

Appendix M: Record of Decision; FC-RONRW Noxious Weed Treatment FEIS

United States
Department of
Agriculture

Forest Service
Intermountain and
Northern Regions

Record of Decision

for the

Frank Church River of No Return Wilderness Noxious Weed Treatment Final Environmental Impact Statement

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**Salmon and Challis, Payette, Bitterroot, and Nez Perce National Forests
Idaho, Custer, Lemhi, and Valley Counties, Idaho**

August 1999

Introduction

This Record of Decision explains our decision and rationale for selecting Alternative 2 of the Frank Church River of No Return (FC-RONR) Wilderness Noxious Weed Final Environmental Impact Statement (FEIS). The selected alternative would authorize treatment of close to 300 sites encompassing approximately 1,775 acres of invasive weeds (both State listed noxious weeds and species not included on the State list) within the FCRONR over the next five years beginning in 1999. The purpose of the action is to halt the establishment and expansion of invasive plants which managers feel pose the greatest risk to ecological resources within the FC-RONR. Treatments would incorporate Integrated Weed Management (IWM) practices, the "Minimum Tool" approach, and an adaptive treatment strategy. Specific actions would entail:

- a) controlling weed populations through a combination of manual, chemical, and biological methods,
- b) implementing restoration following control methods, and
- c) monitoring.

At least 15 species of weeds are considered for treatment. Species currently found in the FCRONR that are of greatest concern include rush skeletonweed, spotted knapweed, dyer's woad, sulphur cinquefoil, and Scotch thistle. Potential weed species not yet occurring within the Wilderness but found nearby include leafy spurge, yellow starthistle, common crupina, orange hawkweed, and purple loosestrife. If and when these or other weed species are detected within the Wilderness, they will be treated. Treatment of additional sites would follow the adaptive strategy described in Chapter 2 of the FEIS.

Weed infestations proposed for treatment represent less than .07 percent of the 2.4 million acre FCRONR Wilderness. The majority of the noxious weed populations occur along the major river habitats of Main Salmon, Middle Fork, and Upper Selway Rivers. Within the Salmon drainage, individual infestations range in size from 1/100th of an acre to 36 acres, with the average infestation representing about 1 1/2 acres.

Purpose and Need

As stated in the FEIS, invasive weeds within the FCRONR have established and are spreading at an alarming rate. According to many scientists, researchers, and managers invading weeds can alter ecosystem processes, including native plant composition and productivity, hydrology, nutrient cycling, and natural disturbance patterns such as frequency and intensity of wildfires. These changes in turn can impact wildlife, recreational opportunities, and scenic beauty. Currently only about 2,000 acres are known to be infested. If weed populations are allowed to expand, close to 400,000 acres of susceptible habitats within the Wilderness could be occupied. If this occurred the natural setting on 20 percent of the FC-RONR would be compromised. The situation is still manageable if timely, aggressive treatments are implemented.

Within the FC-RONR Wilderness the Forest Service is responsible for protecting and sustaining the natural setting of wilderness through promotion of healthy ecosystems, plant and animal community diversity, long-term natural resource sustainability, and future opportunities for public use. A review of recent weed surveys has shown us that weed populations in the Wilderness are a serious problem and have the potential to change the character of the FC-RONR at the watershed scale. We believe Alternative 2 is an aggressive program that will slow

the spread of large weed populations, eliminate new invaders, and will prevent or limit the spread of weeds in areas where there are few or no infestations.

Proposed Action

The Proposed Action (Alternative 2) was to treat close to 300 sites encompassing 1,775 acres of invasive weeds within the FC-RONR Wilderness beginning in 1999 and up until the FC-RONR comprehensive Wilderness EIS is implemented. Treatment practices would be prioritized to meet treatment objectives and would incorporate Integrated Weed Management and Minimum Tool principles. Specific actions would entail:

- a) controlling weed populations through a combination of manual, chemical, and biological methods,
- b) implementing restoration following control methods, and
- c) monitoring.

Treatment is only one part or element of the complete weed management picture. Other management attributes include coordination, information/education, inventory/early detection, and prevention. For treatments to be effective these attributes can not operate independently. Coordination, education, inventories, and prevention practices will proceed in conjunction with treatments. However, this analysis will not specifically address how, where, or when these non-treatment practices will occur. They will be fully outlined in the Frank Church River of No Return Environmental Impact Statement (FEIS).

Public Involvement And Issues

Public Involvement

The public has been involved with noxious weed planning through the Frank Church River of No Return (FCRONR) Wilderness Draft Environmental Impact Statement (DEIS) process since 1991. In March of 1993, a "Visions of the Future" symposium was held in Boise. It offered interested publics and user groups a chance to make their concerns and ideas about wilderness management known. During this symposium, management of exotic flora including weeds surfaced as a priority resource issue.

In May 1993, a consortium of interests and interest groups formed what was called the Citizens Work Group (CWG). The CWG refined the list of issues generated at the Boise symposium and then mailed them to people on the newsletter mailing list. The Forest Service initiated official scoping under NEPA following publication of the notice of intent to prepare an Environmental Impact Statement (EIS) in the *Federal Register* on December 7, 1994. The EIS was entitled the Frank Church River of No Return Wilderness Programmatic and Operational Management Plans.

Six public meetings were held in Idaho and Montana. Public comments were gathered in three stages: The first stage included recording oral comments, the second stage included written comments received from participants at the meetings, and the third stage included completed questionnaires from the *Frankly Speaking* mailings. Out of 1,300 comments compiled and sorted by issue, approximately 37 comments were received concerning control of noxious weeds in FC-RONR. Preliminary noxious weed issue statements, indicators, and standards were then developed, and in April 1995, presented to the public along with recreational and social issues

through another round of public meetings and accompanied mailings. Meetings were held in Idaho Falls, Challis, Missoula, Lewiston, Cascade, and Nampa.

The following noxious weed issue statement was then developed and subsequently included as part of the FCRONR Draft Environmental Impact Statement (DEIS): "How Can Noxious Weeds be Managed to Reduce Their Effects on the Wilderness Resource and What Treatment Elements are Acceptable?". The FCRONR DEIS was released in January 1998 and the public comment period ended on February 1, 1999. The public comments and results of the content analysis are contained in the project file at the Salmon and Challis National Forest Headquarters. See Chapter 5 for a more thorough discussion on public involvement process.

Issues

The over-riding themes from public comments were concerns that the impacts invasive weeds pose to the physical, biological, and ecological environment of the FCRONR Wilderness; and use of herbicides to control weeds and possible effects to people and the environment. Two-thirds of the comments included recommendation of and/or support for implementation of an aggressive noxious weed control program, including use of herbicides, although many commented herbicides should be used as a last resort. We also heard concerns from people about the effectiveness of a weed control program over time. We recognize that weed species such as goatweed, spotted knapweed, and sulphur cinquefoil will not be eliminated from the Wilderness. Our goal for these species is to reduce the size of large infestations and prevent or limit their spread to uninfested areas. Our goal for new invaders such as rush skeletonweed, dyers woad, and Scotch thistle; and potential invaders such as yellow starthistle and leafy spurge, is to detect and eliminate them before they establish and impact native ecosystems.

1. Effects of weeds and treatments on cultural resources - Discussed in Chapter 4.
2. Effects of herbicide application on fisheries including Threatened, Endangered, and Sensitive (TES) fish species - Discussed in Chapter 2 mitigation, Chapter 4, and in the Biological Assessments (BA) for listed fish.
3. Effects on human health from the application of herbicides - Discussed in Chapter 4.
4. Effects of weeds and treatments on recreation - Discussed in Chapter 4.
5. Effects on vegetative diversity including (TES) plant species - Discussed in Chapter 2 mitigation, Chapter 4, and in the Biological Assessments (BA) for listed plants.
6. Effects on wildlife including (TES) wildlife species - Discussed in Chapter 2 mitigation, Chapter 4, and in the Biological Assessments (BA) for listed wildlife.
7. Effects on Wilderness and Wild and Scenic River values - Discussed in Chapter 4.
8. Visual effects of weed expansion - Discussed in Chapter 4.
9. Support for treatment, including biological control and manual/mechanical methods, but excluding use of herbicides - Addressed through development of additional alternative and in Chapters 1, 3, and 4.
10. Effectiveness of various weed control methods - Displayed in Appendix G and in alternatives 2, 3, & 4.
11. Issues addressed by adopting mitigation measures or design standards common to all alternatives - This will occur under all alternatives.

Alternatives Considered

Five alternatives were considered in detail for this project (see FEIS Chapter 2):

Alternative 1: No Action - This alternative would not result in a change in current noxious weed treatment activities in FC-RONR. Treatments would consist of manual methods. Approximately 70 acres would be treated annually.

Alternative 2: Aggressive Integrated Weed Treatments Wilderness Wide - Alternative 2 is the Proposed Action as described in Chapters 1 and 2 of the FEIS and the selected alternative described above.

Alternative 3: Less Aggressive Integrated Weed Treatments Wilderness Wide - This alternative would use an integrated approach (physical, chemical, and biological methods) similar to alternative 2 to treat invasive weeds wilderness wide. However, the program would be less aggressive than alternative 2, requiring a longer period of time to achieve treatment objectives. Approximately 1,400 acres were identified for treatment.

Alternative 4: Integrated Weed Treatments Within River Canyons Only - Alternative 3 outlines an integrated approach but would only be implemented within the river canyons. Approximately 650 acres would be treated. No treatments would occur outside of the river corridors.

Alternative 5: Weed Treatments Excluding Use of Herbicides Wilderness Wide- This alternative proposes to treat the same weed infestations (1775 acres) outlined in alternative 2 but excluding use of herbicides.

Effects

Weed Effects Summary by Alternative

Resource	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Cultural	No effect on prehistoric values. Loss of native vegetation may lessen the historical setting of some historic sites.	Treatment practices would have no effect on prehistoric or historic values. Greatest recovery of landscape integrity surrounding historic sites.	Treatment practices would have no effect on prehistoric or historic values. Recovery of native landscapes would enhance historical integrity, although it would be less than in alternative #2.	Effects of treatment practices would be similar to alternative #2. There would be some recovery of historic values.	There would be the greatest amount of ground disturbance resulting from treatment practices. Several weed species found at historic sites would respond poorly to treatments, allowing noxious weeds to remain within historic places such as homesteads.
Fisheries	Possible increased sedimentation may result from expanding weed populations. If increased soil runoff did occur, water quality may be reduced possibly affecting fish. The likelihood of this occurring is unknown. Since herbicides would not be used there would be no impact associated with them.	The potential impact to fish or fish habitat from herbicide runoff following application is extremely minor. If a herbicide spill did occur, particularly in a smaller stream, local impacts to fisheries could occur. However, the risk of a spill is small and would be lessened though mitigation measures outlined in Chapter 2.	Potential impacts would be less than alternative #2 but potentially greater than for alternative #4.	Potential impacts could only occur within the river corridors. The effects of herbicide runoff and risk of spill is less than alternatives 2 and 3	Since herbicides would not be used there would be no impact associated with them.
Human Health	There would be no effects.	Risks to human health and safety would be greatest under this alternative. However, even under a worst case situation, short and long term risks would be extremely slight. Workers applying 2,4-D who failed to use protective equipment would be at the greatest risk, although this risk would still be very small.	Risks to human health would be less than alternative #2, but greater than alternative #4.	Risks would be greater than alternative #1, but less than for alternatives #2 and #3.	There would be no effects.

Weed Effects Summary by Alternative (continued)

Resource	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Recreation	The negative effects noxious weeds would have on use of recreation sites and the wilderness experience would be greatest under this alternative. Effects of weed treatment practices, particularly herbicide impacts on the recreation experience would be least under this alternative.	Reductions of noxious weed populations would be greatest under this alternative. Subsequently, so would enhancement of recreation sites and the recreation experience. Recreationists could encounter treatment crews and witness evidence of chemical and physical treatment such as wilted plants and weed piles.	Increased recreation opportunities associated with reduced weed populations would be less than alternative #2, but greater than alternative #4. The likelihood recreation conflicts with treatment crews and/or witnessing evidence of treatments would be less than alternative #2 and #5 but greater than #4.	Recreation opportunities resulting from reduced weed populations would increase within the river corridors. Potential encounters between recreations and weed treatment crews or their treatments would be greater than alternative #1, but less than the other action alternatives.	Weeds which can be effectively treated by physical methods would be reduced, enhancing recreational opportunities at those sites. Encounters between recreationists and treatment crews would be greatest under this alternative. Evidence of weed treatments (i.e. stacks of weeds or grubbed soil) would be very apparent. There would be no evidence of chemical use
Vegetative Diversity	As weed populations expand into susceptible native plant communities, adverse effects on community biodiversity and stability including some TES species could occur. Possible impacts of treatment methods, particularly herbicides on native plants would be non-existent.	Noxious weed expansion would be halted and existing infestations would be reduced. Uninfested native plant communities would remain intact and infested communities would be reclaimed. Impacts on native vegetation including TES plants from treatment methods, most notably herbicides could occur. However, impacts would be of short duration and minimized by mitigation measures. Ecosystem protection and enhancement would be greatest under this alternative.	Native plant communities and TES plant habitats would be protected, although to somewhat lesser degree than under alternative #2. However, protection would be greater than alternative #4. Treatment effects on native plants, including TES species, would be similar to alternative #3.	Noxious weeds would continue to expand into native communities outside the river corridors. Within the corridors effects on weed populations and corresponding native plant communities, including TES plant habitats, would be similar to alternatives #2. Potential effects of herbicides on non-target plant species, including TES species, would be nonexistent outside the river corridors and similar to alternative #2 within the corridors.	Weed infestations which can be effectively treated by physical methods (knapweed occurring on sandy soils) would be reduced, protecting native plant communities and TES habitat at risk to invasion by these species. Weed species which do not respond to physical treatments (rush skeletonweed, sulphur cinquefoil etc) would continue to expand and displace native plant populations including some TES species and their habitats. Under this alternative weed control would be more effective than alternative #1 but less effective than the other alternatives within the river canyons. Outside the canyons weed control would be more effective than alternatives #1 and #4 but less effective than alternatives #2 and #3.

Weed Effects Summary by Alternative (continued)

Resource	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Wildlife	<p>Weed expansion into native plant communities would occur to the greatest extent under this alternative. As vegetative diversity and structure declined, so would habitat effectiveness for many wildlife species, including TES species.</p> <p>Loss of wildlife habitat would be greatest under this alternative.</p> <p>The potential risks of herbicide effects on wildlife would be zero.</p>	<p>Existing plant communities would remain intact and infested sites would be reclaimed. Subsequently, this alternative provides the greatest protection to wildlife habitat, including TES.</p> <p>Potential risks of herbicides affecting wildlife species health is greatest, as the greatest amount of herbicides would be applied here. However, this risk would be very small.</p>	<p>Wildlife habitat would be protected, but to a lesser degree than under alternative #2. Protection of habitat would be greater than under alternative #4.</p> <p>Risks to wildlife associated with herbicide spraying could be similar to alternative #2. *Benefits to TES species would be less than Alt.2.</p>	<p>Outside the river canyons, noxious weeds would continue to expand into wildlife habitat.</p> <p>Within the canyons impacts on wildlife habitat would be similar to alternative #2.</p> <p>Overall protection of wildlife habitat would be greater than alternatives #1&#5 but less than under alternatives #2 and #3.</p> <p>Potential herbicide impacts to wildlife would be very unlikely.</p>	<p>Weed infestations which can be effectively treated by physical/mechanical methods would be reduced, protecting susceptible wildlife habitat.</p> <p>Weed populations which do not respond to physical treatments (the majority of weed acreage) would continue to expand and displace native plant populations which provide important wildlife habitat.</p> <p>Wildlife habitats within the river canyons would be better protected from weed invasion than under alternative #1 but less protected than under the other action alternatives. Outside the canyons habitat protection would be greater than alternatives #1 and #4 but less effective than alternatives #2 and #3.</p>
Wilderness Values	<p>Continued noxious weed expansion as allowed under this alternative would have the greatest adverse impact to wilderness integrity. The intent of the 1964 Wilderness Act and the Central Idaho Wilderness Act (CIWA) would be violated.</p>	<p>Halting the spread of and reducing existing exotic plant populations would best protect wilderness values as defined in the Wilderness and CIWA. Treatment of noxious weeds, particularly with herbicides, may reduce the wilderness experience for some users.</p>	<p>Wilderness values would be greatly protected, but to a smaller degree than under alternative #2. Effects on the wilderness experience as influenced by treatment methods would be similar to alternative #2.</p>	<p>Expanding weed populations would continue to deteriorate the wilderness character, although to a lesser degree than under the no action alternative. The wilderness users experience as affected by treatment would be minimal.</p>	<p>Weed infestations which can be effectively treated by physical methods would be reduced, protecting the wilderness character within those susceptible native plant communities. Weeds which do not respond to physical treatments would continue to expand and displace native plant populations altering the physical wilderness setting. Under this alternative wilderness settings within the river canyon would be better protected from weed invasion than under alternative #1 but less protected than under the other alternatives. Outside the canyons the wilderness ecosystem would be better protected than under alternatives #1 and #4 but less protected than under alternatives #2 and #3.</p>

Weed Effects Summary by Alternative (continued)

Resource	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Visuals	Loss of native vegetation would have a negative impact on the visual quality to some users and would have no affect on others.	The predominance of natural appearing landscapes would enhance the visual quality to some user groups. Visual effects of treatment may adversely affect the experience of other.	Impacts would be similar to alternative #2	Loss of visual quality due to noxious weed expansion would be less than alternative #1 but greater than alternatives #2 and #3. Visual impacts associated with treatment would be extremely small.	Natural appearing landscapes would be retained within habitats where weed infestations can be effectively treated by physical methods. Infestations which do not respond to physical treatments would continue to expand and affect the natural visual appearance. Under this alternative the visual setting within the river canyon would be better protected than under alternative #1 but less protected than under the other alternatives. Outside the canyons the natural appearance would be better protected than under alternatives #1 and #4 but less protected than under alternatives #2 and #3.

The Decision

Alternative 2 is the selected alternative. Under this alternative, close to 300 sites encompassing 1,775 acres of invasive weeds within the FC-RONR Wilderness would be treated beginning in 1999 and up until the FC-RONR comprehensive Wilderness EIS is implemented. Treatment practices would be prioritized to meet treatment objectives and would incorporate Integrated Weed Management and Minimum Tool principles. Specific actions would entail:

- a) controlling weed populations through a combination of manual, chemical, and biological methods,
- b) implementing restoration following control methods, and
- c) monitoring.

The purpose of this proposal is to treat weed species (both state listed noxious weeds and species not included on the state list) which managers feel pose the greatest risk to ecological resources within the FC-RONR. Treatment is only one part or element of the complete weed management picture. Other management attributes include coordination, information/education, inventory/early detection, and prevention. For treatments to be effective these attributes can not operate independently. Coordination, education, inventories, and prevention practices will proceed in conjunction with treatments. However, this analysis will not specifically address how, where, or when these non treatment practices will occur. They will be fully outlined in the Frank Church River of No Return Environmental Impact Statement (FEIS).

Minimum Tool

Noxious weed management will incorporate the concept of using the "minimum tool." This means that when planning necessary actions, managers would utilize the minimum necessary methods to accomplish the management objectives. Parameters considered when selecting minimum tool include species biology, infestation size, proximity to water and recreation sites, and extent of susceptible habitats adjacent to infestations. Methods would include manual, biological, or chemical control. For example, if all of these methods were equally effective in controlling a particular species or infestation, the least impactful method would be employed. Hand pulling or grubbing is effective for some species but not for others, such as deeply rooted species. Effective biological control agents are not available for many exotic species and bio-controls are not effective on small isolated infestations. In many situations herbicide use may be the only effective control, and thus the minimum tool. Determining treatment methods by infestation is shown in Appendix F of the EIS.

Weed Treatment Objectives

Weed treatment objectives include *containment, control, and eradication*. Under containment, weed infestations are not allowed to increase in size; the spread of the weed beyond the existing infestation perimeter is prevented. The control objective reduces the infestation through time; some level of infestation may be tolerated. Under eradication, total elimination of the weed is attempted. It is recognized that under the elimination objective, weeds will likely re-establish from seed and/or reinvasion on the site. Subsequently there will need to be periodic visitation and follow-up treatments on each treatment area.

Treatment Priorities

Treatments need to be focused where they have the greatest effect on preventing or minimizing weed impacts on wilderness resources. Weed species to be managed include State listed noxious weeds and non-State listed species. The delineation of plants with respect to treatment priorities is determined by (1) a weed species ability to invade and displace native plant communities, (2) the potential rate of expansion, (3) the physical nature of the weed (a tall and thorny species verses a small and unobtrusive species), and (4) the extent and proximity of susceptible native plant communities. As financial and other resources become available for weed management, higher priority items should be addressed prior to addressing lower priority items. The following list gives the general priority for weed treatments under all alternatives in this analysis. Treatment priorities are:

- (1) eradicate new populations of aggressive weed species.*
- (2) control established aggressive weed species.
- (3) containment of established aggressive species.
- (4) monitoring.
- (5) restoration.
- (6) eradicate new populations of less aggressive species such as Canada thistle.
- (7) control less aggressive species.
- (8) contain less aggressive species.

**Aggressive weeds are defined as species which rapidly expand into native habitats and/or within a relatively short period of time can displace native vegetation. Species include rush skeletonweed, spotted knapweed, yellow starthistle. New populations include potential invaders (species not yet found in the FC-RONR but occur nearby with high potential to spread into the wilderness), new invaders (species recently found in the FC-RONR with limited distribution and density to make eradication feasible) and new starts from established weed populations.*

Restoration and Cultural Practices

Since invasive weeds are typically opportunistic pioneers of open sites, any practice that favors the retention or introduction of desirable plants that can dominate or out compete weeds can serve as a control on noxious weeds. Restoration practices will be evaluated, and if necessary, implemented on infestations following manual or herbicide treatments. These practices would purposefully enhance the growth of native vegetation following treatment s. Examples are seeding, planting, fertilizing, or other cultural practices which favor later successional stages. The type, extent, timing, and duration of restoration practices would vary by infestation site. The Forest Service will work with researchers and interested partners in evaluating and prescribing which restoration practices are most effective.

Monitoring

Monitoring is the collection of information to determine the effectiveness of management actions in meeting the prescribed objectives. Monitoring will focus upon (1) infestation number and acreage, (2) density and rate of spread of invasive exotic plant species and the effect these plants have on the natural resources of the Wilderness, (3) the effect of herbicides and manual treatments on noxious weeds and desirable vegetation and (4) effectiveness of implementing treatments as designed. Monitoring will help determine if practices are accomplishing the

objective s. Elements of monitoring will include type (baseline, implementation, effectiveness, and validation), parameters, methodology, frequency/duration, variance limits, corrective measures, data storage, costs, and personnel needed. Data gathered through monitoring will determine if management strategies outlined in this decision are retained or adjusted. If adjustments are necessary, they will be implemented as quickly as possible. Monitoring information will be disseminated to the public as effectively as possible utilizing such methods as mailings and the internet.

The Forest Service will work with researchers and interested partners in developing and implementing monitoring protocols.

Adaptive Strategy

The proposed action includes an adaptive strategy for future treatment of new weed invasions and expansion of existing infestations. As additional infestations are discovered, each would be evaluated to determine if it fits within the scope of the EIS relative to the issues analyzed and then prioritized for treatment. Treatment of additional sites would follow the steps described within the Adaptive Strategy section of Chapter 2 of the EIS. Anticipating additional infestations would be discovered, Chapter 4 of the EIS analyzes herbicide effects on human health, fish, and wildlife for acreages greater than presently known within the Wilderness. Determining treatment methods for each site would be similar to how existing infestations (weed species, infestation size, and proximity to susceptible habitats) are evaluated. All mitigation measures described in Chapter 2 of the EIS would apply to treatments occurring on new infestations.

Features Common to the Decision

Coordination:

This entails working with local, state, and federal government agencies charged with managing noxious weeds, interested publics and user groups, private landowners within and adjacent to the FCRONR, universities and private industries involved with controlling noxious weeds. Close coordination is essential to effectively implement noxious weed management. A collaborative weed management area approach will be attempted to implement treatment strategies within the FCRONR.

Information/Education:

Programs that develop public understanding of the resource impacts of invasive weeds, tools used to manage the weeds, and the role humans play in the dispersal and establishment of invasive weeds. Education also includes the training of agency personnel in weed identification, management techniques, monitoring protocols, and other skills needed for the management of noxious and other invasive weeds.

Prevention:

Prevention measures are management practices that reduce the potential for the introduction, establishment, and/or spread of weeds. Prevention is the first priority in the management of noxious weeds. In the long term, it is more cost effective to prevent weeds from establishing than to begin treatment after establishment. Preventive measures would include but not be limited to actions such things as requiring certified weed free hay and requesting that grooming of horses be done prior to entering the wilderness to ensure that the animals are free of weed seeds.

Inventory/Early Detection:

An inventory is the collection, documentation, and storage of information on the extent and location of invasive weeds within the wilderness and to categorize changes in vegetation over time. Inventory provides necessary information for developing management objectives and prioritizing treatment actions. Early detection is the process of locating invasive weeds in the early stages of establishment and is a critical element of IWM. When detected early, infestations can be eradicated with less effort and minimum impacts to the environment.

Summary of Weed Treatment Actions

- Practices would be implemented wilderness wide.
- Eradicate** all new starts (≤ 5 acres) of aggressive weeds within 3 years.
- Reduce 5-25 acre infestations of aggressive weeds by 100 percent within 5 years.
- Reduce 26-50 acre infestations of aggressive weeds by 50 percent within 5 years.
- Contain, if technologically feasible, all aggressive weed infestations greater than 50 acres through mechanical, chemical, or biological methods.
- Monitoring. Evaluate effects of various treatments on weed populations, nontarget resources, and determine the trends of noxious weed populations such as expansion rates and habitat susceptibility.
- Following treatments, implement restoration practices that reduce or eliminate subsequent reinvasion of weeds.
- Eradicate new starts of less aggressive weeds within 3 years.
- Reduce >5 acre infestations of less aggressive weeds by 50 percent within 6 years.
- When non chemical methods are not effective because of weed biology, infestation size, soil compaction, species risk of spread, time of year etc., utilize appropriate herbicides.
- All herbicides would be applied with ground based sprayers.
- Biological control agents would be considered for weed species where other methods are known to be ineffective or inappropriate. Species considered for biological control include, but are not limited to, goatweed and larger infestations of mullein, sulphur cinquefoil, and spotted knapweed.

** *Eradication here implies reducing a particular infestation to the point where the entire weed population can be treated. Weeds in many instances will likely re-establish from seed and/or reinvasion on the site. Subsequently there will need to be periodic visitation and follow-up treatments on each treatment area.*

Acres Scheduled by Treatment Method

Acres	Manual/Cultural Treatment	Chemical Treatment	Biological Treatment
1775	190 Acres	800	785

Infestations Scheduled by Manual & Chemical Treatment Method

Total Sites	Manual Treatment Only	Chemical Treatment Only	Combination of Manual & Chemical
293	131 Sites	78 Sites	84 Sites

Specific treatments are shown in Appendices C and D of the EIS.

Mitigation Practices

- Ground disturbances resulting from weed treatment activities would be revegetated with an appropriate, certified noxious weed-free native seed mix and fertilized as necessary.
Provisions would be specified as needed for the prevention and control of weeds when new and existing special use permits (e.g. outfitter/guides) are issued/reissued.
- Weeds which are wind dispersed will be bagged and disposed of if they are hand-pulling during the flowering to seed set stage.
- Adjacent landowners would be notified prior to treatment of noxious weeds on national forest lands.
- All weed treatment would be coordinated with forest botanists. Site-specific treatment guidelines, approved by the forest botanist, would be developed for infestations within or adjacent to known sensitive plant populations. All treatment sites would be evaluated for sensitive plant habitat suitability; suitable habitat would be surveyed as necessary prior to treatment.
- Treatment areas would be signed prior to and following herbicide applications within areas of special concern. In addition, information on where and when spraying and other treatments would occur would be available to the public at the local ranger district office.
- Application of any herbicides to treat noxious weeds would be performed by or directly supervised by a State licensed applicator.
- Procedures for mixing, loading, and disposal of herbicides are outlined in Appendices H and I of the FEIS would be followed.

Herbicide Use - General

- EPA would be consulted annually for new information about herbicides proposed for use. Recommendations will be followed to ensure the most safe and effective use.
- If future development of herbicides results in products which promise to be more effective, their use will be evaluated for impacts to resources analyzed in the FEIS.
- All herbicide use will comply with applicable laws and guidelines.

Rationale for the Decision

I have made my decision based on :

1. A review of the FEIS, appendices, project file, and supporting information such as the Forest Plan,
2. How well the various alternatives meet the project's Purpose and Need, and
3. Public comments we have received.

As mentioned in the purpose and need section, invasive weeds have become established within the Frank Church River of No Return (FCRONR) Wilderness and have the potential to displace native plants at the watershed scale. Once weed populations exceed 50 acres, management actions become ineffective and/or inappropriate in wilderness. Almost all of the known weed infestations in the FC-RONR are less than 50 acres and are still manageable. However, the window of opportunity to effectively manage these infestations is rapidly closing. Selecting any of the alternatives involves risks to people and or the environment. Alternative #2 presents the greatest risk in terms of the amount of herbicide proposed. Alternative #1 presents the greatest risk of weed expansion. Alternative #5 is the most expensive and presents the greatest risk of encounters between Forest Service Crews and the public.

We believe the risk of chemical application is substantially lessened through mitigation practices outlined in Chapter 2, following herbicide guidelines outlined in Appendix H, and because of the relatively small amounts of herbicide application proposed. The analysis in Chapter 4 of the EIS demonstrates that even under a "worst case" situation such as a spill or rapid runoff of herbicides, effects to the environment or people would be minimal to non-existent. Alternative #2 best addresses the weed challenge by applying effective, safe, and appropriate integrated treatments based on the minimal tool concept throughout the entire Wilderness. We believe that our strategies in Alternative #2 for control, monitoring and treating new infestations will allow us to make significant progress toward preventing the spread of existing weeds and new invaders, and will help us reduce the threat of weed spread in our ecosystem now and in the future.

We did not select Alternative #1 because it would allow weeds to expand unchecked throughout the FC-RONR. Natural conditions would deteriorate and biodiversity of the Wilderness would decline.

We did not select Alternative #3 because, although it would provide some level of control, it does not provide an aggressive enough approach to controlling weeds and would result in limited success. A significant investment in resource would occur, yet weed populations would not be suppressed.

We did not select Alternative #4 because infestation outside the river canyons would have been allowed to expand. Even though aggressive action along the rivers would result in some benefits, hundreds of thousands of acres within the wilderness would become infested, altering the wilderness ecological setting.

Under Alternative #5, manual and biological treatments would be the only methods used. Manual methods are only effective on tap rooted plants less than an acre and which occur on coarse textured soils. Small spotted knapweed populations found on beaches near the major rivers can be effectively treated by pulling or digging. Weed infestations occurring on finer textured soils, greater than an acre,

and/or are species with rhizomes, rootstocks, or stolons are not or poorly controlled with manual methods. Moreover, if weed infestations were to be treated exclusively by manual methods as outlined in Alternative #5, personnel necessary to accomplish this would be much greater than the other alternatives. Implementation costs are roughly twice that needed for Alternative #2 and potential encounters between wilderness visitors and treatment personnel would greatly increase. Under Alternative #5 costs would be highest, encounters with members of the public greatest, yet weed populations of rush skeletonweed, sulphur cinquefoil, and, dyers woad would continue to expand. We did not select Alternative #5 because the proposed treatment methods are ineffective in controlling several of the aggressive weed species.

Findings Required By Other Laws And Regulations

Numerous laws, regulations and agency directives require that this decision be consistent with their provisions. We have determined that our decision is consistent with all laws, regulations and agency policy relevant to this project. The following discussion is not an all inclusive listing, but is intended to provide information on the areas raised as issues or comments by the public or other agencies.

National Environmental Policy Act (NEPA)

The purposes of NEPA are to "encourage productive and enjoyable harmony between man and his environment to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man." We believe Alternative 2 meets the purposes of the Act because of the reasons already stated and as further stated below.

Wilderness Direction

The Wilderness Act (P.L. 88-577) mandates that the Wilderness be managed so its community of life is untrammled by man, its primeval character is retained, and its natural conditions are preserved. Forest Service policy direction is to maintain wilderness in such a manner that ecosystems are unaffected by human manipulation and influences so that plants and animals develop and respond to natural forces (FSM 2320.2). It is also policy to control and eliminate exotic vegetation (FSH 24.21). In keeping with this mandate, we believe Alternative #2 best controls expanding weed populations which can affect the natural setting and other wilderness values of the FC-RONR.

Federal Noxious Weed Act of 1974 as amended.

Section 15 of the Federal Noxious Weed Act directs federal agencies to adequately fund an undesirable plants management program; establish integrated management to control or contain undesirable plant species; and, cooperate with State agencies in the management of undesirable plants. We believe Alternative #2 fulfills this Act.

National Forest Noxious Weed Management Policy (FSM 2080-2083)

We believe Alternative #2 is consistent with the National Forest Noxious Weed Management Policy which requires district rangers to prevent the introduction and establishment, and provide for the containment and suppression, of noxious weeds; and to cooperate with state agencies.

Forest Service National Weed Management Strategy

The Forest Service has developed a national strategy for managing noxious weeds on national forest system lands. The strategy is intended to implement national policy and provide guidance to local administrative units. We feel the aggressive, integrated approach outlined in Alternative #2 fulfills the Agency's strategy.

Executive Order

In February 1999, the President issued an Executive Order establishing a national Invasive Species Council. The EO also directs federal agencies to prevent the introduction of invasive species; detect and respond rapidly to control populations of invasive species; provide for restoration of native species and habitat conditions; promote public education on invasive species; and not to carry out actions that are likely to cause or promote the introduction or spread of invasive species unless the benefits clearly outweigh the harm and measures to minimize the harm are taken in conjunction with the proposed actions. We believe Alternative #2 complies with this Order particularly to detect and respond rapidly to control populations.

Endangered Species Act (ESA)

The Salmon and Challis National Forests wildlife biologist and fisheries biologist, and Nez Perce Forest botanist have initiated consultation with the US Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) to evaluate Alternative #2 in regard to threatened and endangered animal and plant species. Determinations for listed fish, wildlife, and plant species are Not Likely to Adversely Affect. Findings are summarized in the FEIS (Chapter 4) and in the biological assessments and biological evaluations (FEIS, Appendix). Projects will not be implemented until concurrence letters are received from USFS and NMFS. Based on these findings, I believe Alternative #2 is consistent with the ESA.

Clean Water Act

Based on the measures outlined in the FEIS to protect soil and water resources (Chapter 2 mitigation and Appendix H), waters would not be degraded and beneficial uses would be protected.

National Forest Management Act (NFMA)

The National Forest Management Act and accompanying regulations require that several other specific findings be documented at the project level.

Forest Plan Consistency - Management activities are to be consistent with the Forest Plan [16 USC 1604 (i)]. The Forest Plan guides management activities [36 CFR 219.1(b)]. Consistency with the Forest Plan is discussed in Chapter IV of the FEIS as appropriate by resource.

Resource Protection - the following 12 statements address resource protection requirements of NFMA:

1. Alternative 2 conserves soil and water resources and does not allow significant or permanent impairment of the productivity of the land (FEIS, Chapter 4).
2. Within the scope of the project and consistent with the other resource values involved, activities will minimize risks from serious or long lasting hazards (FEIS, Chapter 2 Mitigation).

3. The purpose of this project is to prevent or reduce serious, long lasting hazards and damage from pest organisms, utilizing principles of integrated pest management (FEIS, Chapter 1 Purpose and Need).
4. Alternative 2 will protect bodies of water (FEIS, Chapters 2 and 4).
5. Alternative 2 will provide for and maintain a diversity of plant and animal communities by reducing displacement of native plant species (FEIS, Chapter 4).
6. Alternative 2 will maintain sufficient habitat for viable populations of existing native vertebrate species (FEIS, Chapter 4, Appendix, and project file).
7. The FEIS assesses potential physical, biological, aesthetic, cultural, engineering, and economic impacts of Alternative 2 and it is consistent with multiple uses planned for the area.
8. Alternative 2 prevents the destruction or adverse modification of critical habitat for threatened and endangered species (FEIS, Chapter 4, Appendix, and project file).
9. There are no right-of-way corridors capable and likely to be needed to accommodate the project.
10. There is no road construction associated with this project.
11. No temporary roads will be built.
12. Applicable Federal, State, and local air quality standards will be met.

Riparian Areas, Soil and Water - All riparian areas, soil and water will be protected as described in the FEIS (Chapters 2 and 4 and Appendix).

Diversity - The purpose of this project is to preserve and enhance the diversity of plant and animal communities by reducing and limiting the spread of invasive weeds (FEIS, Chapter 1). Alternative #2 is consistent with this objective.

Identification of the Environmentally Preferable Alternative

We believe that Alternative #2 is the environmentally preferable alternative. It provides the most comprehensive treatment to limit the spread of noxious weeds and prevent new invaders which currently are threatening FC-RONR Wilderness ecosystems. We believe that potential adverse effects from the use of herbicides on the environment will be negligible in comparison to the long term adverse environmental and ecological impacts invasive weeds would have if not aggressively treated. We feel confident that the amounts of herbicide prescribed for use at each site and the safety measures we will be taking will keep negative effects at undetectable levels.

Implementation Date

Treatments would commence during the fall of 1999 and continue for the next five years.

Appeal Opportunities and Procedures

This decision is subject to Forest Service administrative appeal pursuant to 36 CFR 215.7. A written Notice of Appeal must be submitted within 45 days after the date the notice of this decision is published in the newspapers of record. Send the Notice of Appeal and Appeal to:

**Appeals Deciding Officer,
USDA Forest Service, Intermountain Region,
324 25th Street, Ogden UT 84401,
Telephone (801) 625-5605;
Fax (801) 625-5277.**

Appeals must meet the content requirements of 36 CFR 215.14. As a minimum, in compliance with section 215.14, your Notice of Appeal MUST include:

- A statement that your document is an appeal filed according to 36 CFR part 215.
- Your name, address and, if possible, telephone number;
- The decision being appealed by title and subject,
- Date of the decision, and
- Name and title of the Responsible Official who signed it.

Identify the specific change(s) in the decision you seek or portion of the decision to which you object; and state how the Responsible Official's decision fails to consider comments previously provided, either before or during the 45-day comment period. Your appeal will be dismissed if the preceding information is not included in the Notice of Appeal.

If no appeal is received, implementation of this decision may occur on, but not before, five business days from the close of the 45-day appeal filing period. If an appeal is received, implementation may not occur for 15 days following the date of appeal disposition.

For more information, contact:

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Salmon and Challis National Forest
Forest Headquarters Office
(208)756-5131

Bruce

Project Team Leader
Slate Creek Ranger District
Box 70 HC 01
White Bird, ID 83554
(208)839-2211

Anderson

Please call us or visit the Forest Service offices listed above, if you have any question about this decision.

Approval

George Matejko

**GEORGE MATEJKO, Lead Forest Supervisor
Salmon and Challis National Forests**

8/13/99

Date

David Alexander

**DAVID ALEXANDER, Forest Supervisor
Payette National Forest**

8/11/99

Date

Rodd Richardson

**RODD RICHARDSON, Forest Supervisor
Bitterroot National Forest**

8/10/99

Date

Bruce Bernhardt

**BRUCE BERNHARDT, Forest Supervisor
Nez Perce National Forest**

8/06/99

Date

