

**Appendix F - Analysis Matrix
for New Weed Sites**

Draft Supplemental Environmental Impact Statement
Frank Church-River of No Return Wilderness Noxious Weed Treatments

Analysis of New or Expanded Noxious Weed Sites
FC-RONR Wilderness

Site ID: _____ Examiner: _____ Date: _____
(Attach Site Inventory Form) Weed Species: _____
Site Description: _____

1. Treatment Objectives by Weed Species (Refer to Table 2.2 1999 EIS)
 Eradicate, Control, Contain

2. Recommended Treatment by Species and Site (Refer to 1999 EIS Appendix E&F)
 Physical-Mechanical Only, Favor Physical-Mechanical
 Favor Herbicides, Aquatic Approved Herbicides Only
 Favor Biological Control Physical-Mechanical or Herbicides

3. Review Issues & note potential concerns (see back of form)

- Cultural Resources
- Fisheries
- Human Health
- Recreation
- Vegetative Diversity and Sensitive Plants
- Wildlife
- Wilderness and Wild and Scenic Rivers
- Visuals
- Effectiveness of Treatments

4. Examiner's Recommended Treatment: _____

5. Recommended treatment implemented at the time of this analysis? Y N

Remarks:

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Issues associated with treatment of existing, expanded, and new sites, and associated implementation practices and mitigation measures include the following:

1. Cultural Recourses;
 - Minimize surface soil disturbance.
2. Fisheries;
 - Apply appropriate riparian buffers as identified in the documented “Treatment Matrix”, 1999 EIS Appendix F.
 - **Read and follow label instructions.**
 - Follow approved measures for handling of herbicides, 1999 EIS Appendix H.
3. Human Health;
 - Applicators will be properly trained and licensed.
 - All Personal Protective Equipment required/suggested on the herbicide label and associated Job Hazard Analysis will be used as appropriate.
 - Chemical spill containment kits and first aid kits will be on site.
 - Read and follow label instructions.
 - Follow approved measures for handling of herbicides, 1999 EIS Appendix H.
 - Radio or other communications will be managed according to Job Hazard Analysis.
 - Adjacent private landowners will be notified prior to spraying.
 - Treatment areas will be signed prior to and following herbicide applications within areas of special concern as identified by the District Ranger.
 - A dye solution will be used to visually detect uniform coverage of spray area.
 - A calibration exercise will be conducted often enough to ensure proper amount of herbicide is being applied. Calibration should be conducted when changing to a different chemical or spray apparatus, changing nozzle size or setting, when the prescribed amount of chemical changes due to different site conditions or target species, when encountering different terrain or a change in speed of application, and by new applicators.
 - Information on planned timing and location of spraying and other treatments will be available to the public at local Ranger District offices.
4. Recreation;
 - Implement measures identified under the issue of “Human Health”.
 - Consider reducing the treatment activities during high recreation use periods of mid and late summer. This is a time period when weed phenology is not optimum for herbicide effectiveness.
 - Provide herbicide “awareness” information to wilderness users as opportunities arise.
5. Vegetation diversity and sensitive plants;
 - Implement “Treatment Matrix”, 1999 EIS Appendix F.
 - Read and follow label instructions.
 - Follow approved measures for handling of herbicides, 1999 EIS Appendix H.
 - Manual and mechanical methods will be favored over herbicide application when each is equal in meeting management objectives.
- Weed treatment will be coordinated with the/a Forest Botanist by providing information on previous years treatment and the current and/or planned treatment program.
- New treatment areas will be evaluated for potential sensitive plant habitat prior to treatment. Treatment sites falling within potential suitable habitat will be further evaluated by the/a Forest Botanist. Suitable habitat will be surveyed as deemed necessary by the/a Forest Botanist prior to treatment.
- Site specific treatment guidelines will be developed in conjunction with the/a Forest Botanist, for herbicide application within or adjacent to known sensitive plant populations
6. Wildlife;
 - Implement “Treatment Matrix”, 1999 EIS Appendix F.
 - Read and follow label instructions.
 - Follow approved measures for handling of herbicides, 1999 EIS Appendix H.
 - Manual and mechanical methods will be favored over herbicide application when each is equal in meeting management objectives.
7. Wilderness and Wild and Scenic River;
 - Implement Minimum Tool Guidelines as described in 1999 EIS Appendix E.
 - Implement Treatment Matrix, 1999 EIS Appendix F.
 - Read and follow label instructions.
 - Follow approved measures for handling of herbicides, 1999 EIS Appendix H.
 - Only native seed mix will be considered for restoration work following ground disturbance.
8. Visuals;
 - Minimize non-target vegetation mortality by use of appropriate selective herbicide.
 - Implement Treatment Matrix, 1999 EIS Appendix F.
 - Read and follow label instructions.
 - Follow approved measures for handling of herbicides, 1999 EIS Appendix H.
9. Effectiveness of various treatment measures;
 - Determine Integrated Weed Management treatment practice according to “Treatment Matrix”, 1999 EIS Appendix F, and Minimum Tool Guidelines, 1999 EIS Appendix E.
 - Read and follow herbicide label instructions.
 - Follow approved measures for handling of herbicides, 1999 EIS Appendix H.
 - Assess phenological stage of target vegetation for optimum timing of treatment.
 - Use appropriate herbicide considering density and phenology of target and non-target vegetation, herbicide toxicity, soil attributes, distance from water, season of application, etc.
 - Apply appropriate rate of applicable herbicide by referring to Table 2.1, Chapter 2 of 1999 EIS and the herbicide label instructions.

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Recommended Treatments Incorporating the Minimum Tool Approach

WEED SPECIES	MANAGEMENT OBJECTIVE	RIVER CANYONS BELOW HIGH WATER	RIVER CANYONS ABOVE HIGH WATER	DISTANCE FROM STREAMS & LAKES	OCCUPIED CAMPSITES	PLANT \ GROWTH STAGE	SOIL TEXTURE	SOIL MOISTURE
<i>Potential Invaders</i>	Eradicate-FH Control-FH Contain-FH or FB	Sandy Soils:PMO. Gravel Bars:EO, AAO	River Terraces:FH. Toe Slopes:FH	Adjacent to:EO, AAO. Within 50':EO, AAO >50':FH	Within-PMO Near (200')-FPM Distant (200')-FH	Rossette-FH; Preflowering-FH Flowering, Seed Set, & Seed dispersal-EO	Course-EO Medium-EO Fine-FH	Wet-EO Moist-FH Dry-FH
<i>New Invaders</i>								
Dyers Woad	Eradicate-FH Control-FH Contain-FH or FB	Sandy Soils:PMO. Gravel Bars:EO, AAO	River Terraces:FH. Toe Slopes:FH	Adjacent to:EO, AAO. Within 50':EO, AAO >50':FH	Within-PMO Near (200')-FPM Distant (200')-FH	Rossette-FH; Preflowering-FH Flowering- Seed dispersal-EO	Course-EO Medium-EO Fine-FH	Wet-EO Moist-FH Dry-FH
Dalmation Toadflax	Eradicate-FH Control-FH Contain-FH or FB	Sandy Soils:PMO. Gravel Bars:FPM.	River Terraces:FH. Toe Slopes:FH	Adjacent to:FPM. Within 50':EO, AAO >50':FH	Within-PMO Near (200')-FPM Distant (200')-FH	Rossette-FH; Preflowering-FH Flowering- Seed dispersal-EO	Course-EO Medium-EO Fine-FH	Wet-EO Moist-FH Dry-FH
Perennial Peavine	Eradicate-FH Control-EO Contain-FH or FB	Sandy Soils:PMO. Gravel Bars:FPM.	River Terraces:EO. Toe Slopes:FH	Adjacent to:FPM. Within 50':FPM, >50':EO.	Within-PMO Near (200')-FPM Distant (200')-EO	Any stage of growth;EO	Course-FPM Medium-EO Fine-EO	Wet-EO Moist-EO Dry-EO
<i>Established Invaders</i>								
Spotted Knapweed	Eradicate-FH Control-FH Contain-FH or FB	Sandy Soils: PMO. Gravel Bars:EO, AAO	River Terraces:EO. Toe Slopes:FH	Adjacent to:FPM. <50':EO, AAO. >50':FH	Within-PMO Near (200')-FPM Distant (200')-FH	Rossette to Preflowering- FH.Flower- Seed dispersal-EO	Course-EO Medium-EO Fine-FH	Wet-EO Moist-FH Dry-FH
Rush Skeletonweed	Eradicate-FH Control-FH Contain-FH or FB	Sandy Soils:PMO. Gravel Bars:FH, AAO	River Terraces:FH. Toe Slopes:FH	Adjacent to:EO,AAO. <50':EO, AAO. >50':FH	Within-PMO Near (200')-EO Distant (200')-FH	Rossette-FH; Preflowering-FH Flowering- Seed dispersal- FH/EO	Course-EO Medium-FH Fine-FH	Wet-FH Moist-FH Dry-FH
Sulpher Cinquefoil	Eradicate-FH Control-FH or FB. Contain-FH or FB.	Sandy Soils:PMO. Gravel Bars:EO, AAO	River Terraces:FH. Toe Slopes:FH	Adjacent to:FPM. <50':EO, AAO. >50':FH	Within-PMO Near (200')-FPM Distant (200')-FH	Rossette to Preflowering- FH.Flower- Seed dispersal-EO	Course-EO Medium-EO Fine-FH	Wet-EO Moist-FH Dry-FH
Scotch Thistle	Eradicate-FH Control-FH Contain-FH or FB	Sandy Soils:PMO. Gravel Bars:EO, AAO	River Terraces:EO. Toe Slopes:FH	Adjacent to:FPM. <50':EO, AAO. >50':FH	Within-PMO Near (200')-FPM Distant (200')-FH	Rossette to Preflowering- FH.Flower- Seed dispersal-EO	Course-EO Medium-EO Fine-FH	Wet-EO Moist-FH Dry-FH
Mullien	Eradicate-FH Control-EO Contain-EO or FB	Sandy Soils: PMO; Gravel Bars: FPM.	River Terraces:EO. Toe Slopes:FH	Adjacent to:FPM. <50':FPM. >50':FH	Within-PMO Near (200')-FPM Distant (200')-EO	Any stage of growth;EO	Course-FPM Medium-EO Fine-EO	Wet-EO Moist-EO Dry-FH
Canada Thistle	Eradicate-FH Control-FH Contain-FH or FB	Sandy Soils:PMO. GravelBars:EO, AAO.	River Terraces:EO. Toe Slopes:FH	Adjacent to:FPM. <50':EO, AAO. >50':FH	Within-PMO Near (200')-FPM Distant (200')-FH	Rossette to Preflowering- FH.Flower- Seed dispersal-EO	Course-EO Medium-EO Fine-FH	Wet-EO Moist-FH Dry-FH
Common Tansy	Eradicate-EO Control-EO Contain-FH or FB	Sandy Soils:PMO. GravelBars:EO, AAO.	River Terraces:EO. Toe Slopes:FH	Adjacent to:FPM. <50':EO, AAO. >50':FH	Within-PMO Near (200')-FPM Distant (200')-EO	Rossette to Preflowering- EO.Flower- Seed dispersal-EO	Course-FPM Medium-EO Fine-EO	Wet-EO Moist-EO Dry-FH

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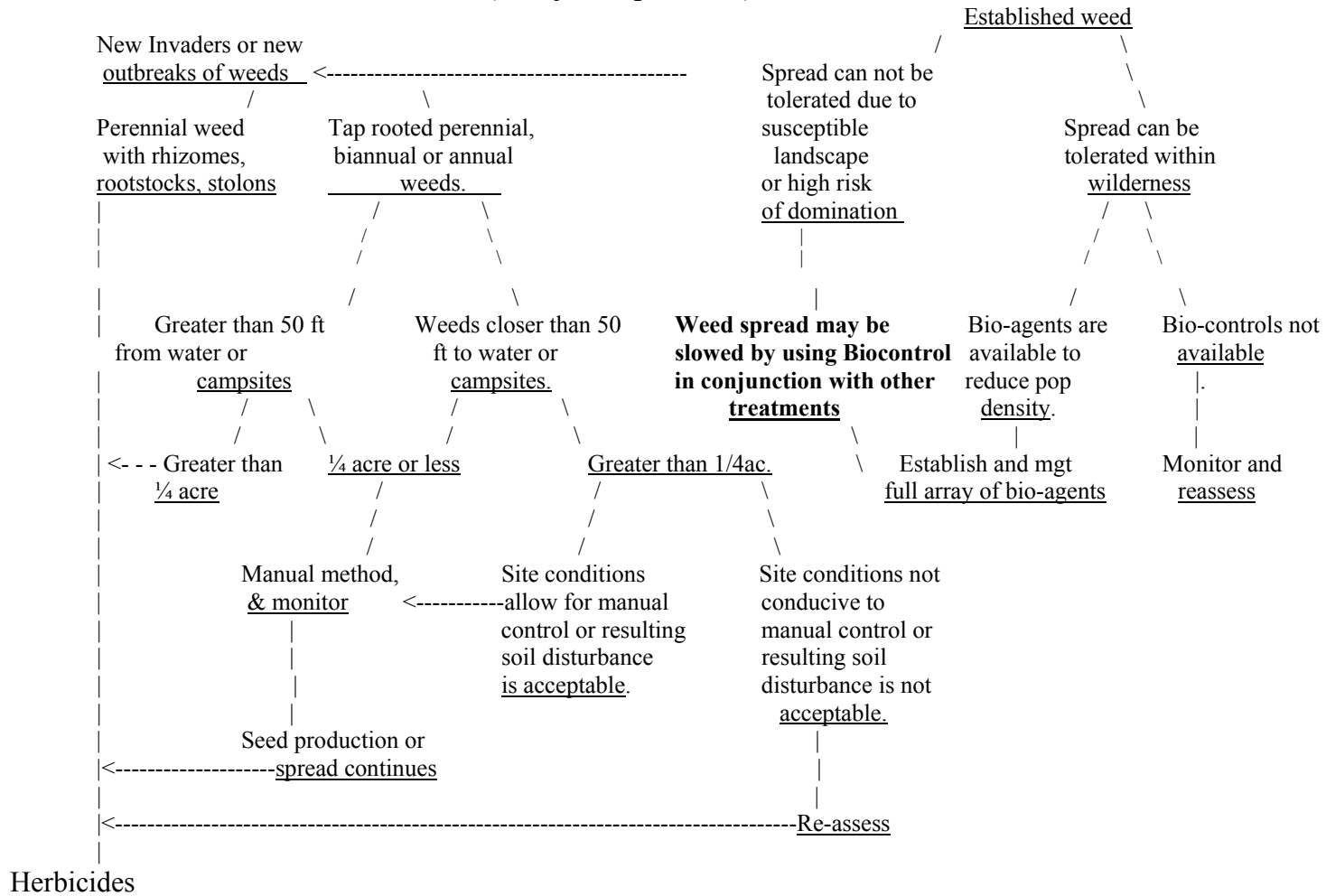
Recommended Treatments Incorporating the Minimum Tool Approach (cont.)

WEED SPECIES	MANAGEMENT OBJECTIVE	RIVER CANYONS BELOW HIGH WATER	RIVER CANYONS ABOVE HIGH WATER	DISTANCE FROM STREAMS & LAKES	OCCUPIED CAMPSITES	PLANT \ GROWTH STAGE	SOIL TEXTURE	SOIL MOISTURE
Field Bindweed	Eradicate-FH Control-EO Contain-EO or FB	Sandy Soils:PMO. Gravel Bars:FPM.	River Terraces:EO. Toe Slopes:EO	Adjacent to:FPM. <50':FPM. >50':FH	Within-PMO Near (200')-FPM Distant (200')-EO	Any stage of growth;EO	Course-FPM Medium-EO Fine-EO	
Bull Thistle	Eradicate-FH Control-EO Contain-FEOor FB	Sandy Soils:PMO. Gravel Bars:FPM.	River Terraces:EO. Toe Slopes:FH	Adjacent to:FPM. <50':EO, AAO. >50':FH	Within-PMO Near (200')-FPM Distant (200')-EO	Rosette to Preflowering- FH.Flower- Seed dispersal-EO	Course-EO Medium-EO Fine-FH	Wet-EO Moist-FH Dry-FH
Oxeye Daisy	Eradicate-FH Control-FH Contain-EO or FB	Sandy Soils:PMO. Gravel Bars:FPM.	River Terraces:EO. Toe Slopes:FH	Adjacent to:FPM. <50':FPM. >50':FH	Within-PMO Near (200')-FPM Distant (200')-EO	Rosette to Preflowering- FH.Flower- Seed dispersal-EO	Course-FPM Medium-EO Fine-EO	Wet-EO Moist-EO Dry-FH
Houndtongue	Eradicate-FH Control-EO Contain-EO or FB	Sandy Soils:PMO. Gravel	River Terraces:EO. Toe Slopes:EO	Adjacent to:FPM. <50':FPM. >50':FH	Within-PMO Near (200')-FPM Distant (200')-EO	Any stage of growth;EO	Course-FPM Medium-EO Fine-EO	Wet-EO Moist-EO Dry-FH

Key for Table 2-1; PMO=Physical-Mechanical Only. FPM=Favor Physical-Mechanical. FH=Favor Herbicides.AAO=If herbicides used, Aquatic Approve Herbicides Only. FB=Favor Biological Control. EO=Either Physical-Mechanical or Herbicides.

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MINIMUM TOOL GUIDELINES (*Modified, April 2004*)



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Treatment Objectives and Priorities by Weed Species*

SPECIES	Infestation <5 Acres	Infestation s 5-25 Acres	Infestation s 26-50 Acres	Infestations > 50 Acres
<i>Potential Invaders</i>	Eradicate			
<i>New Invaders</i>				
Dyers woad	Eradicate			
Dalmation toadflax	Eradicate			
Perennial pea vine	Eradicate			
Thistle, Scotch	Eradicate	Eradicate/ Control	Control	Contain
<i>Established Invaders</i>				
Cinquefoil, Sulfur	Eradicate	Control	Control	Contain/ Custodial
Knapweed, Spotted	Eradicate	Control	Control	Contain
Common Tansy	Eradicate	Control	Contain	Contain/ Custodial
Skeletonweed, Rush	Eradicate	Eradicate	Control	Control/ Contain
Thistle, Canada	Control	Control	Contain	Contain/ Custodial
Thistle, Bull	Control	Contain	Contain/ Custodial	Contain/ Custodial
Common mullien	Eradicate	Control	Contain	Contain/ Custodial
Goatweed	Custodial	Custodial	Custodial	Custodial
Field Bindweed	Control	Control	Contain	Contain/ Custodial
Oxeye Daisy	Control	Control	Contain	Contain/ Custodial
Houndstongue	Control	Control	Contain	Contain/ Custodial

**FCRONR NOXIOUS WEEDS SITE ASSESSMENT (5/30/02)
FOR TES PLANTS & HABITAT**

Location:

Does this qualify as a Disturbed Site (mostly exotic species, no appreciable native vegetation present)? Yes No

Disturbed Site	All Elevations	Predominantly non-native vegetation	Low potential for TES species	LOW RISK: treat as needed.
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If Yes, treatment may proceed without further TES plant constraints.

If No, complete chart below.

1. Determine Habitat Type
2. Determine Risk Rating from Habitat tables
3. Enter potential TES species from Habitat tables
4. Enter recommended treatment from Risk Assessment Table

Habitat Type (including Disturbed or Burned)	Risk Rating	Potential TES plant species	Recommended treatment

If burned, state estimated date of fire:

List predominant plant species present on site:

Trees

Shrubs

Forbs

Grasses

Non-vascular species

RISK ASSESSMENT DEFINITIONS FOR WEED TREATMENT: (use with habitat table below)

Rating for occurrence probability of TES Species and Adverse Effects of Treatment; also based on previous surveys	Treatment strategy	Specific treatment

HIGH	No treatment without completed Botany survey	None
MEDIUM	Treat as specified for TES species. Spot treatments OK.	Spot treatments are for new invaders and priority weeds on spots smaller than 100 sq. ft. (10x10 or equivalent), no more than 25% of entire infestation.
LOW	Treatment may proceed with no TES plants constraints.	Trailside spraying 5 ft. or closer from trail edge, ONLY on trails which have been surveyed in the past AND have no known TES species present.

HABITAT TABLES FOR TES PLANT SPECIES IN FCRONR (excluding species that are Sensitive in Montana only)

T & E LISTED SPECIES (as of 4/2002)					
Habitat/comm unity type	Elevat ion	Potentia l T & E plant species	Kno wn fro m NF, Dist rict, or area with in FC RO NR	Previous surveyed areas & dates	Risk rating for weed treatm ent and Treat ment options
Sand and gravel bars	River bottoms (3000-4000)	Ute ladies' tresses	Main Salmon	Surveys: 1999, main Salmon/Panther/Clear Creek	MEDIUM. Surveys already completed in most potential habitat. Spot treatments ok.
Grasslands -- Bluebunch wheatgrass	1000-3000	Macfarlane's 4-o'clock	Slate Cr., Payette, lower Main Salmon	Surveys: 1999, main Salmon	MEDIUM. Surveys already completed in most potenti

			mon		al habitat. Spot treatments ok.
Grasslands -- Idaho Fescue	2800-4200	Spalding's catchfly	Payette NF, lower Main Salmon	No surveys completed yet.	HIGH. No treatment until Botany surveys completed.

SENSITIVE SPECIES (as of 4/2002)					
Habitat/comm unity type	Elevat ion	Potenti al Sensitiv e plant species	Known from NF, District, or area within FCRON R	Suspec ted locatio ns in FCRO NR	Risk rating and weed treatm ent option s, includi ng spot treatm ents
<p>Sagebrush &/or mountain mahogany grasslands</p> <p>Early seral sites, such as old mine tailings or trail edges, which supports substantial native vegetation.</p> <p>Ponderosa pine/Douglas-fir grasslands and open forests</p>	3200-8100	Lemhi penstem on	North Fork, West Fork	Red River	<p>HIGH except:</p> <p>LOW in disturbed sites. Treat as needed .</p> <p>MEDI UM in areas & trails previously survey ed. Spot treatme nts ok.</p>
	4000-7000	Payson's milkvet ch	Red River, Big Creek, West Fork, North Fork	Suspect ed Slate Cr.	
	3000-7300	Puzzlin g halimol obos (R-1 only)	Slate Cr., West Fork, Big Creek	Suspect ed Red River, Middle Fork, North Fork	
Riparian Hot and cold springs on Main Salmon & Middle Fork	1800-5000	Giant hellebor ine orchid	West Fork (main Salmon), Slate Creek, Big Creek, Middle Fork	Any herbace ous riparian areas of springs	HIGH

Riparian forests	2000-4000	Carex hendersonii		Suspected Nez, Payette	HIGH
Riparian Lakes, wet meadows Bogs	Above 4500 Above 5500 3000-6000	Tall swamp onion Mendocino sphagnum Yellow ladyslipper	Nez P., Payette	Suspected Nez, Payette Suspected Bitterroot	HIGH
Cliff faces	3000-6000	Beautiful bryum	Boise/Payette NF	Suspected Boise	MEDIUM
Moist mid to high elevation forests	Above 4500	Leafless bug-on-a-stick (moss)	Nez P.	Suspected Nez P.	MEDIUM
Grand fir, subalpine fir forests	3000-5000 1500-5000 1500-6000 1500-6000	Idaho barren strawberry Green bug-on-a-stick (moss) Lance-leaved moonwort Pinnate moonwort		Suspected Nez P.	MEDIUM
Lodgepole and whitebark pine forests	4000-7000	Candystick	North Fork, West Fork (upper Selway), Red River, Big Creek	All lodgepole areas	MEDIUM

Subalpine to alpine ridges	7000-8000 Above 6000	Idaho douglasi a Subalpine cetraria (lichen) [growing on ericaceous shrubs]	Red River, Slate Cr., Big Creek	Suspected on all Districts	MEDIUM
Meadows & openings	7000-8000	Cascade reedgrasses (R-4 only)	Payette		MEDIUM