce biodiversity more than the use of herbicide. Herbicide use in the project area currently and projected into the near future is limited to spot spraying along road corridors and campgrounds.

A. REGULATORY FRAMEWORK FOR NOXIOUS WEEDS


The goal of noxious weed management is to implement an integrated pest management program aimed at controlling new starts, priority areas, and areas of minor infestations. Holding actions be implemented on areas of existing large infestations. Weed management needs an optimal balance of use restriction, public education, implementation of best management practices (BMPs), and effective treatment measures. The Integrated Pest Management Program (including descriptions of the education, prevention, control methods, mitigation measures, monitoring and
early detection) was described in the 2006 Custer National Forest Weed Management EIS. The 2006 CNF Weed EIS is incorporated into this analysis by reference. The 2006 Weed EIS recognized spread vectors by all types of human uses, natural processes, and wildlife. The Weed EIS also outlines required regulatory framework (2006 Weed EIS pp. 1-13,14 and 3-1,2) and prevention measures (2006 CNF Weed EIS, Appendix D) to help mitigate weed introduction and spread of weeds. Other previous decisions provide additional prevention measures such as certified weed seed free requirements and manual policy (2006 CNF Weed EIS, pp. 1-15, 16).

B. ASSUMPTIONS, METHODOLOGY AND SCIENTIFIC ACCURACY, AND INFORMATION USED FOR NOXIOUS WEEDS

**Noxious Weed Risk Assessment**

In order to determine the risk of noxious weeds and other undesirable plants spreading in the analysis area due to the activity being analyzed in this EIS, the following risk assessment was conducted. The Forest Service Northern Region Risk Assessment Rating Procedure for Undesirable Plants was used for this determination. This method meets the “Northern Region Risk Assessment Rating Procedure For Undesirable Plants” contained in the *Forest Service Manual Zero Code 2080 - Noxious Weed Management*, which is summarized as follows:

Factor 1: Likelihood of Undesirable Plant Species, Including Noxious Weeds Species, Spreading to BCLMP area:

- **NONE (0)**: Undesirable plants, including noxious weed species not located within or immediately adjacent to the BCLMP area. Project activity is not likely to result in the establishment of undesirable weed species on the BCLMP area.

- **LOW (1)**: Undesirable plant species present in areas adjacent to but not within the BCLMP area. Project activities can be implemented and prevent the spread of undesirable plants into the BCLMP area.

- **MODERATE (5)**: Undesirable plant species located immediately adjacent to or within the BCLMP area. Project activities are likely to result in some areas becoming infested with undesirable plant species even when preventative management actions are followed. Control measures are essential to prevent the spread of undesirable plants or noxious weeds within the BCLMP area.

- **HIGH (10)**: Heavy infestations of undesirable plants are located within or immediately adjacent to the BCLMP area. Project activities, even with preventative management actions, are likely to result in the establishment and spread of undesirable plants on disturbed sites throughout much of the BCLMP area.

Factor 2: Consequence of Undesirable Plant Establishment in BCLMP area

- **LOW (1)**: None. No cumulative effects expected.
• MODERATE (5): Possible adverse effects on site and possible expansion of infestation within BCLMP area. Cumulative effects on native plant community are likely, but limited.

• HIGH (10): Obvious adverse effects within the BCLMP area and probable expansion of undesirable plants, including noxious weed infestations to areas outside the BCLMP area. Adverse cumulative effects on native plant community are probable.

**Risk Rating Procedure**

Step 1. Identify level of likelihood and consequence of adverse effects and assign values according to the following: None = 0, Low = 1, Moderate = 5, High = 10

Step 2. Multiply level of likelihood times consequences.

Step 3. Use the value resulting in step 2 to determine Risk Rating and action as specified in Table 3.8.1.

**Table 3.8.1: USFS Region 1 Noxious Weed Risk Ratings.**

<table>
<thead>
<tr>
<th>Value</th>
<th>Risk Rating</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>NONE</td>
<td>Proceed as planned.</td>
</tr>
<tr>
<td>1-10</td>
<td>LOW</td>
<td>Proceed as planned. Initiate control treatments on undesirable plant populations that get established in the area.</td>
</tr>
<tr>
<td>25</td>
<td>MODERATE</td>
<td>Develop preventative management measures for the proposed project to reduce the risk of introduction or spread of undesirable plants into the area. Monitor the area for at least 3 consecutive years and provide for control of new infestations.</td>
</tr>
<tr>
<td>50-100</td>
<td>HIGH</td>
<td>Modify project design and implement preventative management measures for the proposed project to reduce the risk of introduction or spread of undesirable plants into the area. Monitor the area for at least 5 consecutive years and provide for control of new infestations.</td>
</tr>
</tbody>
</table>

**C. DESCRIPTION OF SPATIAL AND TEMPORAL BOUNDS USED FOR NOXIOUS WEEDS EFFECTS ANALYSIS**

The bounds of analysis would be that point in the affected environment where direct, indirect, and cumulative effects would no longer be detectable. Unless otherwise stated, the geographic area used to analyze the effects to the noxious weed environment is the BCLMP area (Figure 3.8.1).
D. **PAST, PRESENT, & REASONABLY FORESEEABLE FUTURE ACTIONS CONSIDERED FOR NOXIOUS WEEDS CUMULATIVE EFFECTS ANALYSIS**

For the purposes of this cumulative effects analysis, a list of projects considered are at the end of Chapter 3 of this document under the “Projects considered for Cumulative Effects” heading. Detailed consideration of these projects is provided in the Range Resources cumulative effects list in Chapter 2 (Table 2.18).

II. **AFFECTED ENVIRONMENT FOR NOXIOUS WEEDS**

Specific descriptions of existing forest and non-forest vegetation are provided in previous sections of this document and in the Forest Vegetation Specialist Report.

The noxious weed populations in the BCLMP area are few in numbers and small in size. The noxious weed populations are comprised of spotted knapweed, which are in proximity of road corridors and campgrounds. Figure 3.8.1 is a map of known noxious weed infestation locations in the BCLMP area. The seven known weed infestations are located on:

- Road 4427 (3 infestations)
- Road 4133 - Beaver Creek Rd (1 infestation)
- Road 44236 - Temporary Rd (1 infestation)
- East Fork of Otter Creek road (1 infestation)
- Holiday Campground (1 infestation)

The weed infestations on road 4133 is being monitored for new seedlings, whereas the infestations on road 4427, road 4426, Holiday Camp Ground and the East Fork of Otter Creek are being actively controlled with chemical treatments. The sites were last treated in 2010.

A common cause of knapweed dispersal is from vehicles. Vehicles and heavy equipment easily spread noxious weeds (seeds and reproductive plant parts). These vehicles can spread existing plants and seed as well as bring noxious weed seed into an area where ground disturbance assists in providing a good seed bed.

The Ashland RD Weed Control Program is actively monitoring and treating noxious weeds annually in the BCLMP area. Additional maps of treatment areas can be found at the Ashland RD.
Figure 3.8.1: Weed Infestation and BCLMP Area Map.
A. MITIGATIONS

The BMP’s outlined in Forest Service Manual 2080 and listed in Table 2.14 would be applied and would help to reduce the spread rate but would not prevent the spread altogether. Many agents will continue to transport weeds and weed seeds, regardless of the decision, but the fewer the agents, the less weed spread. However, removing all use would defeat the purpose of the public lands, is not public policy, and still would not totally eliminate the spread of weeds. Therefore, noxious weed management requires a balance of use restriction, public education, implementation of best management practices (BMPs), and effective treatment measures. Per existing policy, a noxious weed risk analysis will be done for each project, including this project (DEIS, p. 225). Also, appropriate BMP measures (FSM 2080, R1 Supplement 2000-2001-1) are included in this environmental analysis (DEIS, p. 200) will help reduce cumulative effects. Each project and public use area will be monitored for noxious weeds and the implementation and effectiveness of BMP mitigation measures, prioritized by the degree of risk. The Forest Service will continue prevention, public education and appropriate weed treatment measures. All action alternatives are consistent with Laws, Regulations, Policy, and Federal, Regional, State, and Custer Forest Plan.

Sensitive plant protection measures are outlined in Appendix C of the 2006 Weed FEIS. Implementation of these measures would minimize drift in these situations (i.e., no broadcast or aerial spraying within specific distances, sensitive species identification training of weed treatment crews, spot treat and/or wick treat weed species).

The Forest Service understands that weed spread can be accelerated through prescribed fire. The weed specialist was involved when planning prescribed burn units for this project. During planning, known weed infestations are identified, a weed risk assessment was conducted (DEIS pp. 225) and Best Management practices were incorporated into alternative design as protection measures (DEIS pp. 42-43). The Forest Service also incorporates Specific BMPs, to minimize the spread and the proliferation of weeds when using prescribed fire found in FSM 2080, R1 Supplement 2000-2001-1 and referenced in DEIS, pp. 42-43.

Chapter 2 describes how temporary roads would be obliterated. They would be monitored for weed infestations on a yearly basis. Any noxious weeds that are found would be treated as directed by the 2006 Custer NF Weed EIS, and in compliance with the Forest Plan.

III. EFFECTS OF ALTERNATIVES A, B AND C ON NOXIOUS WEEDS – ACTION ALTERNATIVES

A. DIRECT AND INDIRECT EFFECTS OF ACTION ALTERNATIVES FOR NOXIOUS WEEDS

With respect to the Noxious Weed, the affects of Alternative A, B, and C are similar and only varying by the amount of ground disturbance because the decrease in acreage treated. The probability of new weed infestation would decrease with Alternative B and C but the same mitigation measures and Best Management Practices would be in place, except for one under Alternative C. Temporary road 23 would be reduced in size in Alternative B and not utilized in
Alternative C. The mitigation measures set for this temporary road would not be utilized if the temporary road is not used. Please see Chapter Two for description of acreages.

**Undesirable Plant Risk Rating for the BCLMP**

Step 1. Identify level of likelihood and consequence of adverse effects and assign values according to the above direction.

- Likelihood rating is between low and moderate (2.5). Noxious weeds are present in very limited quantity within the BCLMP area, but are not likely to spread appreciatively with the current level of monitoring and treatment.

- The consequence of noxious weed establishment is between low and moderate (2.5). Cumulative effects on the native plant community are likely, but are very limited with continued monitoring and treatment.

Step 2. Multiply level of likelihood times consequences.

- Likelihood (2.5) X Consequences (2.5) = Value (6.25)

Step 3. Use the value resulting in step 2 to determine Risk Rating.

- A value of 6.25 gives a risk rating of low. The project may proceed as planned. Initiate control treatments on undesirable plant populations that get established in the area.

The known noxious weed populations in the BCLMP area are being monitored and treated. There is a possibility that the Action Alternatives could increase the spread of these infestations and/or create other infestations.

Timber activities increase the chances of a weed species to become established. There is the possibility of weed seeds and plant material to be brought to the area by equipment. There is also the chance of timber activity exposing soil, which could create an ideal location for weeds to establish. The STR1 and ST1 prescriptions would expose 20 to 30 percent bare mineral soil to initiate natural regeneration. These sites would be monitored yearly for noxious weed infestations, and any noxious weeds that are found would be treated in accordance with the 2006 Weed EIS and in compliance with the Forest Plan. Burning has the potential to remove the native species that are present on the landscape that compete with the weed species. Removal of vegetation increases areas where weeds could colonize. However, with the monitoring and treatment of the limited known infestations and implementation of required BMP’s (USDA 2006a), weed spread would be minimized. This does not preclude new infestations occurring in the BCLMP area due to many spread vector variables.

**B. Cumulative Effects of Action Alternatives to Noxious Weeds**

With the Action Alternatives and the cumulative effects from other activities such as travel management, weed species could expand with the Proposed Action. Noxious weeds in the
BCLMP area are found along road corridors and camping areas. Monitoring of weed populations is concentrated in these types of areas to reduce the effects of weeds.

Weeds would continue to be spread as a result of resource management and other human activities. BMP’s addressed in Forest Service Manual 2080 would be implemented and would help to slow the spread of weeds.

C. OTHER REQUIRED DISCLOSURES UNDER ACTION ALTERNATIVES TO NOXIOUS WEEDS

Short-term Uses vs. Long-term Productivity of Action Alternatives for Noxious Weeds

In the short-term (10 years) it is assumed that the Action Alternatives would increase the population of weed species because of the soil disturbance that will occur. If mitigation efforts are taken, it is assumed that the Action Alternatives would not affect the long-term productivity of the rangeland resource.

Irreversible/Irretrievable Commitments of Action Alternatives for Noxious Weeds

None identified

Unavoidable Adverse Effects of Action Alternatives on Noxious Weeds

There are no adverse effects foreseen for Action Alternatives.

Forest Plan Consistency of Action Alternatives for Noxious Weeds

The Action Alternatives would be consistent with the 1986 Custer Forest Plan goal, objectives, and standards applicable to Noxious Weeds.

D. CONCLUSIONS FOR ENVIRONMENTAL CONSEQUENCES OF ACTION ALTERNATIVES ON NOXIOUS WEEDS

The Action Alternatives could have a negative effect on the landscape by increasing the noxious weed population. By following the BMP’s and by concentrating on new infestations as directed in the Forest Plan (USDA 1986), noxious weeds impact should be reduced.
IV. EFFECTS OF ALTERNATIVE D ON NOXIOUS WEEDS - NO ACTION

A. DIRECT AND INDIRECT EFFECTS OF NO ACTION ALTERNATIVE FOR NOXIOUS WEEDS

There would be no direct effects of the No Action alternative. An indirect effect could be the effect of wildfire on the spread of noxious weeds. Assuming the BCLMP area could have a large, severe wildfire occur; it could pose a severe problem. Because wildfires are typically more severe than prescribed fire, more bare ground is exposed and could increase the chance for weed infestations. When comparing a prescribed fire with a wildfire, it is possible to say that the actives of burning and suppression could be managed better to decrease the chances of noxious weed spread in a prescribed scenario.

B. CUMULATIVE EFFECTS OF NO ACTION ALTERNATIVE FOR NOXIOUS WEEDS

Noxious weed management will continue regardless of this project. There would be no cumulative effects of the No Action alternative.

C. OTHER REQUIRED DISCLOSURES UNDER NO ACTION TO NOXIOUS WEEDS

*Short-term Uses vs. Long-term Productivity of No Action Alternative for Noxious Weeds*

None identified

*Irreversible/Irretrievable Commitments of No Action Alternative for Noxious Weeds*

None identified

*Unavoidable Adverse Effects of No Action Alternative on Noxious Weeds*

There are no adverse effects foreseen for No Action alternative.

*Forest Plan Consistency of No Action Alternative for Noxious Weeds.*

The No Action alternative would be consistent with the 1986 Custer Forest Plan goal, objectives, and standards applicable to Noxious Weeds.
D. CONCLUSIONS FOR ENVIRONMENTAL CONSEQUENCES OF NO ACTION ALTERNATIVE ON NOXIOUS WEEDS

No Action would occur on the ground from the project but noxious weed management would continue regardless of this project.