

## Chapter 2

### Introduction

This chapter summarizes the public involvement and issue development process from the 1999 EIS, and from this SEIS, used to produce and evaluate the alternatives. This chapter also describes the Alternatives analyzed in this SEIS, including the proposed action and proposed mitigation measures.

### Scoping and Issues

Results of public and agency scoping efforts from the 1999 EIS indicate people have concerns about the impacts of invasive weeds on the physical, biological, and ecological environment of the FC-RONRW and the potential effects of herbicides on people and the environment (1999 Record of Decision, Appendix M).

In November 2003, the public was invited to comment on the proposal to continue Integrated Weed Management initiated in 1999, with proposed modifications. A letter inviting comments about this proposed action was sent to those individuals and groups providing comments to the 1999 EIS, individuals and groups within the general mailing list from the Bitterroot, Payette, Nez Perce and Salmon-Challis National Forests interested in weed management, and individuals who had provided comments in the past regarding implementation of the FC-RONRW weed management program. The comments received during this current scoping indicate both support and concern over various aspects of this proposal. The majority of comments focused on elements of weed management that were analyzed in 1999. The comments received did not lead to the development of any new issues. The issues developed following review of public comments in 1999 are discussed in the 1999 Record of Decision (Appendix M) and are listed below.

#### Specific key issues:

1. Effects of weeds and treatments on cultural resources.
2. Effects of herbicide application on fisheries including Threatened, Endangered, and Sensitive fish species.
3. Effects on human health from the application of herbicides.
4. Effects of weeds and treatments on recreation.
5. Effects on vegetative diversity including (TES) plant species.
6. Effects on wildlife including (TES) wildlife species.
7. Effects on Wilderness and Wild and Scenic River values.
8. Visual effects of weed expansion.
9. Support for treatment, including biological control and manual/mechanical methods, but concerns over the use of herbicides.
10. Effectiveness of various weed control methods.
11. Issues addressed by adopting mitigation measures or design criteria

## **Alternative 1 (No Action)**

Existing noxious and invasive weed treatments will continue to be implemented under Alternative 1. The selected alternative from the 1999 EIS forms the basis for this Alternative 1. Details of the 1999 selected alternative can be found in the 1999 Record of Decision (Appendix M). The primary components of Alternative 1 are;

- **Incorporate Integrated Weed Management and Wilderness Minimum Tool Concepts**
- **Initiate weed treatment practices, including a combination of hand pulling, the use of herbicides and the use of biological control methods**
- **Authorize treatment of all known weed sites within the wilderness**
- **Incorporate Adaptive Management to analyze and treat newly discovered infestations**
- **Monitor to determine treatment effectiveness and effects on other vegetation**
- **Recognize the importance of coordination, education, inventory and prevention practices, but defer the specific details of non-treatment practices to a future analysis**

Specific details of this alternative include;

### **1) Treatment Priorities**

Treatments are focused where they have the greatest effect on preventing or minimizing weed impacts to wilderness resources. Weed species to be managed include State listed noxious weeds and non State listed invasive species. The delineation of plants with respect to treatment priorities is determined by (1) a weed species' ability to invade and displace native plants 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 would be addressed prior to addressing lower priority items. (1999 EIS, page 21)

The following list gives the general priority for weed treatments;

#### **Eradicate New Populations of Aggressive Weeds**

1. Control Aggressive Weed Populations (Reduce populations through time)
2. Contain Aggressive Weeds (Hold populations to present size)
3. Monitoring & Follow up
4. Restoration
5. Eliminate New Starts of Less Aggressive Weeds
6. Control Less Aggressive Noxious Weeds (Reduce populations through time)
7. Contain Less Aggressive Noxious Weeds (Hold populations to present size)

### **2) Treatment Methods**

Noxious weed management will incorporate the concept of using the "minimum tool". Managers 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 include manual, biological, or chemical control. If all of these methods are equally effective in controlling a particular species or infestation, the least impactful method will be employed (1999 EIS, page 23). The matrix “treatments incorporating the minimum tool approach” describe treatment methods by weed species and priority category (Appendix C).

Effective biological control agents are not available for many exotic species and bio-controls are not effective on small isolated infestations. 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 (1999 EIS, pages 17-18).

Biological control agents (insect or pathogen) are closely scrutinized for host specificity prior to approval for release. The USDA Animal and Plant Health Inspection Service (APHIS) screens new biocontrol agents for impacts to agricultural and rare plants. APHIS also prepares environmental assessments on the possible impacts of releasing those agents (1999 EIS, page 17). Only biological control agents approved by APHIS for use against specific target weeds will be released in the FC-RONRW.

### 3) Herbicide Application

Herbicide application is primarily limited to spot spraying with backpack pumps. Spraying from truck or four-wheeler mounted tanks may be occasionally done within some areas along the Main Salmon River or at major trailheads. The following table (Table 2.1) shows the application rates for the herbicides discussed in the 1999 EIS (1999 EIS, pages 18-20).

**Table 2.1 Chemical Application Rates** (active ingredient)

CHEMICAL	gal/ac	lbs/gal	lbs/ac	fl oz/ac
•Picloram	0.13	2.00	0.25	
•Clopyralid	0.17	3.00	0.5	
•2,4-D	0.25	4.00	1.00	
•Glyphosate (Rodeo)	0.75	5.40	4.05	
•Banvel	0.25	4.00	1.00	
•Metsulfuron methyl				.5
•Scythe	8			
•WOW			430	

EPA will be consulted annually for new information about herbicides proposed for use. Recommendations will be followed to ensure the most safe and effective use (1999 Record of Decision, page 18).

The importance of calibrating herbicide applicators and their equipment is assumed, but not specifically discussed.

### 4) Non-treatment Practices

Noxious Weed Management within the FC-RONRW incorporates Integrated Weed Management (1999 Record of Decision, page 10). 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. These non-treatment practices proceed in conjunction with treatments. The specific details describing these non-treatment practices will be developed in a future analysis (1999 Record of Decision, page 10).

## **5) Monitoring**

Monitoring associated with Alternative 1 focuses upon (1) trends in weed infestation number, size and density (2) the effect of noxious/invasive weed infestations on native vegetation and other wilderness resources (3) the effect of treatments on target weeds and desirable vegetation and (4) effectiveness of treatments as implemented. Data gathered through monitoring will determine if management strategies 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 (1999 ROD, page 12).

## **6) Mitigation Practices**

Mitigation practices associated with this alternative are displayed in the 1999 ROD, page 14, and are listed below;

- 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.

## **Alternative 2 (Proposed Action)**

The Salmon-Challis, Bitterroot, Payette and Nez Perce National Forests propose to continue authorization of Integrated Weed Management (IWM) components described in the 1999 Record of Decision for Noxious Weed Treatment in the FC-RONR Wilderness. For the most part, the IWM program being proposed is very similar to the decision of 1999 presently being implemented, summarized in Chapter, 1 and described as Alternative 1. The goals and objectives for aggressive integrated noxious/invasive weed management throughout the wilderness continue to drive this Alternative. The Adaptive Management Strategy, Minimum Tool Guidelines and the associated Decision Matrix described in the 1999 EIS are incorporated into this alternative (Appendix C & D).

Specific details of this alternative include;

### **Clarify or modify specific standards, guidelines or mitigations associated with treatment practices**

The use of herbicides and associated herbicide additives, including surfactants and dye, are an important aspect of Integrated Weed Management as proposed in this alternative. The specific herbicide and additives to be used and the rate of application are dependent on specific site characteristics, species of targeted noxious/invasive weed, non-target vegetation, and land-use considerations. Environmental concerns make it critical to follow all label instructions, site directions and safety precautions when using any herbicide. The existing mitigation measures described in the 1999 EIS and implemented as a part of the existing weed treatment program have been expanded to provide additional guidelines and safeguards. These Mitigation Measures (Appendix E) will be implemented to insure protection of wilderness resources and safety to the public and Forest workers.

#### **1) Treatment Priorities**

Treatment objectives and priorities by weed species identified in the 1999 EIS will continue to guide decisions related to sites and species selected for treatment, and the method of treatment to be incorporated. District Rangers may modify treatment priorities and will consider any recommendations from the Steering Committee for the FC-RONRW Cooperative Weed Management Area when establishing treatment priorities. In addition, new noxious/invasive weed species, and their relative priority, may be evaluated by the local District Ranger and identified for treatment. Recommendations from the Steering Committee will be considered prior to treating new weed species.

#### **2) Treatment Methods**

The selected methods for treatment of noxious and invasive weeds will continue to incorporate the concept of "minimum tool". Managers will utilize the minimum necessary methods to accomplish management objectives. The matrix "Treatments Incorporating Minimum Tool Approach" prescribes treatment methods by weed species and priority category (Appendix C). This matrix will guide the selection of specific treatment methods.

Newly inventoried noxious/invasive weed sites and expansion of existing sites will be evaluated in accordance with the "Adaptive Management Strategy" described in the 1999 Record of Decision, page 12. Wilderness weed managers will strive for consistent application of "Adaptive

Management Strategy” and analysis of new sites by using a common procedure for assessing new sites. A methodology for consistent assessment of new weed sites is displayed in Appendix F. The type of treatment for new noxious/invasive weed sites will be determined utilizing the decision matrix “Treatments Incorporating Minimum Tool Approach” (Appendix C).

Biological control involves the introduction of an exotic weed’s natural predator insect or pathogen to an established weed infestation. Biocontrol is one weed treatment method employed in the FC-RONRW. The objective of biocontrol is generally to suppress host weed populations by reducing vigor and reproductive capacity, but not actually eradicating weeds from the site. Biocontrol can be effective on extensive weed populations and also in remote areas where detection of new sites may be difficult, if the biological control agent is mobile.

This alternative proposes to expand the role of biocontrol as a component of Integrated Weed Management. Biocontrol will be utilized strategically in combination with other control measures. Biocontrol is not necessarily exclusive of other management options, but rather one tool to be used when and where appropriate.

### **3) Herbicide Application Methods**

**Application Techniques** Herbicide application will continue to be limited to “ground based” methods. Aerial application has not been evaluated by this assessment and is not authorized in the FC-RONRW. “Ground based” treatment methods include spraying with backpack pumps, hand sprayers, pumps mounted on pack and saddle stock, and properly mounted pumps in jet boats on the Main Salmon River.

The use of a pump and other spray apparatus properly mounted within a jet boat is considered “ground based application”. Actual spraying associated with a jet boat mounted system will be conducted by an applicator on land. All required buffer zones will be maintained. A certified applicator will operate and monitor the pump during the spray operation. Spray equipment properly mounted in a containment compartment within the hull of the jet boat is considered safe and effective double containment for the use of herbicide. Appropriate safety practices and containment components are required for the use of jet boat mounted spray equipment (Appendix E). Mixing herbicides is allowed within the confines of a jet boat by a licensed applicator.

**Application Rate;** All pesticide label information and restrictions will be strictly adhered to for any herbicide and additive being applied. The rate of application of approved herbicides and associated herbicide additives, including surfactants and dye, may fully incorporate, but never exceed, label recommendations.

Forests will develop annual Pesticide Use Proposals to authorize the specific herbicides, application rates and project specific environmental precautions. Pesticide Use Proposals will be reviewed by the NOAA Fisheries Service and US Fish and Wildlife Service to ensure compliance with agreed upon environmental safeguards.

**Consultation with EPA;** The 1999 EIS states, “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”. Annual consultation with EPA is not a practical way in which to review the most current information regarding the safe and effective use of herbicides approved for use in the FC-RONRW. The 1996 Food Quality Protection Act

amended the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) by requiring the EPA to revise risk assessments on all ingredients registered through EPA, including herbicides, by 2006. Risk assessments are currently being revised for some of the herbicides approved for use within the FC-RONRW, while others will soon be revised (personal communiqué with Gary McRae, EPA and George Robinson, IDA). Rather than annual consultation with the EPA, FC-RONRW weed managers will contact the Idaho Dept of Agriculture to discuss the status of revised risk assessments and the details of completed assessments. In addition, IDA will be consulted regarding new information on the most effective treatment practices.

**Calibration;** The sequential assessment of the factors potentially influencing the rate of herbicide application is termed “calibration”. Calibration insures both equipment and personnel are synchronized to provide the desired amount of herbicide on a specified area of treated ground. Various factors can significantly influence the actual rate of herbicide application. These factors include, the amount of herbicide mixed with each gal of water, the volume of herbicide/water mix delivered in a specified time (i.e. gallons per minute), nozzle size, pump pressure, the speed and technique of the applicator, and the amount of gaps and over-laps resulting from inconsistent application. The 1999 EIS assumes calibration will be performed by herbicide applicators, however does not mention calibration specifically. The importance of calibration will be emphasized to herbicide applicators within the FC-RONRW as a part of this proposed action. Documented calibration will be required at the initiation of a herbicide application project, and periodically during herbicide application. A methodology to document calibration is shown in Appendix G.

#### **Authorize Use of Additional Herbicide (Plateau)**

**Plateau** (imazapic) is a herbicide proposed for use in the FC-RONRW to aid in future restoration projects. Plateau is particularly suited for restoration projects striving to reduce annual grass and to increase the density of native bunch grasses. Plateau acts on many species of broadleaf plants and grasses as a growth inhibitor. Many native forbs and grass species, including lupine, bluebunch wheatgrass and Idaho fescue, can be tolerant to Plateau at prescribed rate and may increase as a result of reduced competition. Certain target grass species and broadleaf weeds, including cheatgrass/downey brome, sandbur, thistle and toadflax are susceptible. Any future restoration projects, including the use of Plateau, will be analyzed for its potential site-specific environmental effects.

As technology advances, more effective and less toxic herbicides are being developed for specific uses. Additional herbicides may be considered for use within the FC-RONRW in the future. Only herbicides having a completed Human Health and Ecological Risk Assessment Final Report will be considered for use. Any proposed use of a new herbicide will be evaluated for its potential site-specific environmental effects and will be reviewed by the federal regulatory agencies (NOAA Fisheries Service & US Fish Wildlife Service) to insure no potential detrimental effects to threatened or endangered species.

#### **4) Non-Treatment Practices, Including Prevention**



Invasive weed treatment is only one 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 cannot operate independently. Prevention, coordination, education, and detection will proceed in conjunction with treatments.

**Prevention;** It is often more cost effective to prevent weeds from invading a site, than to treat weeds once they are established. Prevention is the first priority in the management of noxious/invasive weeds. A noxious/invasive weed prevention plan that incorporates various State laws, Forest Service regulations and policies, and general practices appropriate for the FC-RONRW has been developed (Appendix J). This Prevention Plan incorporates Forest Service Region 1 and Region 4 Management Direction for implementation of weed prevention measures (Appendix K). This Prevention Plan is intended to be a “work in progress” and will be revised periodically with pertinent information, recommendations and guidance. Many prevention measures discussed in this plan have been, and continue to be, implemented in the FC-RONRW. Continued implementation of this weed prevention strategy will reduce the establishment of new invasive weeds into the wilderness and slow the spread of existing infestations.

**Coordination;** Activities associated with noxious/invasive weed management in the FC-RONRW have been coordinated among the four National Forests managing the wilderness since about 1995. Management priorities, treatment methods, and consistent documentation have been discussed and commonly agreed to by wilderness weed managers. A sharing of information and resources on the ground has enabled the Forests to attain many of their short-term weed management objectives and make advancements in long-term management goals.

The four National Forests managing the FC-RONRW have jointly established a wilderness-wide Noxious Weed Coordinator position to assist with effective and consistent noxious/invasive weed management planning and project implementation.

The coordination of noxious/invasive weed information, ideas and activities is critical for an effective management program. Information exchange among Forest Service managers, with other agencies, and with wilderness users is important. To fully realize this coordination, a Cooperative Weed Management Area has been established for the FC-RONRW. Primary goals of this CWMA are to promote coordination among weed management participants, strengthen relationships and broaden partnerships. Steering Committee participants include representatives from each of four counties, private landowners from both the Main and Middle Forks of the Salmon River, commercial and private wilderness user groups, conservation organizations, Idaho Dept of Fish and Game and the four National Forests comprising the wilderness.

**Education;** The education of wilderness users, the general public, Forest Service managers and partners regarding the threat of noxious/invasive weed invasion is vital to accomplishment of weed management objectives. It is important to share ideas regarding practical steps people can take to help prevent establishment and spread of invasive plants in the wilderness. Treatment alone cannot keep pace with the unchecked spread of noxious/invasive weeds. We must solicit the aid of wilderness users to help slow weed expansion through wide spread use of prevention practices.

Several education and outreach programs have been initiated to promote weed awareness in the FC-RONRW. These include noxious/invasive weed presentations to local schools, signing of weed prevention regulations at trailheads, weed prevention and orientation information given to river users at launch sites, the development of a portable noxious/invasive weed education display for use at county fairs etc. Local Forest Service managers have written formal articles and given numerous presentations pertaining to the threat noxious/invasive weeds pose to wilderness resources and values, and prevention practices to reduce weed spread within the FC-RONRW.

Volunteers including the Student Conservation Association have been utilized to assist in the development of a noxious/invasive weed education strategy. The Forest Service is currently developing a specific Invasive Plant Education and Awareness Plan for FC-RONRW. The Steering Committee for the FC-RONRW Cooperative Weed Management Area will assist in the completion of this education strategy.

**Inventory and Detection;** Surveys and inventories for new noxious/invasive weed infestations is an important aspect of the weed management program. Survey work completed since 1999 has documented substantially more noxious/invasive weed infested acres than had been reported prior to 1999. As with most Forest Service activities, the amount of inventories conducted in a given year is dependant largely upon funding. By working with existing volunteer groups and partners, such as the Student Conservation Association, and by seeking new partners and funding opportunities through the Cooperative Weed Management Area, inventory and invasive weed detection will remain a high priority.

The collection of noxious/invasive weed inventory information will be conducted in a consistent manner across the FC-RONRW. Noxious/invasive weed managers from each of the National Forests managing the FC-RONRW have agreed upon a common inventory methodology. This common inventory methodology will allow for consistent description of noxious/invasive weed infestations, and will comply with national data standards. The collection of specific weed inventory data and the process for data storage will adapt to new procedures as inventory information requirements and uses change over time.

## **5) Monitoring**

Monitoring associated with the proposed action will continue to focus upon (1) trends in infestation number, size and density (2) the effect of noxious/invasive weed infestations on native vegetation and other wilderness resources (3) the effect of treatments on target weeds and desirable vegetation and (4) effectiveness of treatments as implemented (1999 ROD, page 11). These monitoring components will continue to be the basis of the “Monitoring Strategy”(Appendix H) associated with the proposed action. This Monitoring Strategy describes methodologies and protocols to be used in conducting monitoring activities associated with noxious/invasive weed management. New or modified protocols will be based on interactions with researchers, the CWMA Steering Committee, and/or interested partners.

The location of 15 permanent monitoring sites established since 1999 are shown in Appendix A. These monitoring sites have been established to evaluate short-term and long-term effects of herbicide treatments to target weeds and non-target vegetation. Summarized monitoring results from these sites are included in Appendix I.

## **6) Mitigation Measures**

As a component of the Proposed action (Alternative 2), the existing mitigation measures described in the 1999 EIS have been expanded to provide additional guidelines and safeguards. These additional Mitigation Measures (Appendix E) will be implemented while planning and conducting invasive weed treatment activities. Additional mitigation measures include; pre-treatment activities to plan for safe and effective projects, application, transport, and mixing of herbicides in a safe and effective manner, and potential spill abatement measures.

## **Features Common to Both Alternatives**

### **A) Integrated Weed Management**

Both alternatives will incorporate Integrated Weed Management (IWM), which is defined as, "An interdisciplinary pest management approach for selecting methods for preventing, containing, and controlling noxious weeds in coordination with other resource management activities to achieve optimum management goals and objectives." IWM, based on an understanding of weed ecology, balances the economic and environmental cost of management with the environmental and social effects of the weeds. IWM uses a wide variety of management methods, including; education, preventive measures, cultural practices, mechanical methods, herbicides, biological control agents, and general vegetation management techniques.

### **B) Adaptive Management**

Both of the alternatives include an adaptive strategy for future treatment of new weed invasions and expansion of existing infestations. As additional infestations are discovered, each will be evaluated to determine if it fits within the scope of the 1999 EIS and/or this Supplemental EIS relative to the issues analyzed and then prioritized for treatment. Anticipating additional infestations will be discovered, Chapter 4 of the 1999 EIS and Chapter 4 of this Supplemental EIS analyzes herbicide effects on human health, fish, and wildlife for acreages greater than presently known within the Wilderness. Determining treatment methods for each new site will be similar to how existing infestations (weed species, infestation size, proximity to susceptible habitats, etc.) were evaluated. All mitigation measures described in Appendix E will apply to treatments occurring on new infestations.

### **C) Minimum Tool**

Noxious weed management in the FC-RONRW will incorporate the concept of using the "minimum tool". This means that when planning necessary actions, managers will 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 will 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. In many situations herbicide use may be the only effective control, and thus the minimum tool.

**D) Inventory and Detection**

Weed inventory will be conducted as a part of both alternatives. Inventory will include the collection, documentation, and storage of information on the extent and location of invasive weeds within the wilderness and categorize changes in vegetation over time. Inventory will provide necessary information for developing management objectives and prioritizing treatment actions. Early detection will strive to locate invasive weeds in the early stages of establishment. When detected early, infestations will be eradicated with less effort and minimum impacts to the environment.

**E) Restoration Practices**

Restoration practices will be evaluated, and if necessary, implemented on infestations following manual or herbicide treatments. These practices will purposefully enhance the growth of native vegetation following treatments. The type, extent, timing, and duration of restoration practices will vary by infestation site. The Forest Service will work with researchers and interested partners in evaluating and prescribing effective restoration practices.

## Comparison of Alternatives

The following table (Table 2.1) compares several key components of the alternatives.

**Table 2.1 Comparison of Alternatives (Summary)**

	<b>Alternative 1</b>	<b>Alternative 2</b>
<b>Determining Treatment Priority</b>	<ul style="list-style-type: none"> <li>* General priorities for weed treatments are;</li> <li>1. Eradicate new populations of aggressive weed species</li> <li>2. Control Aggressive Weed Populations</li> <li>3. Contain Aggressive Weeds</li> <li>4. Monitoring &amp; Follow up</li> <li>5. Restoration</li> <li>6. Eliminate New Starts of Less Aggressive Weeds</li> <li>7. Control Less Aggressive Noxious Weeds</li> <li>8. Contain Less Aggressive Noxious Weeds</li> </ul>	<ul style="list-style-type: none"> <li>* Existing general priorities will continue to guide decisions.</li> <li>* Clarifies that Rangers may modify priorities and will consider recommendations of the CWMA Steering Committee</li> </ul>
<b>Selection of Treatment Method</b>	<ul style="list-style-type: none"> <li>* Determination of weed treatment methods is made according to the matrix “Treatments Incorporating Minimum Tool Approach” Appendix C</li> <li>* Biological control agents will be considered for weed species where other methods are known to be ineffective or inappropriate.</li> </ul>	<ul style="list-style-type: none"> <li>* Clarifies that the matrix “Treatments Incorporating Minimum Tool Approach” will guide selection of treatment methods</li> <li>* Utilize biocontrol strategically in combination with other control measures. Biocontrol is not necessarily exclusive of other management options, but rather one tool to be used when and where appropriate.</li> </ul>
<b>Herbicide Application Method</b>	<ul style="list-style-type: none"> <li>* Herbicides will be applied with ground based sprayers. Application is limited primarily to spot spraying with backback pumps. Spraying from truck or four-wheeler mounted tanks may be occasionally done.</li> <li>* Specific rates of herbicide application are identified. Some rates are below label recommendations</li> <li>* Calibration of applicators and their equipment is assumed.</li> </ul>	<ul style="list-style-type: none"> <li>* Clarifies application using pumps and apparatus properly mounted in jet boat, with spray nozzles operated by applicators on land is considered ground based.</li> <li>* Herbicide application rates will incorporate but not exceed, label recommended rates.</li> <li>* Calibration of applicators and equipment will be conducted at the initiation of a herbicide application project, and periodically during herbicide application</li> </ul>
<b>Use of Additional Herbicides</b>	<p>Specific herbicides approved for use in the FC-RONRW include, Picloram, Clopyralid, 2,4-D, Glyphosate, Banvel, Metsulfuron, Scythe, WOW</p>	<ul style="list-style-type: none"> <li>* Herbicides previously approved for use in the FC-RONRW will continue to be considered for use.</li> <li>* Plateau herbicide may be used to aid in future restoration projects, by treating and eliminating annual exotic grass species. Any future restoration projects, including the use of Plateau, will be analyzed for its potential site-specific environmental effects.</li> </ul>

**Table 2.1 Comparison of Alternatives (Summary) Cont.**

	<b>Alternative 1</b>	<b>Alternative 2</b>
<b>Incorporation of Non-Treatment Methods</b>	<p>* Non-treatment practices proceed in conjunction with treatments. The specific details describing these non-treatment practices will be developed in a future analysis</p>	<p>* A noxious/invasive weed prevention plan that incorporates various State laws, Forest Service regulations and policies, and general practices appropriate for the FC-RONRW has been developed (Appendix J)</p> <p>* Weed management coordination is taking place and will continue, including the establishment of a Cooperative Weed Management Area.</p> <p>* Education of wilderness users regarding noxious and invasive weeds is occurring and will continue.</p> <p>* Inventory and detection of noxious/invasive weeds is occurring in a coordinated manner and will continue</p>