

SUMMARY

SELWAY BITTERROOT INVASIVE PLANT MANAGEMENT PROJECT

INTRODUCTION

The Nez Perce, Clearwater, Lolo, and Bitterroot National Forests are proposing activities to manage noxious weeds and other potentially harmful invasive non-native plant species within the Selway Bitterroot Wilderness and key areas adjacent to the Wilderness, including mainline trails and trailheads that lead into the Wilderness and other geographic areas and features identified on the project area map.

The total project area is approximately 1,400,000 acres in size. The Selway Bitterroot Wilderness comprises 1,350,000 acres of the total. There is an additional 31,000 acres of Inventoried Roadless Area included (480 acres plus 30,402 acres, respectively from the Lolo Creek IRA and the Selway Bitterroot IRA). The remaining acres are general forest lands. The project area map is shown on the following page.

Non-native invasive plants are a growing concern in the Selway Bitterroot Wilderness and surrounding areas. Without efforts to control these weeds, they will continue to expand into new areas and the number of new weed species will increase.

The proposed project area occurs only on National Forest lands. This document follows regulations as defined by the Council of Environmental Quality for implementing procedural provisions of the National Environmental Policy Act of 1969 (NEPA, as amended, 40 CFR1500-1508); US Forest Service Environmental Policy and Procedures Handbook (FSH 1909.15); and US Forest Service Handbook 3409 on Forest Pest Management.

PURPOSE OF THE PROPOSED ACTION

Weeds threaten wilderness values in the Selway Bitterroot Wilderness, namely, native plant communities and natural ecosystems. Invasive species are not only a threat to the flora and fauna associated with or dependant upon the native plant communities being displaced, in addition, physical regimes such as those associated with fire and hydrology may be altered. These natural functions and features of the landscape constitute a fundamental cornerstone of wilderness values.

The purpose of this project is to prevent the establishment of new invaders in the project area and reduce the impacts of established invasive plants on native plant community stability, sustainability and diversity in the Selway Bitterroot Wilderness.

Proposed Action

The national forests of the Selway Bitterroot Wilderness propose to apply integrated and adaptive approaches to reduce the effects of non-native invasive plant species on natural plant communities and ecosystems within the project area. Physical methods to control invasive plants include: chemical, biological, and mechanical treatments. All treatments and applications would be ground-based. Within the Selway Bitterroot Wilderness, the method of herbicide treatment would be through **selective, hand-operated, spray applications** using backpack and stock-mounted sprayers.

Prevention, education, enforcement, effectiveness monitoring, compliance monitoring, cooperation with landowners, user groups, and other interested parties, and regular inventories of invasive species in the area would be used to provide feedback to the adaptive management process.

The emphasis of the treatments would be to eradicate new invaders as they are discovered and to contain the spread of established non-native plants.

These actions would be designed to help maintain the natural conditions of the Wilderness, in accordance with the intent of the 1964 Wilderness Act.

Alternatives are evaluated in Chapters 2 and 3 of this document.

ISSUES CONSIDERED IN THIS ANALYSIS

Issues are disagreements or debates about potential environmental impacts of a proposed action. As such, issues influence the design and evaluation of alternatives to the proposed action. Issues for this project originated from public sensing and scoping efforts as well as interdisciplinary team discussions. Issues and concerns influenced the development of alternatives, environmental protection measures known as design criteria, and the analyses conducted as part of the assessment process.

The following Primary Issues have been key to the development of alternatives or the range of alternatives considered or they resulted in certain design criteria to protect specific resource values.

Primary Issues

- 1.) The effects of the proposal on maintaining Wilderness character
- 2.) The effects of the proposal on maintaining natural ecosystems
- 3.) The effects of the proposal on existing human uses
- 4.) The extent and priority of areas needing to be treated to manage invasive plants
- 5.) The effectiveness of treatment methods and strategies proposed to manage invasive plants.

SUMMARY OF ALTERNATIVES CONSIDERED IN DETAIL

Five alternatives, including the No Action Alternative, were developed from the Primary Issues, stated previously, and analyzed in detail. The following summary of the alternatives displays the key variables defining each alternative as well as the range of alternatives considered.

Alternative 1 – No Action

- Use all currently approved methods-
- Includes such methods as removal by hand and use of mechanical means on airstrips and administrative sites, with limited herbicide use at administrative sites. Also allows for continued use of previously approved bio-control agents outside of the Wilderness and the continued existence, but not supplementation, of previously introduced biological control agents within the Wilderness.

Acres of Manual/Cultural Treatment: Historically, fewer than 100 acres per year, estimated.

Acres of Herbicide Treatment: Approximately 70 acres per year, estimated. Fewer than 20 acres per year, within the Wilderness, have been treated with herbicides, historically, and herbicide use has been limited to maintaining the grounds at administrative sites and limited spot treatments along trails and campsites, approved under the Bitterroot National Forest Noxious Weed Treatment Project, March 2003, within the Wilderness. The vast majority of acres currently being treated with herbicides are associated with old road prisms located outside of the Wilderness.

Alternative 2 – Proposed Action

- Use all currently approved methods, plus herbicides and new releases of bio-control agents on all priority areas as needed, within all portions of the project area. Designated Treatment areas include all trails and associated camps, trailheads, Selway River camps, administrative sites, airstrips, private land buffers, dams sites, etc., that are situated in currently infested areas inside the Wilderness. Also includes roads inside the project area but outside the Wilderness.
- Provides opportunity for limited chemical treatment of new invaders and new colonies of established invasive plant species in susceptible Dispersed Treatment areas. (Allows for treating future weed expansion and colonization in currently weed free areas or areas currently in the early infestation phase, weed condition categories I and II on Alternative maps.)

Acres of Manual/Cultural Treatment: Same as Alternative 1.

Acres of Herbicide Treatment: Less than 1500/year.

Designated and Dispersed Treatment Areas

Acres of Bio-control Treatment: Up to 10,000 acres over project life.

Alternative 3 – Confined Treatment (No Herbicides in Riparian Areas, No New Bio-controls)

- Use all currently approved methods.
- Inside SBW, manage weeds without introducing new bio-controls. Limit use of herbicides to Designated Treatment areas including all trails and associated camps, trailheads, administrative sites, airstrips, private land buffers, etc., that are situated in currently infested areas.
- No herbicides would be used within 50 feet of live water. In addition, this alternative would not treat Selway River camps or dam sites with herbicides.
- Outside SBW, treatments same as Alternative 2.

Acres of Manual/Cultural Treatment: Same as Alternative 1.

Acres of Herbicide Treatment: 1806/year.

Designated Treatment Areas Only, Inside Wilderness

Designated and Dispersed Treatment Areas Outside Wilderness.

Alternative 4 – Bio-control Emphasis

- Use all currently approved methods.
- Inside SBW, manage weeds without using herbicides. Bio-control agents would be introduced and widely distributes in all currently infested areas to reduce spread rate of existing weed populations.
- Outside SBW. Treatments same as Alternative 2.
- Provide designed/constructed stock grooming stations at Race Track, Gateway, and Paradise trailheads.

Acres of Manual/Cultural Treatment: Same as Alternative 1.

Acres of Herbicide Treatment: 996/year.

Designated and Dispersed Treatment Areas Outside Wilderness.

Acres of Bio-control Treatment: Up to 50,000 acres over project life.

Alternative 5 – Preferred Alternative, Expanded Treatment (Dispersed and Bio-controls)

- Use all currently approved methods.
- Expand areas proposed for treatment beyond Alternative 2. Treatment is constrained by unique sub-watershed herbicide thresholds as explained in the Design Criteria and the Water section of Chapter 3.
- Designated treatment areas include all trails and associated camps, trailheads, Selway River camps, administrative sites, airstrips, private land buffers, dams sites, etc., that are situated in currently infested areas. Also includes roads inside the project area but outside the Wilderness.
- Provides opportunity for more aggressive chemical treatment of new Invaders and new colonies of established invasive plant species in susceptible Dispersed Treatment areas. (Allows for treating future weed expansion and colonization in currently weed free areas or areas currently in the early infestation phase, weed condition categories I and II on Alternative maps.)
- Provide designed/constructed stock grooming stations at Race Track, Gateway, and Paradise trailheads.

Acres of Manual/Cultural Treatment: Same as Alternative 1.

Acres of Herbicide Treatment: 4125/year.

Designated and Non-designated Treatment areas.

Acres of Bio-control Treatment: Up to 50,000 acres over project life.

All Action Alternatives Include:

- Updated public education plan/program.
- Internal policy requiring 48-hour enclosure in weed free facility, including feed, for all FS administrative stock.
- Use of education program to achieve voluntary compliance, by the public, with prevention measures including grooming and feeding weed-free feed for 48 hours prior to entering the wilderness.
- Use of adaptive Management, Integrated Weed Management, and Minimum Tool Strategies.

SUMMARY COMPARISON OF PROPOSED HERBICIDE AND BIO-CONTROL TREATMENTS

Acres Summary by Alternative

Note: Treatment acres are an estimate, not a constraint. Constraints are specified in each alternative and/or project design criteria.

Alt. No.	New Bio-Controls (Acres Over Project Life)	Designated and Dispersed Herbicide Treatment, Non-SBW (Acres/yr)	Designated Herbicide Treatment, SBW *** (Acres/yr)	Dispersed Herbicide Treatment, SBW (Acres/yr)	Total Herbicide Treatment (Acres/yr)	Herbicide Treatments w/in 100' of H2O (Acres/yr)
1 *	0	50	<20	0	<70	0
2**	10,000	996	1129	500	< 1500	358 +
3	0	945	861	0	1806	174
4	50,000	996	0	0	996	125
5	50,000	996	1129	2000	4125	558 +

*No new activities, beyond those currently authorized or permitted, are considered under the “No Action” Alternative.

**The Proposed Action is constrained to a total herbicide treatment of less than 1500 acres per year from all categories comprising the total acres identified in Alternative 2.

***Designated Herbicide Treatment Areas for Alternatives 2 & 5 include 70 acres of boating sites along the Selway River. Specific design criteria involving types of herbicides, their use and transport apply to these treatments.

+ The total includes Designated Treatment Areas and up to 10% of the Dispersed Treatments that may also occur w/in 100 feet of live water.

Alternative Summary Related to Major Issues

Primary Issues	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Maintaining Wilderness Character (Remoteness & Solitude)	Opportunities for remoteness and solitude would be maintained at current levels.	The potential for social encounters would slightly increase in Designated treatment areas and Dispersed treatment areas . Opportunities for remoteness and solitude would be maintained within acceptable levels.	The potential for social encounters would slightly increase in Designated treatment areas . Opportunities for remoteness and solitude would be maintained within acceptable levels.	The potential for social encounters would slightly increase in heavily infested portions of the SBW. Potential for visitor/weed-worker encounters is greater than Alt.1 but less than Alts 2, 3, & 5. Opportunities for remoteness and solitude would be maintained within acceptable levels	The potential for social encounters would slightly increase in Designated treatment areas and Dispersed treatment areas . Potential for visitor/weed-worker encounters is greatest for this alternative. Opportunities for remoteness and solitude would be maintained within acceptable levels.
Maintaining Natural Ecosystems/ Natural Integrity	Wilderness: Threat level to natural ecosystems remains high in all susceptible portions of the SBW.	Wilderness: Advanced Infestation Areas: Invasive plants are contained. Bio-controls introduced. Early Infestation Areas: Invasive plants are reduced or eliminated. Natural integrity is restored or maintained. Weed Free Areas: Invasive plants are eradicated. Natural integrity is protected.	Wilderness: Advanced Infestation Areas: Invasive plants are reduced in high use areas. Early Infestation Areas: Invasive plant populations would likely expand. Weed Free Areas: Invasive plant populations would likely become established and expand.	Wilderness: Bio-controls introduced. Rate of invasive plant expansion to all susceptible portions of the SBW would be reduced. Intensity of infestations would be reduced. Threat of natural integrity loss in all susceptible habitats throughout SBW would remain high.	Wilderness: Advanced Infestation Areas: Invasive plants are contained. Bio-controls introduced. Early Infestation Areas: Invasive plants are reduced or eliminated. Natural integrity is restored or maintained. Weed Free Areas: Invasive plants are eradicated. Natural integrity is protected.

Primary Issues	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
	<p>Non-Wilderness: Threat level to natural ecosystems remains high.</p>	<p>Non-Wilderness: Advanced Infestation Areas: Invasive plants are contained. Bio-controls introduced. Early Infestation Areas: Invasive plants are reduced or eliminated. Natural integrity is restored or maintained.</p>	<p>Non-Wilderness: Advanced Infestation Areas: Invasive plants are contained. Bio-controls introduced. Early Infestation Areas: Invasive plants are reduced or eliminated. Natural integrity is restored or maintained.</p>	<p>Non-Wilderness: Advanced Infestation Areas: Invasive plants are contained. Bio-controls introduced. Early Infestation Areas: Invasive plants are reduced or eliminated. Natural integrity is restored or maintained.</p>	<p>Non-Wilderness: Advanced Infestation Areas: Invasive plants are contained. Bio-controls introduced. Early Infestation Areas: Invasive plants are reduced or eliminated. Natural integrity is restored or maintained.</p>
<p>Effects on Human Uses</p>	<p>All current human uses would continue to be affected by presence and expansion of invasive plants throughout the project area. Current education & prevention would remain unchanged.</p>	<ol style="list-style-type: none"> 1. Visitors would notice increased emphasis on education & prevention. 2. Visitors would notice signs at trailheads identifying areas where herbicides are being used. 3. Visitors may be restricted from certain, localized, areas during spray operations. 4. Visitors would notice a reduction in weeds at high use areas. 	<ol style="list-style-type: none"> 1. Visitors would notice increased emphasis on education & prevention. 2. Visitors would notice signs at trailheads identifying areas where herbicides are being used. 3. Visitors may be restricted from certain, localized, areas during spray operations. 4. Visitors would notice a reduction in weeds at high use areas with lesser change noticeable at Selway River camps. 	<p>Wilderness:</p> <ol style="list-style-type: none"> 1. Visitors would notice increased emphasis on education & prevention. 2. Weeds would remain, possibly at slightly reduced levels in high use areas, expanding in remote areas. <p>Non -Wilderness:</p> <ol style="list-style-type: none"> 1. Visitors would notice increased emphasis on education & prevention. 2. Visitors would notice signs at trailheads identifying areas where herbicides are being used. 3. Visitors may be restricted from certain, localized, areas during spray operations. 4. Visitors may notice a slight reduction in weeds at high use areas. 	<ol style="list-style-type: none"> 1. Visitors would notice increased emphasis on education & prevention. 2. Visitors would notice signs at trailheads identifying areas where herbicides are being used. 3. Visitors may be restricted from certain, localized, areas during spray operations. 4. Visitors would notice a reduction in weeds at high use areas.

Primary Issues	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Extent and Priority of Treatment Areas	Wilderness:	Wilderness: Trail corridors and high use areas treated w/herbicides to reduce spread by contact. Bio-controls in advanced infestations. Remote areas w/ low weed densities treated w/ herbicides to remove or reduce populations.	Wilderness: Trail corridors and high use areas treated w/herbicides to reduce spread by contact. No bio-controls. No use of herbicides in remote areas other than Designated Areas. No herbicides w/in 50 feet of water.	Wilderness: Bio-controls in areas of Advanced Infestation. No new use of herbicide.	Wilderness: Trail corridors and high use areas treated w/herbicides to reduce spread by contact. Bio-controls in advanced infestations. Remote areas w/ low weed densities treated w/ herbicides to remove or reduce populations.
	Non-Wilderness:	Non-Wilderness: Trail corridors, roads, and high use areas treated w/herbicides to reduce spread by contact. Bio-controls in advanced infestations.	Non-Wilderness: Trail corridors, roads, and high use areas treated w/herbicides to reduce spread by contact. No herbicides w/in 50 feet of water.	Non-Wilderness: Trail corridors, roads, and high use areas treated w/herbicides to reduce spread by contact. Bio-controls in advanced infestations.	Non-Wilderness: Trail corridors, roads, and high use areas treated w/herbicides to reduce spread by contact. Bio-controls in advanced infestations.
Effectiveness of Treatment Methods and Strategies	Low	Moderate	Low – Moderate (Low effectiveness in Early Infestation and Weed Free areas of the SBW and riparian areas.)	Low – Moderate (Low effectiveness in Early Infestation and Weed Free areas of the SBW)	High