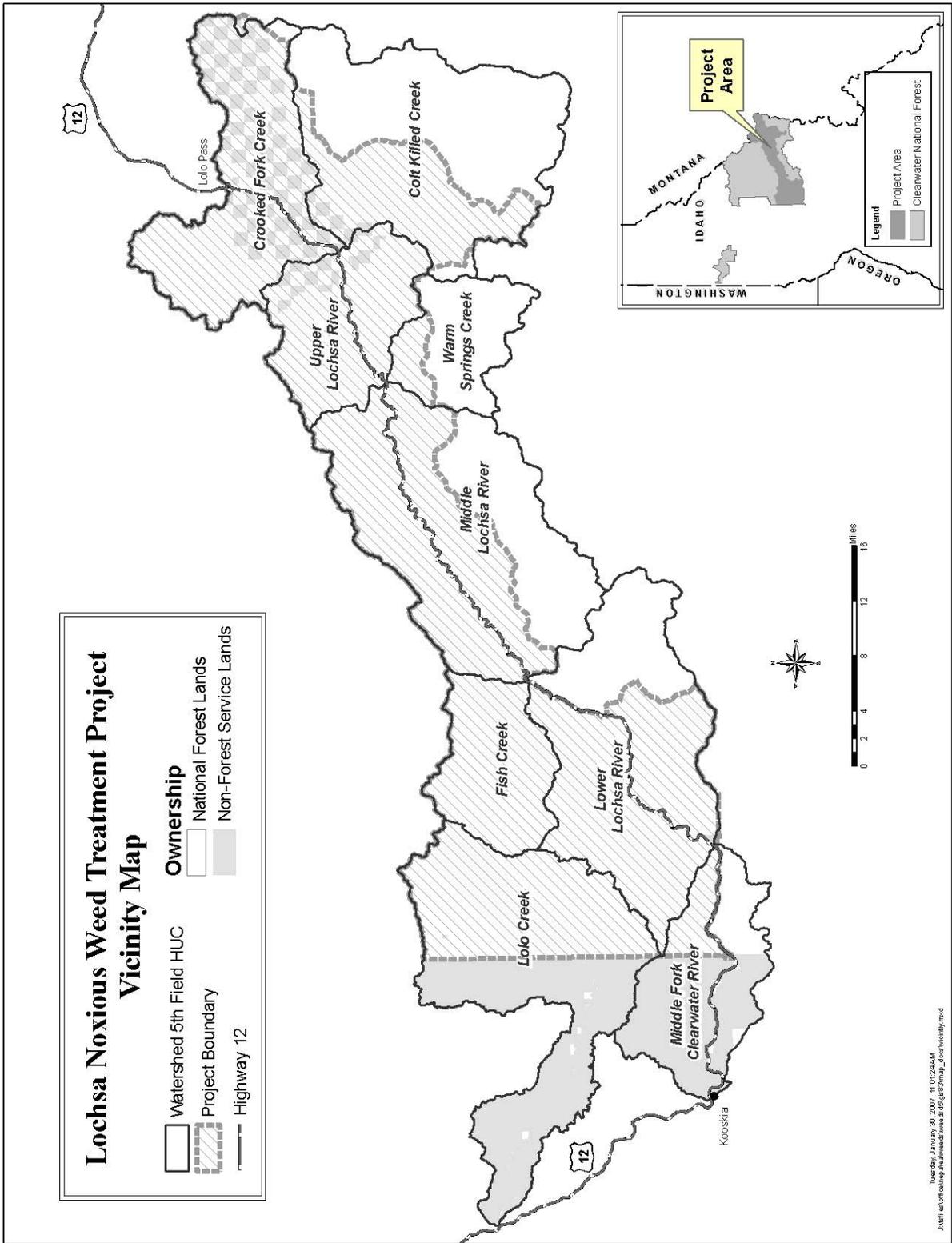


APPENDIX A - Maps

Vicinity Map A-2

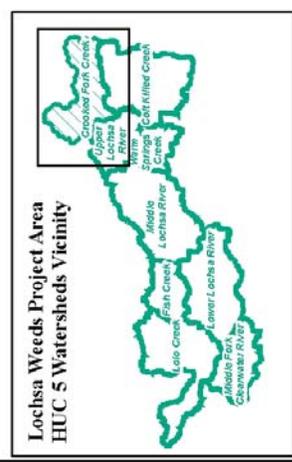
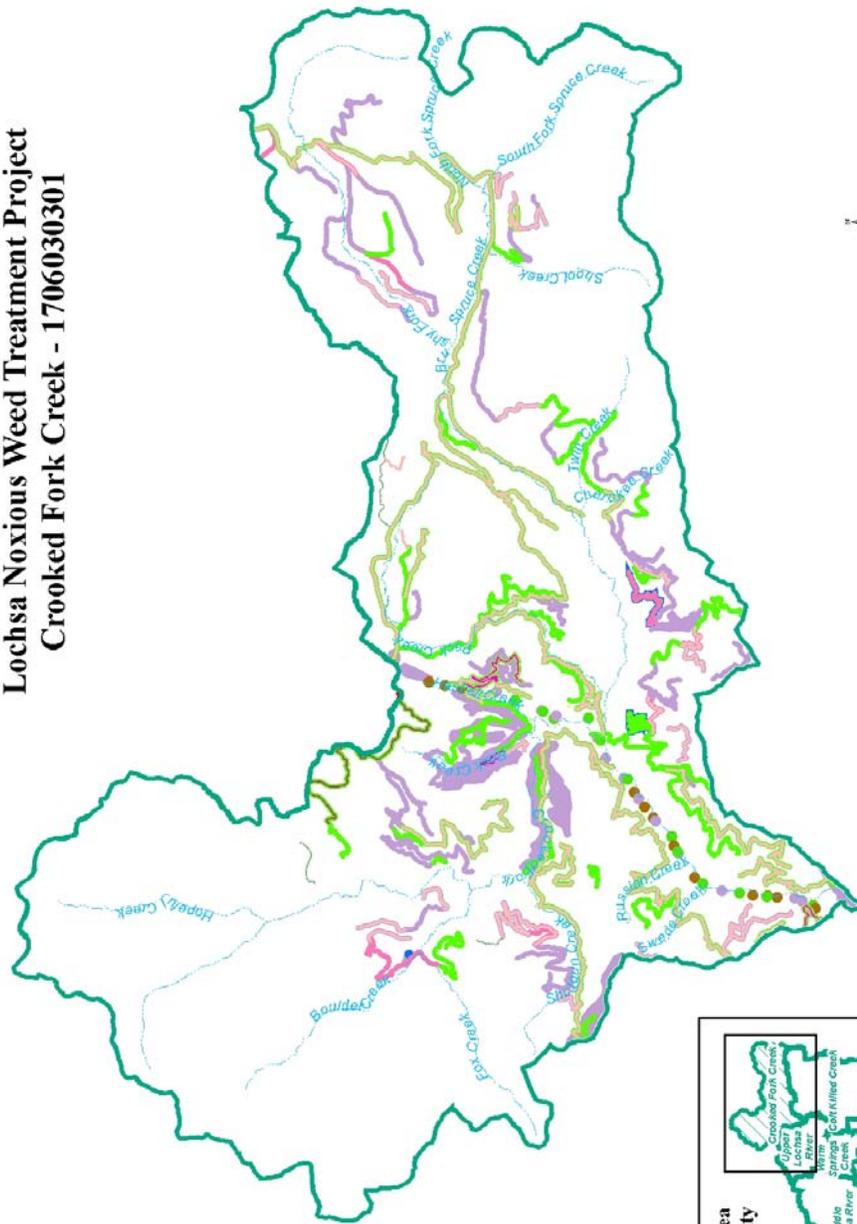
Watershed Maps of Known Concentrations of Noxious Weeds

- Crooked Fork Creek A-3
- Colt Killed Creek A-4
- Upper Lochsa River A-5
- Warm Springs Creek A-6
- Middle Lochsa River A-7
- Fish Creek A-8
- Lower Lochsa River A-9
- Middle Fork Clearwater River A-10
- Lolo Creek A-11



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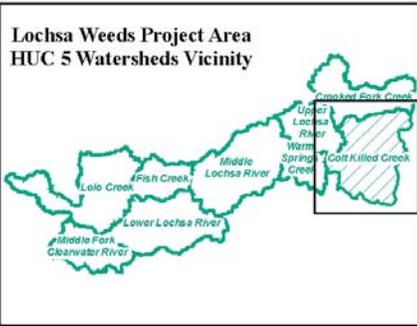
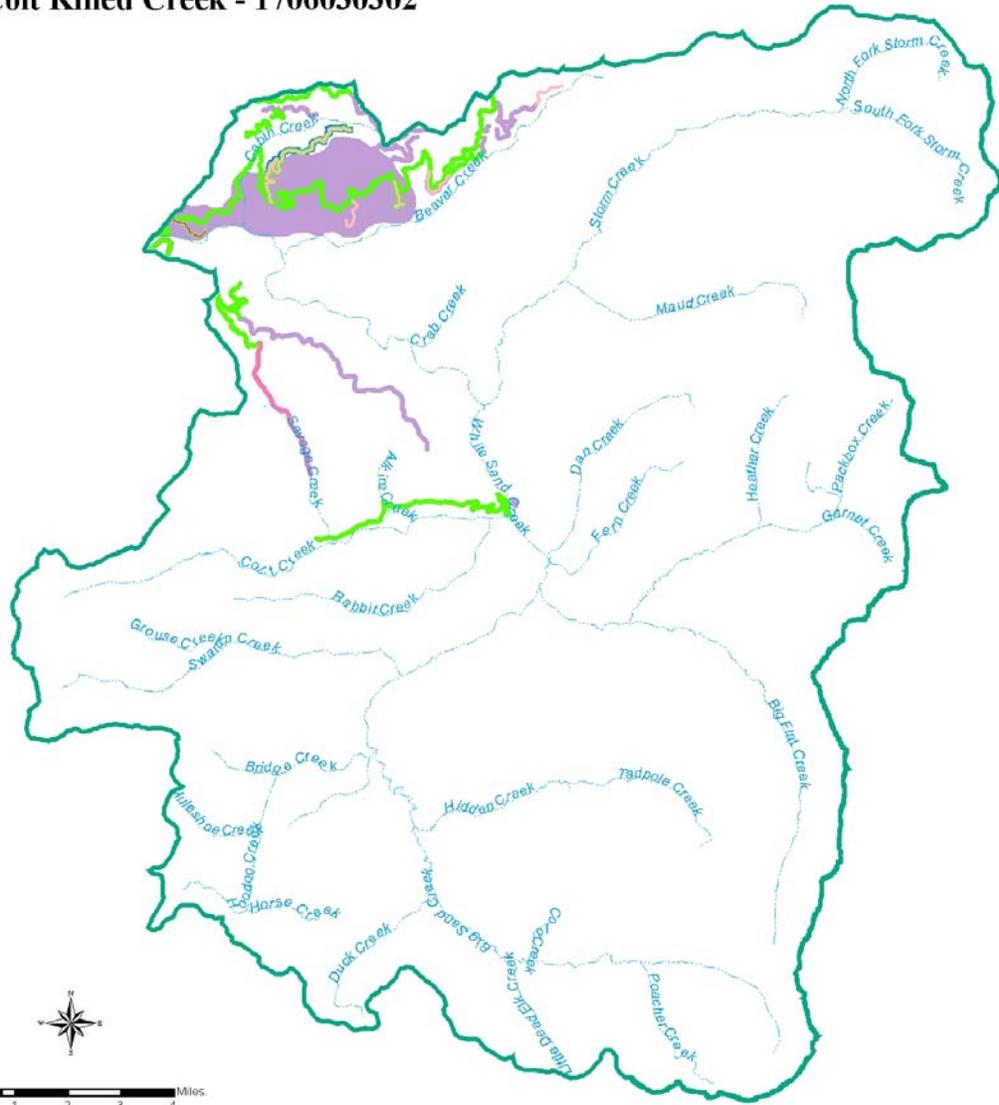
Lochsa Noxious Weed Treatment Project Crooked Fork Creek - 1706030301



Invasive Plants - Inventoried Populations - Species and Common Name	
	CEB12/CEMA - Spotted Knapweed
	HIAU - Orange Hawkweed
	HICA10 - Meadow Hawkweed
	HYN - Henbane
	HYPE - St. Johnswort
	CIAR4 - Canada Thistle
	CYOF - Houndtongue
	EUES - Leafy Spurge
	LALA4 - Perennial Peavine
	LEUV - Oxeye Daisy
	LIDAM, IDAD - Dalmatian Toadflax
	PORES - Sulfur Cinquefoil
	POCLUB - Japanese Knotweed
	TAVU - Common Tansy

Base Legend	
	Analysis Area Boundary
	Watersheds - HUC5
	Watersheds - HUC6
	Streams

Lochsa Noxious Weed Treatment Project Colt Killed Creek - 1706030302

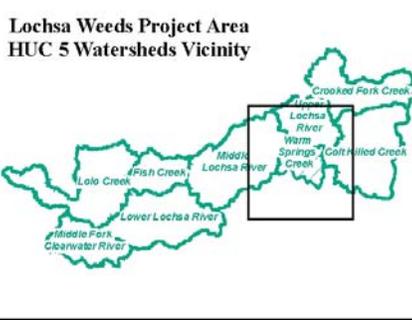
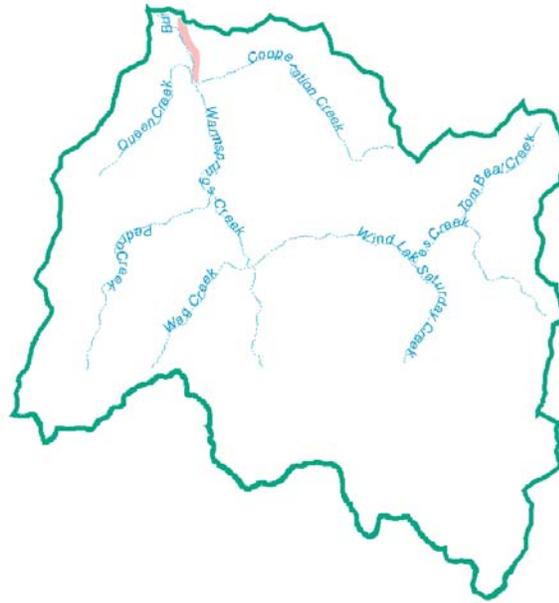


Invasive Plants - Inventoried Populations - Species and Common Name		Base Legend
 CEBI2/CEMA - Spotted Knapweed	 HYPE - St Johnswort	 Analysis Area Boundary
 CIAR4 - Canada Thistle	 LALA4 - Perennial Peavine	 Watersheds - HUC5
 CIVU - Bull Thistle	 LEVU - Oxeye Daisy	 Watersheds - HUC6
 HIAU - Orange Hawkweed	 LIDA/LIDAD - Dalmation Toadflax	 Streams
 CYOF - Houndtongue	 PORE5 - Sulfur Cinquefoil	
 EUES - Leafy Spurge	 POCU6 - Japanese Knotweed	
 HICA10 - Meadow Hawkweed	 TAVU - Common Tansy	
 HYNI - Henbane		

Source: USFS -R1 -Northern Region - Clearwater National Forest - 01/21/2007 SM3

Lochsa Noxious Weed Treatment Project

Warm Springs Creek - 1706030304



Invasive Plants - Inventoried Populations - Species and Common Name

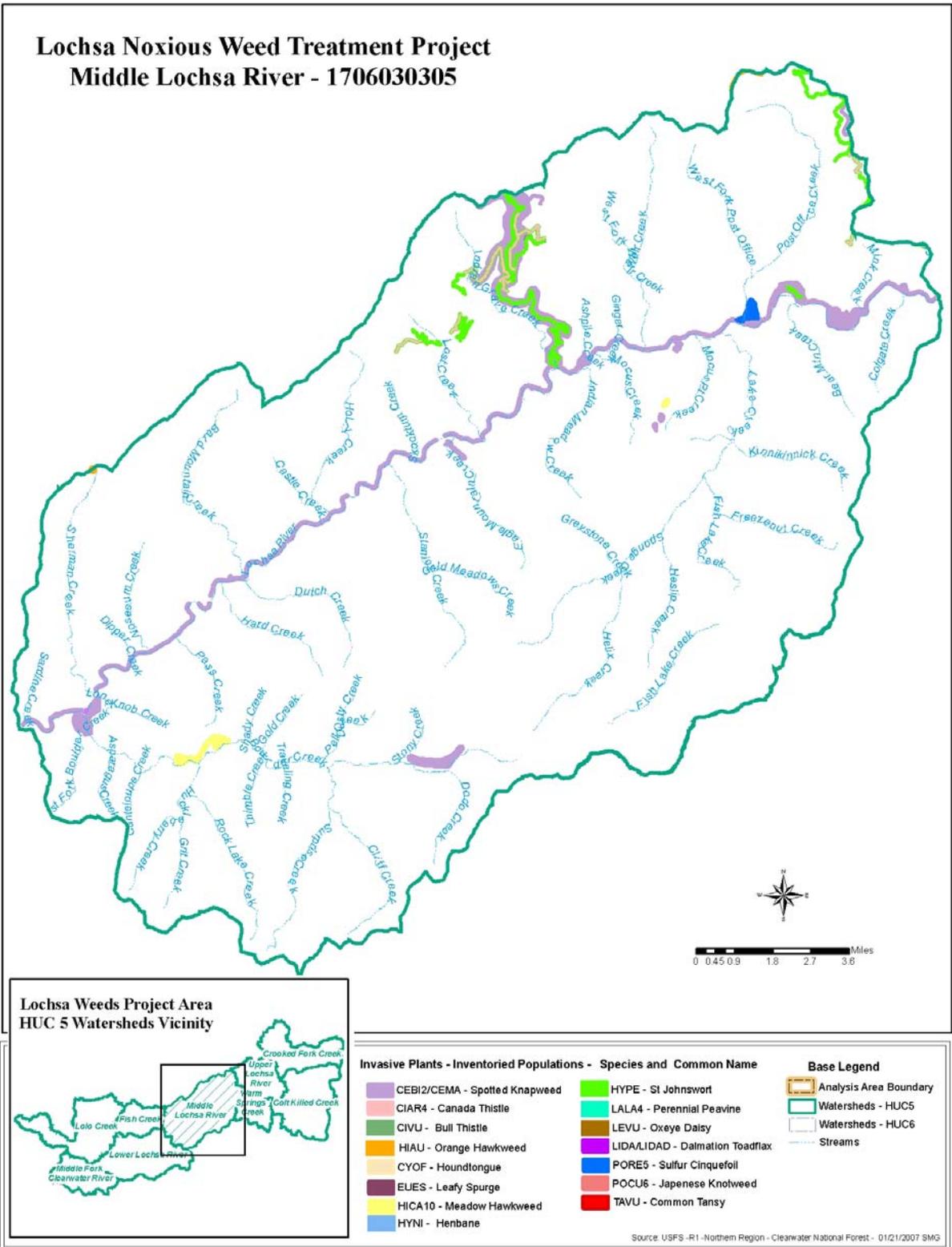
CEBI2/CEMA - Spotted Knapweed	HYPE - St Johnswort
CIAR4 - Canada Thistle	LALA4 - Perennial Peavine
CIVU - Bull Thistle	LEVU - Oxeye Daisy
HIAU - Orange Hawkweed	LIDA/LIDAD - Dalmation Toadflax
CYOF - Houndtongue	PORE5 - Sulfur Cinquefoil
EUES - Leafy Spurge	POCU6 - Japanese Knotweed
HICA10 - Meadow Hawkweed	TAVU - Common Tansy
HYNI - Henbane	

Base Legend

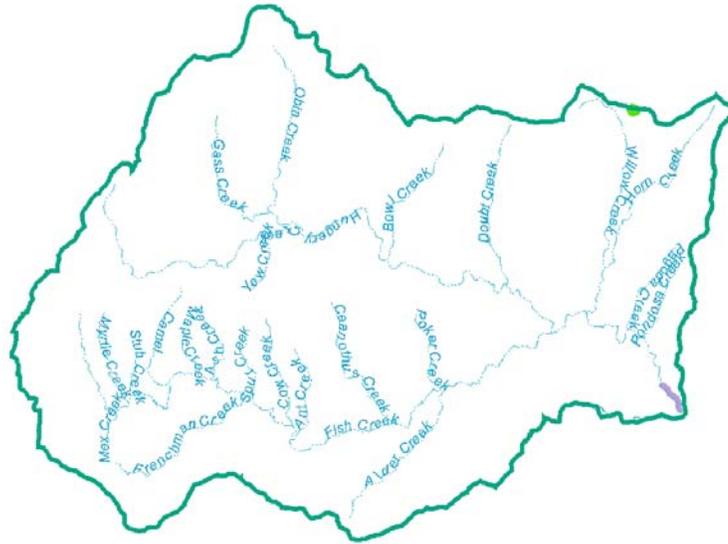
	Analysis Area Boundary
	Watersheds - HUC5
	Watersheds - HUC6
	Streams

Source: USFS -R1 -Northern Region - Clearwater National Forest - 01/21/2007 SM3

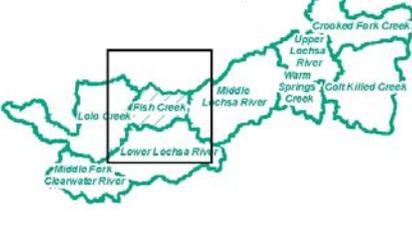
Lochsa Noxious Weed Treatment Project Middle Lochsa River - 1706030305



Lochsa Noxious Weed Treatment Project Fish Creek - 1706030306



Lochsa Weeds Project Area HUC 5 Watersheds Vicinity



Invasive Plants - Inventoried Populations - Species and Common Name

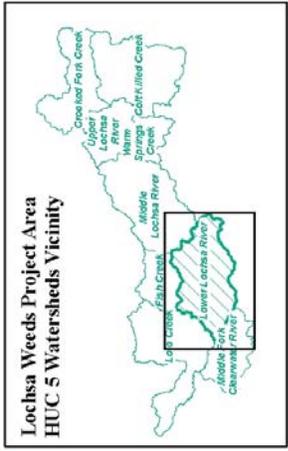
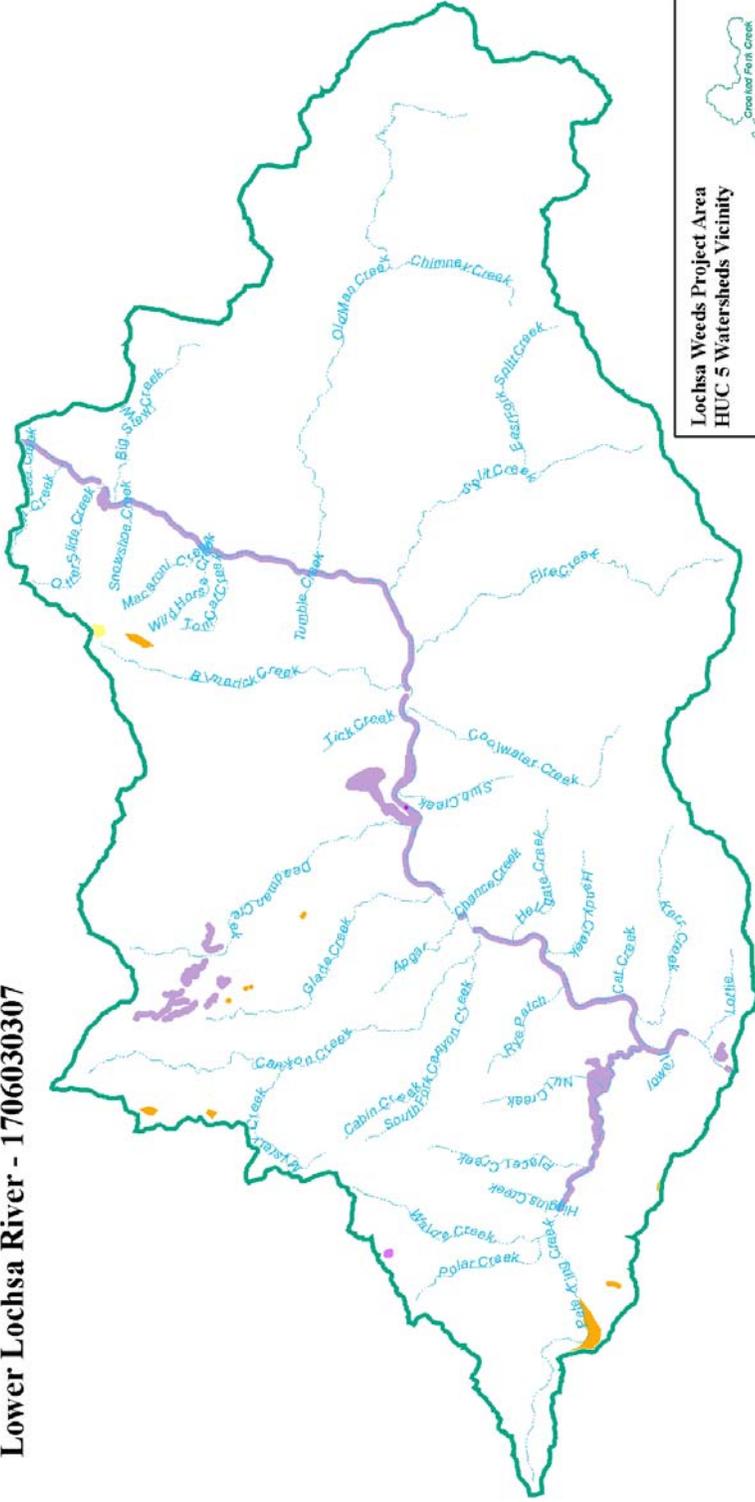
CEBI2/CEMA - Spotted Knapweed	HYPE - St Johnswort
CIAR4 - Canada Thistle	LALA4 - Perennial Peavine
CIVU - Bull Thistle	LEVU - Oxeye Daisy
HIAU - Orange Hawkweed	LIDA/LIDAD - Dalmation Toadflax
CYOF - Houndtongue	PORE5 - Sulfur Cinquefoil
EUES - Leafy Spurge	POCU6 - Japanese Knotweed
HICA10 - Meadow Hawkweed	TAVU - Common Tansy
HYNI - Henbane	

Base Legend

	Analysis Area Boundary
	Watersheds - HUC5
	Watersheds - HUC6
	Streams

Source: USFS -R1 -Northern Region - Clearwater National Forest - 01/21/2007 SM3

Lochsa Noxious Weed Treatment Project Lower Lochsa River - 1706030307



Base Legend

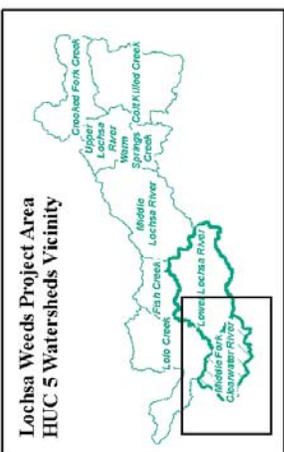
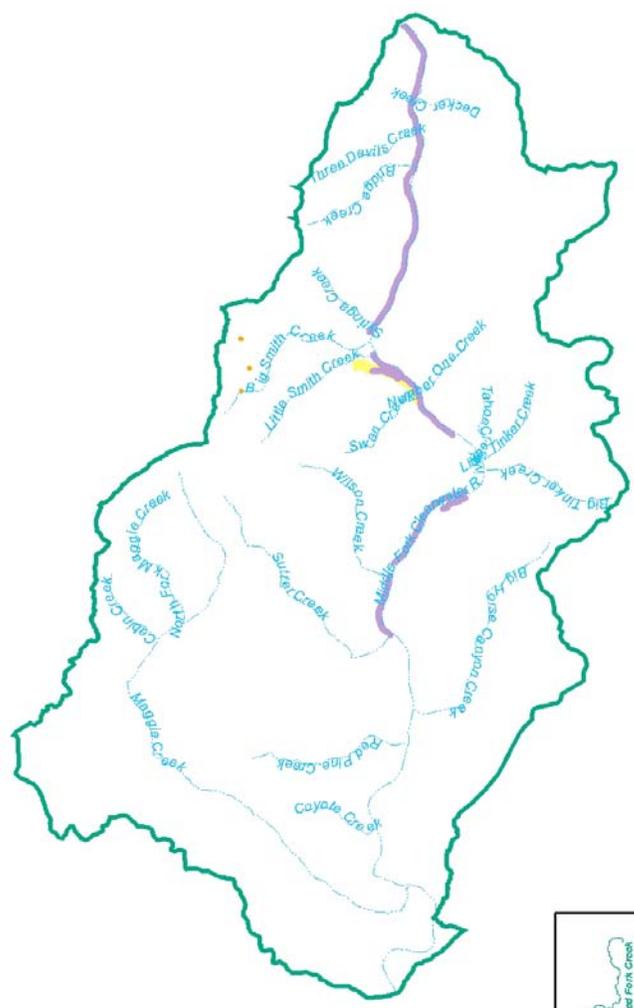
- Analysts Area Boundary
- Watersheds - HUC 5
- Watersheds - HUC 6
- Streams

Invasive Plants - Inventoried Populations - Species and Common Name

- CEB12/CEMA - Spotted Knapweed
- CIAR4 - Canada Thistle
- CIVU - Bull Thistle
- HIAU - Orange Hawkweed
- CYOF - Houndstongue
- EUES - Leafy Spurge
- HICA10 - Meadow Hawkweed
- HYN1 - Henbane
- HYPE - St. Johnswort
- LALA4 - Perennial Peavine
- LEVU - Oxeye Daisy
- LIDAL/DAD - Dalmatian Toadflax
- PORES - Sultur Cinqufoil
- POCCU6 - Japanese Knotweed
- TAVU - Common Tansy

Source: USFS - R1 - Northern Region - Clearwater National Forest - 01/21/2007 S/MG

**Lochsa Noxious Weed Treatment Project
Middle Fork Clearwater River - 1706030400**



Base Legend

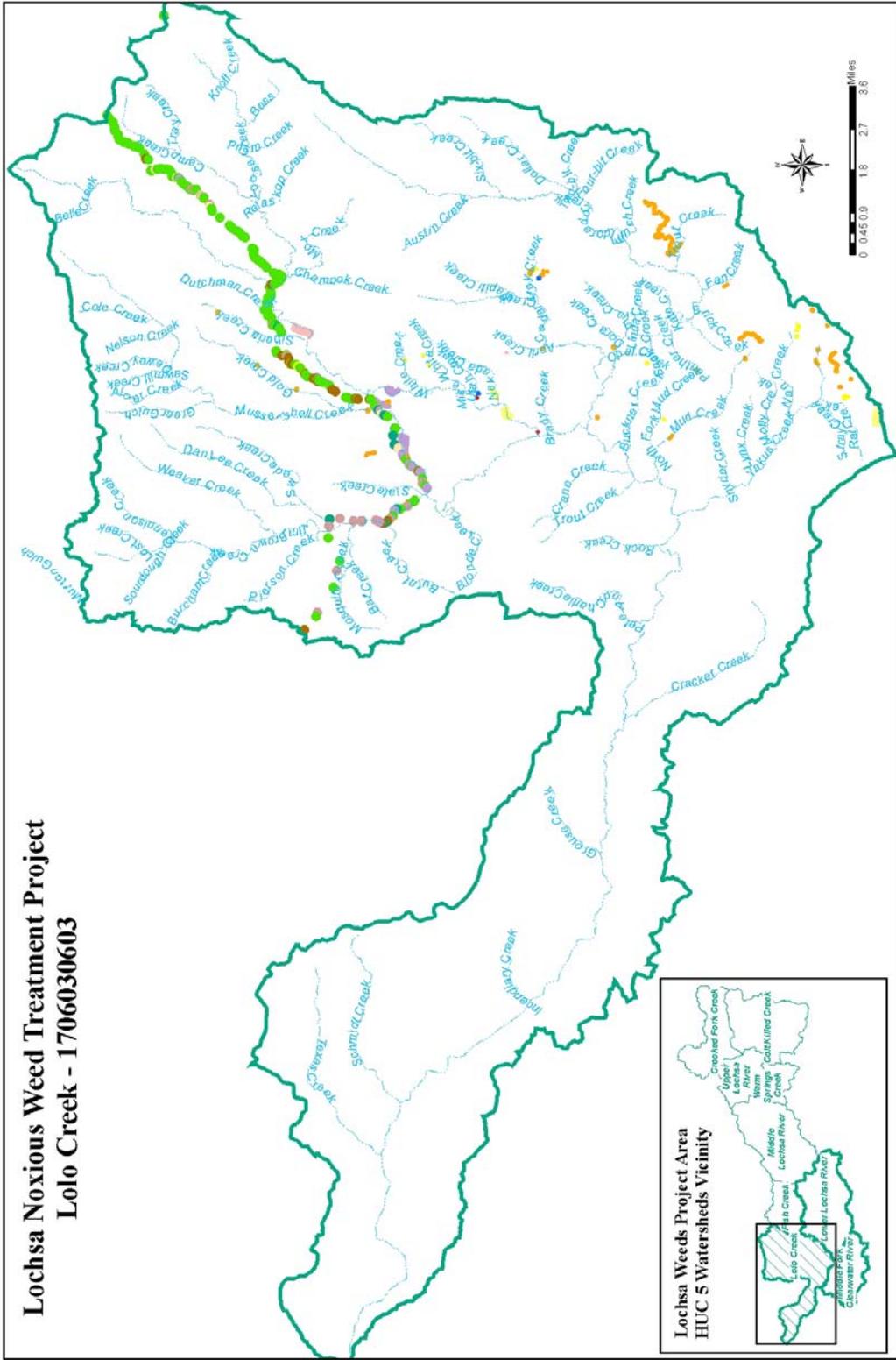
- Analysts Area Boundary
- Watersheds - HUC5
- Watersheds - HUC6
- Streams

Invasive Plants - Invented Populations - Species and Common Name

- CEBI2/CEMA - Spotted Knapweed
- CIAR4 - Canada Thistle
- CIVU - Bull Thistle
- HIAU - Orange Hawkweed
- CYOF - Houndstongue
- EUES - Leafy Spurge
- HICA10 - Meadow Hawkweed
- HYN1 - Henbane
- HYPE - St. Johnswort
- LALA4 - Perennial Peavine
- LEVU - Oxeye Daisy
- LIDAM/LIDAD - Dalmatian Toadflax
- PORES - Sulfur Cinqufoil
- POCUS - Japanese Knotweed
- TAVU - Common Tansy

Source: USFS - RT - Northern Region - Clearwater National Forest - 01/21/2007 SMC

Lochsa Noxious Weed Treatment Project Lolo Creek - 1706030603



Base Legend

- Analyst Area Boundary
- Watersheds - HUC5
- Watersheds - HUC6
- Streams

Invasive Plants - Inventoried Populations - Species and Common Name

- CEBI2/CEMA - Spotted Knapweed
- CIAR4 - Canada Thistle
- CIVU - Bull Thistle
- HIAU - Orange Hawkweed
- CYOF - Houndtongue
- EUES - Leafy Spurge
- HICA10 - Meadow Hawkweed
- HYN1 - Henbane
- HYPE - St. Johnswort
- LALA4 - Perennial Peavine
- LEVU - Oxeye Daisy
- LIDA/LIDAD - Dalmatian Toadflax
- PORES - Sultur Cinqufoil
- POCUB - Japanese Knotweed
- TAVU - Common Tansy

Source: USFS - RT - Northern Region - Clearwater National Forest - 01/21/2007 S/MG

APPENDIX B — PROPOSED ANNUAL OPERATING PLAN

Upper Clearwater Cooperative Weed Management Area Lochsa, Selway, and South Fork Clearwater River Watersheds Annual Operating Plan for FY 2006

Introduction:

The Annual Operating Plan (AOP) describes the management actions and activities that the cooperators agree to accomplish for the upcoming year. The AOP guides implementation of the Strategic Plan for 2006. The actions stated below are consistent with the specific Objectives and Priorities outlined in the Strategic Plan (12/2005) for the Upper Clearwater Cooperative Weed Management Area

To assist in integrating weed management activities and coordinating yearly treatments, the sites identified in the treatment tables have been linked with an objective-priority code. Each infestation has been given a code that relates to the planned management outcome and the relative importance of the treatment and is based on the objectives and general priorities of the UCWMA Strategic Plan (12/2005). Objective and priority definitions in the following table have been reworded to reflect an operational approach. This coding system provides guidance during the year to field crews and landowners on where to place limited resources to obtain the most effective long-term results.

<i>Operational Objectives for FY2006:</i>	<i>Operational Priorities for FY2006:</i>
<p>1. Eradicate: The invasive weed is treated to the extent that no viable seed is produced over the entire infestation and all plants (above ground portions) have been eliminated during the current field season.</p> <p>2. Eradicate Satellites: Satellites are treated to the extent that no viable seed is produced over the specific outbreak. All plants are eliminated during the current field season.</p> <p>3. Spread Corridors: Treatment of weeds along specific roads, trails and high human use areas where there is a high risk of spread from the source infestation along the corridor.</p> <p>4. Control of Widespread Weeds in Key Areas: Portions of the infestation or outbreak are treated to the extent that overall infestation area diminishes because no viable seed is produced and/or plants have been eliminated.</p> <p>5. Contain: Strategic infestations are treated to the extent that the weed is not expanding beyond an established battle zone. The main body of the infestations may be left untreated.</p> <p>6. Reduce Density: The infestation is managed to the extent that densities and/or rate of spread are reduced to an acceptable level.</p>	<p>H. High: Important actions due to invasive weed with relative high rate of spread and/or high impact potential in susceptible habitats of high value.</p> <p>M. Moderate: moderately important actions due to invasive weed with moderate rate of spread, moderate impact potential in somewhat susceptible but disturbed habitats.</p> <p>L. Low: Actions associated with invasive weeds with low impact potential or rates of spread in areas of low susceptibility where rapid spread is unlikely. May not need immediate (current year) attention.</p>

Eradication Process for the UCWMA during the 2006 field season.

The Objectives of the Eradication Process are to:

Insure that not a single plant sets viable seed or spreads vegetatively for the entire growing season (April-November);

100% of the known plants are eliminated from the site;

Management focus is maintained throughout the growing season;

Treatment prescriptions are effective;

Useful data is collected; and

Information is communicated in a timely manner.

The Operational Guidelines for The Eradication Process:

1. The lead partner listed in the Annual Operating Plan will initiate a site-specific thorough survey of each new invader prior to treatment (as early in the season and site conditions will allow).
2. As a result of the survey the responsible agency will organize, schedule and implement the treatment of the target weed. This step will include documenting and communicating the survey results to the steering committee Chair.
3. Buffering patches and broadcast spraying should be considered to ensure treatment of potential germinates and unseen seedlings.
4. Following treatment, location and management data would be communicated to the steering committee Chair.
5. The project coordinator will dispatch a person or crew to monitor the site and determine treatment effectiveness. The project coordinator may send a third party for an independent review of the site. The results of the follow-up monitoring would be documented and communicated to the steering committee Chair.
6. As a result of the monitoring, a follow-up treatment will be prescribed with the involvement of the treatment applicator, project coordinator and responsible entity.
7. The treatment applicator would implement necessary follow-up treatment prescription.

This process would be conducted to achieve a minimum of three visits to each site per season to insure treatment of missed plants, regrowth, germinates, and late developing plants.

Planned Action Items:

1. TREATMENT

Planned Treatment of New Invasive Weeds: Treatment of invasive weeds with an Eradication Objective is critical to effective weed management. The eradication protocol that will be followed is: 1) Pre-treatment surveys; 2) Initial early season treatment; 3) A minimum of two follow-up assessments; and 4) Additional treatments as necessary to ensure that no viable seed is produced. Discoveries of new invasive weeds will be assigned an eradication objective and added to the AOP. Information concerning treatment effectiveness and recently identified new invasive weeds will be communicated to Idaho County Weed Control.

Objective 1: New Invasive Weeds

Weed	Site Location	Acres	Owner	Field Notes
Diffuse knapweed	049CROCKERCR-ARNZEN-CEDI3-01	7.00	N.Arnzen	
Diffuse knapweed	049CROCKERCR-ARNZEN-CEDI3-04	0.10	N.Arnzen	
Diffuse knapweed	049GRANGE-SPENCER-CEDI3-01	2.00	C.Spencer	
Leafy spurge	049BROTNNOV-EUES-01	8.00	J.Brotnov	
Leafy spurge	049RABBITCR-EUES-01	0.10	IDCO	
Meadow hawkweed	011704HICA10-1866RD	1.00	NPNF04	
Meadow hawkweed	011705LEGGET9841-HICA10-1	9.00	NPNF05	
Meadow hawkweed	011705LEGGET9841-HICA10-2	9.00	NPNF05	
Meadow hawkweed	011705rd222-HICA10-01	9.50	NPNF05	
Meadow hawkweed	011705rd222-hica10-02Julia'sFolly	3.00	NPNF05	
Meadow hawkweed	011705rd222-hica10-03BullRun	2.00	NPNF05	
Meadow hawkweed	011706OHARA-HICA10	2.00	NPNF05	
Meadow hawkweed	049CROCKERCR-ARMIGER-HICA10-01	35.00	R.Armiger	
Meadow hawkweed	049CROCKERCR-ARNOLD-HICA10-01	0.10	PRIV	
Meadow hawkweed	049CROCKERCR-RINGEN-HICA10-04	0.20	PRIV	
Meadow hawkweed	049CROCKERCRSARACE-HICA10-01	2.50	D.Saraceno	
Meadow hawkweed	049CROCKERCR-WEST-HICA10-01	0.10	R.West	
Orange hawkweed	011704dumpcr-HIAU-01	7.00	NPNF04	
Orange hawkweed	011704HIAU-2026rd	0.50	NPNF04	
Orange hawkweed	011704HIAU-9423	0.10	NPNF04	
Orange hawkweed	011704MacomasSiteHIAU	8.13	NPNF04	
Orange hawkweed	011704MCCOMUSHIAU-NOHOPE	18.80	NPNF04	
Orange hawkweed	049COTTBUTT-LUTE-HIAU-01	3.00	B.LUTE	
Orange hawkweed	049CROCKERCR-ARMIGER-HIAU-01	3.00	R.Armiger	
Orange hawkweed	049CROCKERCR-ARNOLD-HIAU-01	13.00	E.Arnold	

Orange hawkweed	049CROCKERCR-ARNOLD-HIAU-02	0.10	PRIV	
Orange hawkweed	049CROCKERCR-ARNZEN-HIAU-01	9.10	N.Arnzen	
Orange hawkweed	049CROCKERCR-RINGEN-HIAU-02	1.00	E.Ringen	
Orange hawkweed	049CROCKERCR-RINGEN-HIAU-03	1.00	E.Ringen	
Orange hawkweed	049CROCKERCR-RINGEN-HIAU-05	0.10	PRIV	
Orange hawkweed	049CROCKERCR-RINGEN-HIAU-06	2.00	E.Ringen	
Orange hawkweed	049CROCKERCR-RINGEN-HICA10-03	0.50	E.Ringen	
Orange hawkweed	049CROCKERCRSARACEN-HIAU-01	1.50	D.Saraceno	
Orange hawkweed	049CROCKERCR-WEST-HIAU-01	0.10	R.West	
Orange hawkweed	049CROCKERCR-WEST-HIAU-05	0.15	R.West	
Orange hawkweed	049CROCKERCR-WEST-HIAU-07	0.70	R.West	
Orange hawkweed	049CROCKERCR-WOOD-HIAU-01	1.00	PRIV	
Orange hawkweed	049CROCKERCR-WOOD-HIAU-02	0.10	PRIV	
Orange hawkweed	049LOLOCR-GILSTER-HIAU-01	2.00	M.Gilster	
Orange hawkweed	049MAGGIECR-WEST-HIAU-01	0.10	R.West	
Orange hawkweed	049MAGGIECR-WEST-HIAU-02	0.50	PRIV	
Orange hawkweed	049MAGGIECR-WEST-HIAU-03	0.10	R.West	
Orange hawkweed	049MAGGIECR-WEST-HIAU-04	0.10	R.West	
Orange hawkweed	049MAGGIECR-WEST-HIAU-05	0.10	R.West	
Orange hawkweed	049MAGGIECR-WEST-HIAU-08	0.20	R.West	
Scotch broom	011706-OHARA2	2.00	NPNF06	
Scotch broom	Apgar	?	CNF?	
Scotch broom	Syringa	?	Priv?	
Scotch broom	GladeCr/ Canyon	?	?	
Yellow toadflax	011704TENMILEFLAT2-LIVU2	4.00	NPNF04	
Yellow toadflax	011704TENMILEFLAT-LIVU2	4.00	NPNF04	
Yellow toadflax	011705RD222REDRIVER-LIVU2-01	0.25	NPNF05	
Yellow toadflax	011705RD222REDRIVER-LIVU2-04	0.20	NPNF05	

Planned Treatment of Outbreaks and Isolated Infestations: Priority treatments include isolated new infestations or new outbreaks of invasive weeds found in susceptible habitat, and the basin priority to eliminate the extent of Japanese knotweed in areas outside the core zone of Kooskia/Clear Creek/Harpster.

Objective 2: Satellites and New Outbreaks

Priority	Weed	Site Location	Acres	Owner	Field Notes
2C	Japanese knotweed	049GOLDEN-POCU6-01	0.10	ITD	
2C	Japanese knotweed	049GREENCR-POCU6-01	1.50	NPNF04	
2C	Japanese knotweed	Boyd Cr	?	?	
2C	Japanese knotweed	Middle Fork	?	Priv?	
2H	Japanese knotweed	049GREENCR-POCU6-01	1.00	NPNF04	
2H	Spotted knapweed	011704RD1103-CEBI2-02	3.00	NPNF04	
2H	Spotted knapweed	011704RD2009-CEBI2-01	10.50	NPNF04	
2H	Spotted knapweed	011704RD2022BEARTRAP-CEBI2-01	8.00	NPNF04	
2H	Spotted knapweed	011704RD244-CEBI2-01	12.00	NPNF04	
2H	Spotted knapweed	011704RD244CEBI2-01	4.00	NPNF04	
2H	Spotted knapweed	011704RD244-CEBI2-02	1.00	NPNF04	
2H	Spotted knapweed	011704RD451-CEBI2-01	56.00	NPNF04	
2H	Spotted knapweed	011704RD451-CEBI2-02	13.00	NPNF04	
2H	Spotted knapweed	011704RD451-CEBI2-03	0.25	NPNF04	
2H	Spotted knapweed	011704RD451-CEBI2-04	0.80	NPNF04	
2H	Spotted knapweed	011704RD451-CEBI2-05	4.00	NPNF04	
2H	Spotted knapweed	011704RD451-CEBI2-06	0.15	NPNF04	
2H	Spotted knapweed	011705RD234-RRHOTSPR	11.00	NPNF05	
2H	Spotted knapweed	011706FENN-RS3	2.00	NPNF06	
2H	Spotted knapweed	011706RD223-SELWAY	44.00	NPNF06	
2H	Spotted knapweed	011706RD317-COOLWATER	3.00	NPNF06	
2H	Spotted knapweed	049CROCKERCR-ARNZEN-CEBI2-01	2.00	N. Arnzen	
2H	Spotted knapweed	049GLENWDDUMPSTER-CEBI2-01	0.10	IDCO	
2H	Spotted knapweed	049GVLBYPASSRR-CEBI2-01	0.50	PRIV	
2H	Spotted knapweed	049LOLOCR-JSNYDER-CEBI2-01	0.10	J. Snyder	
2H	Yellow starthistle	011704RD451A-CESO3	0.25	NPNF04	
2H	Yellow starthistle	049HR-CARR-CESO3-01	10.00	D. CARR	
2H	Yellow starthistle	049HR-HOMSEY-CESO3-01	5.00	A. HOMSEY	
2H	Yellow starthistle	049HR-IDL-CESO3-01	25.00	IDL	
2H	Yellow starthistle	049HR-LAUGHY-CESO3-01	12.00	L. LAUGHY	
2H	Yellow starthistle	049HR-MAGGIEIDL-CESO3-02	10.00	IDL-K	
2H	Yellow starthistle	049HR-REDPINECR-CESO3-01	20.00	D. CARR	

2H	Yellow starthistle	049HR-REESE-CESO3-01	5.00	C. REESE
2H	Yellow starthistle	049HR-SCHROEDER-CESO3-01	5.00	A.SCHROEDER
2H	Yellow starthistle	049HR-SCHROEDER-CESO3-02	5.00	A.SCHROEDER
2H	Yellow starthistle	049HR-WALDRIP-CESO3-01	5.00	W. WALDRIP
2H	Yellow starthistle	049HR-WILLIAMS-CESO3-01	6.00	G. WILLIAMS
2H	Yellow starthistle	049HR-WYKLE-CESO3-01	64.00	P. WYKLE
2H	Yellow starthistle	011704COTTER-CESO3-r	11.00	NPNF04
2H	Yellow starthistle	049BATTLERIDGE-CESO3-01	8.00	B.JACKSON
2H	Yellow starthistle	049KIDDERRIDGE-CESO3-01	12.00	B.JACKSON
2M	Diffuse knapweed	049COTTBUTTGREENE-CED13-01	2.00	D.Green
2M	Scotch thistle	011706RACE_CR-TRAILHEAD	1.00	NPNF06
2M	Spotted knapweed	011704SFCEBI2-TOO2	0.20	NPNF04
2M	Spotted knapweed	011706-20MILE-BAR	1.00	NPNF06
2M	Spotted knapweed	011706-25MILE-BAR	1.00	NPNF06
2M	Spotted knapweed	011706BOYDCR-CG	1.00	NPNF06
2M	Spotted knapweed	011706FOG-MTN	1.00	NPNF06
2M	Spotted knapweed	011706GLOVER-CG	2.00	NPNF06
2M	Spotted knapweed	011706RACETRACK	2.00	NPNF06
2M	Spotted knapweed	011706RD223-SELWAY	0.25	NPNF06
2M	Spotted knapweed	011706RD290-INDIANHILL	1.20	NPNF06
2M	Spotted knapweed	011706RD319FOGMTN	1.00	NPNF06
2M	Spotted knapweed	011706SELWAYFALLS	2.00	NPNF06
2M	Spotted knapweed	011706TR703BOYD	0.10	NPNF06
2M	Spotted knapweed	049COTTBUTTE-CEBI2-02	3.00	PRIV
2H	Dalmatian toadflax	011705RD222-REDRIVER	0.10	NPNF05
2H	Dalmatian toadflax	011704fishcreek-LIDA	0.4	NPNF04

Planned Treatment of specific invasive weeds along corridors of spread and high human use area: The following table specifies the management actions planned for 2006 for weeds along transportation corridors, high human uses areas.

Objective 3: Treat Key Spread Corridors: Roads, Trails, High Human Use Areas

Priority	Weed	Site Location	Acres	Owner	Field Notes
3H	Spotted knapweed	011704BLACKERBY-PICNICAREA	0.50	NPNF04	
3H	Spotted knapweed	011704BROWNSCR-CEBI2	3.00	NPNF04	
3H	Spotted knapweed	011704CASTLE-CR-CAMP	0.25	NPNF04	
3H	Spotted knapweed	011704CASTLE-CR-CAMP	5.00	NPNF04	
3H	Spotted knapweed	011704CASTLE-CR-WORKCENTER	1.00	NPNF04	
3H	Spotted knapweed	011704CASTLE-CR-WORKCENTER	2.00	NPNF04	
3H	Spotted knapweed	011704COUGAR-CR-CG	2.00	NPNF04	
3H	Spotted knapweed	011704D4STATION	1.00	NPNF04	
3H	Spotted knapweed	011704EARTHQUAKECR-CEBI2	0.50	NPNF04	
3H	Spotted knapweed	011704FISHCRCG_CEBI2	0.25	NPNF04	
3H	Spotted knapweed	011704HUNGRYRG1102CEBI2	2.00	NPNF04	
3H	Spotted knapweed	011704HUNGRYRGCLEARING	0.25	NPNF04	
3H	Spotted knapweed	011704HUNGRY-RIDGE1	5.00	NPNF04	
3H	Spotted knapweed	011704HUNGRY-RIDGE2	10.00	NPNF04	
3H	Spotted knapweed	011704JOHNS-CR	1.00	NPNF04	
3H	Spotted knapweed	011704JOHNSCREEKL-CEBI2	1.00	NPNF04	
3H	Spotted knapweed	011704JOHNSCREEKMID-CEBI2	0.50	NPNF04	
3H	Spotted knapweed	011704MEADOW-CR	1.00	NPNF04	
3H	Spotted knapweed	011704NELSONCR-CEBI2	2.00	NPNF04	
3H	Spotted knapweed	011704OLD-FISHCR-QUARRY	3.00	NPNF04	
3H	Spotted knapweed	011704PEASLEY-CR-CG1	1.00	NPNF04	
3H	Spotted knapweed	011704RD286-BIGCEDAR	0.50	NPNF04	
3H	Spotted knapweed	011704RD286-BIGCEDAR	1.00	NPNF04	
3H	Spotted knapweed	011704RD286-BIGCEDAR	2.00	NPNF04	
3H	Spotted knapweed	011704RD451-CEBI2	5.00	NPNF04	
3H	Spotted knapweed	011704SOUTHFORK-CG	5.00	NPNF04	
3H	Spotted knapweed	011704WICKIUP-TRAILHEAD	2.00	NPNF04	
3H	Spotted knapweed	011705DITCH-CR-CAMP	0.50	NPNF05	
3H	Spotted knapweed	011705RD1199-SWEENYHILL	0.10	NPNF05	
3H	Spotted knapweed	011705RD222-REDRIVER	1.50	NPNF05	
3H	Spotted knapweed	011705RD222-REDRIVER	1.75	NPNF05	
3H	Spotted knapweed	011705RD222REDRIVER-CEBI2-02	2.75	NPNF05	
3H	Spotted knapweed	011705RD233-CROOKEDRIVER	0.50	NPNF05	
3H	Spotted knapweed	011705RD233-CROOKEDRIVER	1.25	NPNF05	

3H	Spotted knapweed	011705RD233-CROOKEDRIVER	1.75	NPNF05
3H	Spotted knapweed	011705RD233-CROOKEDRIVER	2.00	NPNF05
3H	Spotted knapweed	011705RD234RRHOTSPR	0.50	NPNF05
3H	Spotted knapweed	011705RD234RRHOTSPR	1.00	NPNF05
3H	Spotted knapweed	011705RD234RRHOTSPR	1.25	NPNF05
3H	Spotted knapweed	011705RD451CEBI2-01	0.30	NPNF05
3H	Spotted knapweed	011705RD451CEBI2-02	0.50	NPNF05
3H	Spotted knapweed	011705RD468	5.00	NPNF05
3H	Spotted knapweed	011705RD468	10.00	NPNF05
3H	Spotted knapweed	011706CCC-CG	2.00	NPNF06
3H	Spotted knapweed	011706GEDNEY-CR	1.00	NPNF06
3H	Spotted knapweed	011706GODDARD-PT	1.00	NPNF06
3H	Spotted knapweed	011706JOHNSON_BAR	5.00	NPNF06
3H	Spotted knapweed	011706-OHARA-CG	0.50	NPNF06
3H	Spotted knapweed	011706-OHARA-CG	5.00	NPNF06
3H	Spotted knapweed	011706PETERSON-PT-RD	5.00	NPNF06
3H	Spotted knapweed	011706RACE_CR	1.00	NPNF06
3H	Spotted knapweed	011706RACKLIFF	2.00	NPNF06
3H	Spotted knapweed	011706RD1119A-FLYINGHAWK	3.00	NPNF06
3H	Spotted knapweed	011706RD1121GODDARD-PT	5.00	NPNF06
3H	Spotted knapweed	011706RD1129CROWS-FOOT	3.00	NPNF06
3H	Spotted knapweed	011706RD290-INDIANHILL	2.00	NPNF06
3H	Spotted knapweed	011706RD290-INDIANHILL	3.00	NPNF06
3H	Spotted knapweed	011706RD319FOGMTN	2.00	NPNF06
3H	Spotted knapweed	011706RD319FOGMTN	3.00	NPNF06
3H	Spotted knapweed	011706RD443FALLSPT	1.00	NPNF06
3H	Spotted knapweed	011706RD470SWIFTWATER	7.00	NPNF06
3H	Spotted knapweed	011706RD651HAMBY	12.00	NPNF06
3H	Spotted knapweed	011706RD9723-ELKARD	3.00	NPNF06
3H	Spotted knapweed	011706SELWAYFALLS-CG	5.00	NPNF06
3H	Spotted knapweed	011706SLIDECR-CG	2.00	NPNF06
3H	Spotted knapweed	011706SLIMS -CG	3.00	NPNF06
3H	Spotted knapweed	011706SWIFTWATER_BL	1.00	NPNF06
3H	Spotted knapweed	011706TR4SELWAY	1.50	NPNF06
3H	Spotted knapweed	011706TR702RACKLIFF	1.00	NPNF06
3H	Spotted knapweed	011706TR704GLOVER	0.50	NPNF06
3H	Spotted knapweed	011706TR734CCC	0.25	NPNF06

3M	Everlasting peavine	011706CEDAR-FLATS	5.00	NPNF06
3M	Everlasting peavine	011706FENN-RS1	5.00	NPNF06
3M	Everlasting peavine	011706FENN-RS2	3.00	NPNF06
3M	Everlasting peavine	011706FENN-RS4	5.00	NPNF06
3M	Spotted knapweed	011704BLACKTAIL-BUTTE-END	0.25	NPNF04

Planned Treatment of Widespread Weeds in Key Areas: The following table specifies the management actions planned for 2006 for widespread, established weeds along established control lines that assist in containing the spread of specific weeds.

Table 4: Control lines of established Infestations

Priority	Weed	Site	Acres	Owner	Field Notes
4H	General Weeds	011704RD244-LIGHTNING-CR	6.50	NPNF04	
4H	General Weeds	011704RD279-COVE	13.00	NPNF04	
4H	General Weeds	011705RD1199-SWEENYHILL	0.50	NPNF05	
4H	General Weeds	011705RD1854-AMERICANRIVER	0.10	NPNF05	
4H	General Weeds	011705RD222REDRIVER-SF	1.20	NPNF05	
4H	General Weeds	011705RD222REDRIVER-SF	1.50	NPNF05	
4H	General Weeds	011705RD222REDRIVER-SF	2.40	NPNF05	
	Plumeless thistle	?	?	?	
	Italian thistle	?	?	?	
	WhiteTop	?	?	?	
	Bur Chevil	?	?	?	
	Poison Hemlock	?	?	?	

Planned Treatment to Contain and/or Reduce Density of Established Infestations:

Bio-control releases in key areas and treatment along containment lines in the upper drainages will be used to reduce densities and contain specific widespread weeds. Weeds that lack specific information on extent and invasiveness will be treated with a containment strategy until an inventory or assessment is completed. Organized collection days for bio-control agents may need to be planned for knapweed and starthistle insects.

Objective 5: Reduce Densities and slow spread

Priority	Weed	Location	Area	Lead	Field Notes
5H	Spotted Knapweed	Selway Bitterroot Wilderness	500	Nez Perce NF NPBC	Agapeta, Cyphocleonus and Larinus. (100 releases)

2. EDUCATION-AWARENESS ACTIVITIES

<i>Description</i>	<i>Lead Responsibility</i>
Hunter Patrol Wilderness Rangers	NPNF
Packers/Outfitter	NPNF/CNF
CONTACT ATV CLUBS (PATHFINDER, HIGH MTN TRAIL MACHINE)	NPNF/CNF
Establish Road Sign for Weed free hay at Paradise and Lost Horse	NPNF
Public Contacts during hunting season @ Elk Summit	Back Country Horseman
Presentation to Road obliteration/watershed restoration Group.	Clearwater NF

3. PREVENTION PRACTICES

<i>Description</i>	<i>Lead Responsibility</i>
Admin. Weed Free Hay Program on NF	NPNF/CNF
Incorporate contract clauses for washing off road equipment under contracts.	NPNF/CNF
Gravel Pit mapping and treatment	All

4. INVENTORY AND EARLY ALERT EMPHASIS.

<i>Description</i>	<i>Lead Responsibility</i>
Selway Backcountry Trail System:	Back Country Horseman
Early Detection Survey;	Uof I, IDCO, NPNF, CNF
South Fork Breaklands Inventory	NPNF
Post Treatment Monitoring: Eradication	Uof I, IDCO, NPNF, CNF
McComas Meadow area	NPNF
Inventory and documentation of Japanese knotweed, Italian Thistle, Plumeless Thistle	All
New leafy Spurge south and east of Elk City	Idaho County

5. MONITORING

<i>Description</i>	<i>Lead Responsibility</i>
Monitoring effectiveness of an eradication process:	ALL
Spotted knapweed insect establishment at release sites.	NPNF and CNF
Vegetation response monitoring due to herbicide treatment.	NPNF and CNF

APPENDIX C — HERBICIDE DESCRIPTIONS

Additional information on the herbicides discussed below can be found in the project file.

Aminopyralid is the active ingredient in a new herbicide (Milestone) developed by Dow Agrosciences. Aminopyralid provides systemic postemergence control of susceptible broadleaf weeds including invasive and noxious weeds such as: spotted knapweed, oxeye daisy, sulfur cinquefoil, orange hawkweed, and yellow starthistle, to name a few.

Aminopyralid has an auxinic growth regulator mode of action, and has a low risk of resistance development. Aminopyralid is effective at lower applied rates than other currently registered herbicides (4 to 7 oz. /acre), and its residual action reduces the need for supplemental applications, lowering the overall herbicide load within a treatment area. Initial testing shows aminopyralid to be practically non-toxic to birds, fish, honeybees, earthworms, and aquatic invertebrates.

The bioconcentration factor (BCF) for aminopyralid is <1.0

2,4-D amine is a herbicide with very little persistence in the environment. 2,4-D has several formulations. Some of the common brand names include Weed-B-Gon, HiDep and Solution. This herbicide has low toxicity to aquatic species, and several formulations are approved for use in water and near water. At application rates of one to 1.5 pounds per acre, 2,4-D exhibits good control of knapweed with repeat applications and moderate control of St. Johnswort, Houndstongue, sulfur cinquefoil, and Canada thistle.

The Bioconcentration Factor (BCF) for 2,4-D amine is 2.2. BDF factors were obtained from Morris, et al., 1991.

Clopyralid is a relatively new herbicide that is very selective and is toxic to some members of only three plant families: the composites (*Compositae*), the legumes (*Fabaceae*), and the buckwheats (*Polygonaceae*). Clopyralid is the active

ingredient in products like Transline, Stinger and Forefront and one of two active ingredients in Curtail (the other is 2,4-D). At application rates of ¼ to ½ pound per acre, clopyralid is very effective against knapweed, the hawkweeds, and Canada thistle. However, it does not control any of the other weed species of concern. Clopyralid is more persistent than 2,4-D and dicamba, but less persistent than picloram.

The selective nature of clopyralid makes it an attractive alternative on sites with non-target species that are sensitive to the other herbicides. Clopyralid has soil-mobility characteristics comparable to picloram so the possibility of groundwater impacts must be addressed.

Dicamba (the active ingredient in Banville) is a broad-leaf herbicide that is readily absorbed by leaves and roots and is concentrated in the metabolically active parts of plants. Dicamba is effective against a similar range of weed species as 2,4-D at similar application rates. Dicamba is somewhat more persistent than 2,4-D and therefore provides somewhat longer control of susceptible species.

Glyphosate is a non-selective, broad spectrum herbicide that is absorbed by the leaves and translocated throughout the plant. The most common brand name for glyphosate is Roundup. Approved aquatic formulations for glyphosate are those without surfactants and labeled for such uses and include products like Rodeo, Accord, Aqua Neat, etc. Glyphosate has little soil activity, and its absorption by roots is minimal to non-existent. Due to its non-selectivity, glyphosate tends to eliminate both desirable and undesirable vegetation. Even if desirable vegetation is reseeded, hawkweed and other noxious weeds maintain their competitive advantage. A certain degree of selectivity can be achieved through the application method by using a wick applicator to "paint" the herbicide on target vegetation; thus avoiding desired plants. Glyphosate has merit for use where low soil mobility and short-term persistence are required to alleviate environmental concerns. Application rates for glyphosate for the targeted weeds are in the 1.5 pounds per acre range.

The BCF of glyphosate for trout is 0.11.

Metsulfuron methyl is used for control of annual and perennial broad-leaf weeds. Control areas include rights-of-way on roadsides and powerlines. The most commonly used formulation is Escort. Metsulfuron methyl can be mixed with other chemicals to provide more effective control. Metsulfuron methyl is broken down in soil by the action of microorganisms and by the chemical action of water. Application rate for the target weeds is 0.4 lb/acre.

Picloram (the active ingredient in Tordon 22K) controls a variety of broad-leaf weed species, including all of the weed species of concern. Picloram is generally applied at rates of one-quarter to two pounds per acre. However, picloram's combination of mobility and persistence has generated concern over possible groundwater contamination. Possible

environmental impacts are compared between this method and the other chemical and non-chemical control methods.

The BCF for picloram is 20.

Triclopyr is a selective herbicide used in a variety of vegetation management situations such as controlling weeds or controlling vegetation in powerline, railroad, pipeline, and road rights-of-way. Triclopyr-TEA (Garlon 3A) is an effective herbicide used to control brush in combination with foliar, basal bark, and cut-stump treatments. It is often mixed with other chemicals at varying rates to improve effectiveness and reduce the amount of herbicide applied. Triclopyr degrades rapidly in soil and water. The recommended application rate for the target weeds is 1.0 lb/acre.

The BCF for Triclopyr is 20.

Supplemental information to be included in the project file

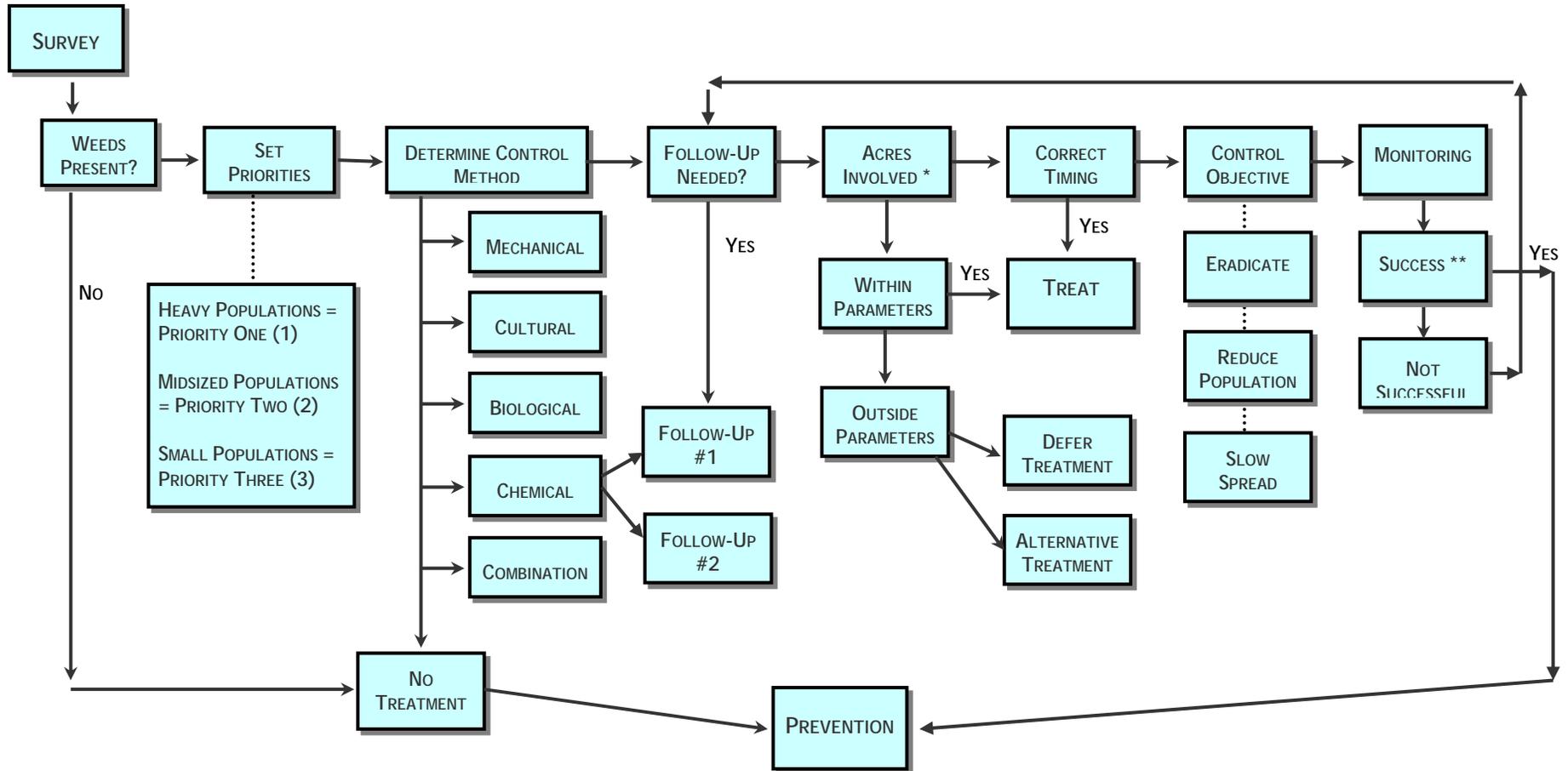
Information for the description of Aminopyralid came from the following:

MSDS Milestone Herbicide(007887), and Specimen Label, D02-879-001 (EPA accepted 08/10/05) accessed via: <http://www.dowagro.com/ivm/invasive/product.htm>

Pesticide Fact Sheet: Aminopyralid (Conditional Registration August 10, 2005) Accessed via: <http://www.epa.gov/oppord001/factsheets/aminopyralid.pdf>

Draft Supplemental Environmental Impact Statement, Roadside Pest Management Program Final Ecological and Human Health risk Assessment Prepared for the Texas Department of Transportation, February 2006 Accessed via: http://www.dot.state.tx.us/publications/maintenance/vol_2_app_b.pdf

APPENDIX D – ADAPTIVE STRATEGY FLOW CHART



This decision process will be used to determine treatment methods and their appropriate timing following noxious weed surveys for each site.

* Any proposed herbicide treatment on a given site must be evaluated to determine if the acres proposed for chemical application fall within the parameters for maximum acres treated as established by aquatics specialists.

** Measure of success will be based on objective of weed treatment (eradication or population reduction), infestation size, and percent occupancy of targeted weed species after treatment.

APPENDIX E - SPILL PLAN and HANDLING of HERBICIDES

Spill Plan:

Pesticide use, management, and coordination are covered in detail in **Forest Service Handbook (FSH) 2109.14 Pesticide-Use Management and Coordination Handbook**. Chapter 60 of the handbook provides direction for response activities in the event of a spill, incidents, or accidents involving pesticides. Personnel involved in herbicide application projects should review and follow direction in the 2109.14 handbook. It is available at Forest Service offices and on-line at Forest Service websites.

A hazardous materials emergency or spill is defined as any release or threat of a release of a hazardous substance or petroleum product that presents an imminent and substantial risk or injury to health or the environment.

The best approach to pesticide spills is prevention. Spill occurrences can be prevented or minimized by good pesticide storage, careful transportation, and safe, responsible handling practices. Material Safety Data Sheets should be available and reviewed by all personnel involved in pesticide handling. MSD Sheets together with pesticide labels will provide valuable information about risks, hazards, and handling precautions for pesticides being used.

Despite good procedures and equipment, pesticide spills can occur. Appropriate care of any injured individuals should be first priority, including washing or decontaminating any affected personnel. Additional steps to follow in the event of a spill of any hazardous chemical can be summarized under the "Three C" program. Where possible, on-scene personnel must **CONTROL** spillage, **CONTAIN** the spill, and **CLEAN UP** the spill.

Spillage CONTROL

Immediate steps should be taken to **control** the flow of spilling material. Actions might include plugging or sealing a leaking container, righting or repositioning an overturned tank, placing a leaking container in a larger one, placing a torn bag in a larger plastic one, etc.

Caution should be exercised to avoid exposure to a leaking chemical. Appropriate PPE should be available and donned prior to attempting to control leaks.

The area immediately surrounding the spill should be secured, roped off, or signed if necessary to keep people without proper PPE at least 30 feet away. Care should be exercised to avoid drift or fumes that may be released from leaking pesticides. Someone should remain on scene at the spill site continuously until cleanup is completed.

Spill CONTAINMENT

Concurrent with control of the flow of material from the source, efforts should be made to contain spilled or spilling material to as small an area as possible. Use hand tools or perhaps even heavy equipment to construct appropriate berms or dikes to keep the material from spreading. Liquid spills can be further contained as well as absorbed by use of kitty litter or absorbent pads. Containment of dry pesticide spills can be accomplished by covering the spill with a secured plastic tarpaulin and/or lightly misting the material with water. Wherever possible, do not allow spilled material to enter a body of water no matter how small the spill. If spilled material is flowing, dig a ditch or redirect the spill flow as necessary to avoid contamination of water sources.

If a water source is contaminated, contacts should include Idaho Division of Environmental Quality. Downstream users should also be notified as soon as possible. Baled straw can be used to dam/confine the contaminated water and direct clean water around the spill where possible.

The Forest Service and its employee(s) that first has knowledge of a release or spill and is capable of appreciating the significance of that spill is the "person in charge" in terms of being responsible for all reporting to appropriate individuals or agencies.

Notification of authorities or agencies that either require notification or that can render assistance should be accomplished as soon as possible and as appropriate in the control/containment priorities. Severity and extent of the spill will dictate degree of notification.

Minimum contacts for concentrate spills **up to 5 gallons** (other than minor leaks or minimal spills) should include:

- Grangeville Dispatch @ 208-983-4060
- Clearwater Forest Hazardous Materials Coordinator @ 208-476-4541
- District Ranger (Lochsa) @ 208-926-4274
- District Ranger (Powell) @ 208-942-3113
- Forest Administrative Officer @ 208-476-4541
- Department. of Health and Welfare @ 208-334-5879
- R-1 Pesticide Coordinator @ 801-625-5258

Additional contacts for extensive spills of **greater than 5 gallons** of concentrate should include:

- Clearwater County Sheriff @ 208-476-4521
- Idaho County Sheriff @ 208-983-1100
- Idaho Emergency Response Commission @ 800-632-8000
- Chemical Transportation Emergency Center (CHEMTREC) @ 800-424-9300

For spills involving contamination of a surface water source contacts should include:

- Regional Office of Idaho Division of Environmental Quality @ 208-799-4370
- U.S. Environmental Protection Agency @ 800-424-8802

Spill CLEAN UP

Use appropriate clean-up procedures to remove the hazardous materials from the site. When pesticides release toxic fumes, vapors, or dust, it is essential to work in a well-ventilated area and/or with approved respirators where necessary.

For clean up of liquid pesticide spills only, spread appropriate absorbent material over the contaminated area and keep adding absorbent material until the spilled liquid is fully assimilated. Use only enough absorbent material to absorb the spill. After 2 hours of absorption, spread additional absorbent material around the perimeter of the spill area. Gather all the old and new absorbent by sweeping it towards the center of the contaminated area and placing it in heavy-duty, leak-proof plastic bags, drums, or other suitable leak-proof containers using a broom and dustpan or shovel. Seal all bags and containers properly and label legibly. Dispose of contents properly in accordance to the state regulations on hazardous waste disposal.

Do not hose down the area with water. The spill material will be diluted and possibly dispersed to a wider area but not removed, and thus the site will remain contaminated.

To effectively decontaminate the ground in a spill area, remove heavily contaminated soil to a depth of at least 2 inches below the contamination zone and place in drums for proper disposal. Following removal of the contaminated soil, the area should be covered with at least 2 inches of lime and a final covering of fresh topsoil. It is essential to properly dispose of any contaminated soil removed from the site.

For cleanup of dry pesticide spills, sweep or shovel the material and any associated contaminated soil into a plastic bag or recovery container. Seal all bags and containers properly and label legibly. In accordance with the state regulations on hazardous waste disposal, properly dispose of, or where possible, reuse the recovered pesticide.

For disposal of contaminated material contact:

- Environsafe Services of Idaho, Inc.; Grandview, ID; 800-727-9969

Decontamination

All personnel should decontaminate themselves as soon as possible with detergent and significant quantities of water.

Small amounts of residual pesticide remaining on road surfaces, floors, vehicles, tools, etc. will require decontamination.

To clean equipment and vehicles, use a chlorine bleach-alkaline detergent (dishwasher soap) solution to clean equipment and vehicles. Rinse with a sparing amount of water. Collect wash water for disposal or clean the vehicles and equipment in an area where the washings will not contaminate water sources or vegetation.

Porous material and equipment such as brooms, leather shoes, and cloth hats cannot be effectively decontaminated and should be disposed of properly. Do not save disposable garments, gloves, or other clothing that is badly contaminated. Dispose of those items properly. Mildly contaminated clothing should be washed separately from other household laundry, using a strong detergent.

Recommended Spill Kit Contents

- Neoprene gloves
- Goggles
- Rubber or neoprene boots
- Disposable chemically resistant coveralls
- Duct tape
- Dust pan
- Broom
- Heavy plastic bags with ties
- Liquid detergent
- Plastic tarp
- Tags or labels
- 10 to 30 lbs. of absorbent material
- Portable eyewash station
- Shovel
- Washtub or other containment vessel
- Flagging

Summary Action Guide

Actions – Individual on Scene	Contacts
Do not expose yourself or others to hazardous or unknown materials. If there is any question that incident or situation is a threat to personal safety, limit response to public warning and reporting. Specific on-scene steps to take: Don appropriate PPE. Avoid skin contact with hazardous or unknown materials. Avoid inhaling fumes or vapors. Remove ignition sources, do not smoke.	Self, coworkers, bystanders
Where possible, control spillage.	Self, coworkers
Where possible, confine spill.	Self, coworkers
Report incident or release and request necessary resources.	District dispatch

Actions – District Dispatch	Contacts
Insure reporting individual is aware of potential hazards associated with incident or release. If there is any question that situation is a threat to personnel, limit response to public warning and reporting.	Reporting party
Obtain information about the release: - Location of release - Material involved - Quantity involved, actual and potential release quantities - Spill status – ongoing or stabilized - Watercourse(s) involved	Reporting party
Dispatch Requested Resources	self
Review Spill Response Plan	self
Notification (adjust relative to magnitude and specifics of spill as per Spill Response Plan and reporting party's direction)	Grangeville Dispatch, District Ranger

Actions – Grangeville Dispatch	Contacts
Notification – spill of up to 5 gallons of concentrate	Forest hazmat coord. Forest admin officer R-1 pesticide coord.
Additional Notification – spill of greater than 5 gallons of concentrate (Forest hazmat coordinator will determine extent of emergency and appropriate notification.)	Clw sheriff; IdSseriff Id emerg resp. comm. CHEMTREC
Additional Notification – watercourse contamination	Idaho DEQ US EPA
Relay Information/direction from notified parties back to District dispatch or reporting party as needed.	District Reporting party

Hazardous Materials Release Form

Name: _____ Date: _____ Time: _____

Date of release: _____

Time of release: _____

Duration of release: _____

Location of release: _____

Number and type of injuries: _____

Chemical released

Common name: _____

Trade name: _____

Active ingredient: _____

EPA registration no. _____

Estimated quantity released: _____

Estimated quantity reaching watercourse: _____

Name of affected watercourse: _____

Source and cause of release: _____

Known health risks: _____

Potential threat to health or environment: _____

Additional remarks: _____

Handling of Herbicides:

The following information will be reviewed and be available to all personnel involved in handling of herbicides:

- The herbicide label and applicable Material Safety Data Sheets (MSDS).
- From the EPA guide, "*Applying Pesticides Correctly: A Guide for Private and Commercial Applicators*," the section entitled "Clean Up of Pesticide Spills." (See project file.)
- From the Northern Region Emergency and Disaster Plan, the section entitled "*Hazardous Materials Releases and Oil Spills*." (See project file.)
- Idaho Pesticide Applicators Training Manual (2002)

Emergency response numbers for herbicide spills:

CHEMTREC (800) 424-9300

Idaho Emergency Response Division (800) 632-8000

Procedures for Mixing, Loading, and Disposing of Herbicides

1. All mixing of herbicides will occur at least 100 feet from surface waters or well heads.
2. Dilution water will be added to the spray container prior to addition of the spray concentrate.
3. All hoses used to add dilution water to spray containers will be equipped with a device to prevent back-siphoning.
4. Applicators will mix only those quantities of herbicides that can be reasonably used in a day.
5. During mixing, mixers will wear goggles or face shield, rubber gloves, rubber boots, and protective overalls or apron.
6. All empty containers will be triple-rinsed and the rinsate disposed of by spraying near the application site at rates that do not exceed those on the spray site.
7. All unused herbicide will be stored in a locked building in accordance with herbicide storage regulations contained in Forest Service Handbook 2109.13.
8. All empty and rinsed herbicide containers will be punctured and either disposed of in a sanitary landfill or recycled through an approved container recycling program such as CROP, a joint venture between ISDA and the agricultural chemical industry.
9. Empty and rinsed containers being held for recycling must be stored in an approved herbicide storage area and be labeled with the date triple-rinsing was completed.

APPENDIX F — HERBICIDE APPLICATION GUIDELINES

General Application

- Apply herbicide only when wind speeds are less than 6 miles per hour or as specified on the label.
- Do not apply herbicide if precipitation is expected within 4 to 6 hours.
- All registered herbicide application will be performed or directly supervised by a state licensed application.
- Post all treatment areas of special public concern with signs prior to treatment and immediately following treatment. Such areas include mushroom and huckleberry picking areas, trailheads, campsites, and other high use areas.
- Do not use picloram where there are coarse, sandy soils. Use of picloram would be allowed only once every two years, to reduce accumulation in the soil. Reduce application rate to a maximum of 1.0 pound/acre of Picloram with spot treatment of no more than 50% of an acre (USDI-EPA 1995a).
- No application 2,4 -D amine (ester formulation) or triclopyr-BEE is allowed.
- Limited annually application of herbicide chemicals to below the Lethal Concentration (LC₅₀), or No Observed Effect Level/Concentration (NOEL/NOEC) as determined by watershed (Table 13).
- To prevent potential effects on Threatened, Endangered or Sensitive (TES) plants the following TES Plant restrictions would apply. Distances are to any known TES plant occurrence (Appendix I).
 - ❖ < 25 feet - No chemical spraying. Only mechanical treatment.
 - ❖ 25-50 feet - Only backpack chemical spraying with focused spraying of target species. Mechanical treatments allowed.
 - ❖ 50 Feet - All methods of chemical or mechanical allowed. Vehicle-based spraying devices allowed.

RHCA Restrictions

Distance from live water	Application Activity
0 feet	Chemicals will not be used over water, including water standing or running in ditchlines.
<15 feet	Chemicals will not be used over water. Spot spraying of individual plants with aquatically approved chemicals (glyphosate products without surfactant).
15 – 100 feet	Focused spraying of target species - may include area spraying when weed populations warrant (large patches of weeds, multiple patches in close proximity) Mixtures of chemicals may be used including those listed above and: clopyralid, aminopyralid, glyphosate products with surfactant, dicamba, 2,4 - D amine, triclopyr-TEA.
>100 feet	All appropriate ground application methods - includes spot spraying, focused spraying, or broadcast spraying as weed population warrant. All chemicals listed above as well as picloram.
All distances	Reseed with native mix or mix which will help prevent invasion of weeds (certified weed free)

Conifer Plantations

- Use mechanical control, hand spray of herbicides or hand spray with power equipment. Do not use power boom equipment.
- Do not use picloram. Depending on conditions, clopyralid or clopyralid combined with 2,4D are preferred.

APPENDIX G — WEED SPECIES CHARACTERISTICS

WEED SPECIES	FAMILY	PLACE OF ORIGIN	LIFE CYCLE	MODES OF REPRODUCTION	BIO-CONTROL AGENTS	CHEMICAL AGENTS	CULTURAL METHODS	MECHANICAL METHODS
St Johns-wort (<i>Hypericum perforatum</i>)	Clusiaceae	Southern Europe	Perennial	Seeds New shoots from shallow radiating roots	Defoliating beetle (<i>Chrysolina quadrigemina</i>) Root Boring Beetle (<i>Agrilus hyperici</i>) Leaf and flower moth (<i>Aplocera plagiata</i>)	2,4-D metsulfuron methyl picloram + 2,4-D	Revegetation for shade Regular cultivation	Hand pulling must remove all roots
Meadow hawkweed (<i>Hieracium pretense</i>)	Asteraceae	North-central Europe Eastern Europe	Perennial	Seeds, stolons, rhizomes	None currently available	2,4-D + picloram glyphosate aminopyralid clopyralid clopyralid + triclopyr clopyralid + 2,4-D dicamba + 2,4-D	Revegetation for shade Seeding & fertilization Annual cultivation	Hand pulling not recommended (stimulates sprouting from rhizomes) Must remove all roots
Orange hawkweed (<i>Hieracium aurantiacum</i>)	Asteraceae	North-central Europe Eastern Europe	Perennial	Seeds, stolons, rhizomes	None currently available	2,4-D + picloram glyphosate aminopyralid clopyralid clopyralid + 2,4-D clopyralid + triclopyr dicamba + 2,4-D	Revegetation for shade Seeding & fertilization	Hand pulling not recommended (stimulates sprouting from rhizomes) Must remove all roots
Houndstongue (<i>Cynoglossum officinale</i>)	Boraginaceae	Europe	Biennial	Abundant seed production	None currently available	picloram metsulfuron methyl	None recommended	Hand pulling before seed production Cutting plants at soil surface reduces seed production in regrowth
Diffuse knapweed (<i>Centaurea diffusa</i>)	Asteraceae	Eurasia	Biennial or short-lived perennial	Abundant seed production	Seed head gall fly (<i>Urophora affinis</i>) Seed head weevil (<i>Larinus minutus, L. obtusus</i>) Seed head gall fly (<i>Urophora quadrifasciata</i>) Peacock fly (<i>Chaetorellia</i>)	glyphosate picloram 2,4-D aminopyralid clopyralid clopyralid + triclopyr	Revegetation for shade Spring burning	Hand pulling of small infestations (usually takes 7-10 years)

WEED SPECIES	FAMILY	PLACE OF ORIGIN	LIFE CYCLE	MODES OF REPRODUCTION	BIO-CONTROL AGENTS	CHEMICAL AGENTS	CULTURAL METHODS	MECHANICAL METHODS
					<i>acrolophi</i> Seed head weevil (<i>Bangasternus fausti</i>) Root weevil (<i>Cyphocleonus achates</i>) Root boring moth (<i>Agapeta zoegana</i>)	clopyralid + 2,4-D dicamba		
Spotted knapweed (<i>Centaurea maculosa</i>)	Asteraceae	Eurasia	Biennial or short-lived Perennial	Seeds, lateral shoots	Seed head gall fly (<i>Urophora affinis</i>) Seed head weevil (<i>Larinus minutus</i> , <i>L. obtusus</i>) Seed head gall fly (<i>Urophora quadrifasciata</i>) Seed head moth (<i>Metzneria paucipunctella</i>) Black leaf blight fungus (<i>Alternaria alternata</i>) Root weevil (<i>Cyphocleonus achates</i>) Verdant seed fly (<i>Terellia virens</i>) Root moth (<i>Agapeta zoegana</i>)	glyphosate picloram 2,4-D aminopyralid clopyralid clopyralid + 2,4-D dicamba triclopyr + choppyralid	Revegetation for shade Regular cultivation/seeding Spring burning	Hand pulling of small infestations (usually takes 7-10 years)
Meadow knapweed (<i>Centaurea pratensis</i>)	Asteraceae	Eurasia	Biennial or short-lived Perennial	Seeds, lateral shoots	Seed head gall fly (<i>Urophora quadrifasciata</i>)	glyphosate picloram 2,4-D aminopyralid clopyralid clopyralid + triclopyr clopyralid + 2,4-D dicamba		
Russian knapweed (<i>Cenuarea repens</i>)	Asteraceae	Eurasia	Perennial	Seeds, lateral shoots	Stem/leaf gall nematode (<i>Subanquina picridis</i>)	glyphosate picloram 2,4-D aminopyralid clopyralid clopyralid + 2,4-D		

WEED SPECIES	FAMILY	PLACE OF ORIGIN	LIFE CYCLE	MODES OF REPRODUCTION	BIO-CONTROL AGENTS	CHEMICAL AGENTS	CULTURAL METHODS	MECHANICAL METHODS
						triclopyr + chopryalid dicamba		
Ox-eye daisy (<i>Chrysanthemum leucanthemum</i>)	Asteraceae	Eurasia	Perennial	Seeds, rhizomes	None currently available	2,4-D aminopyralid clopyralid clopyralid + 2,4-D	Revegetation for shade	Burning before flowering Hand pulling not recommended (regrowth from rhizomes)
Tansy ragwort (<i>Senecio jacobaea</i>)	Asteraceae	Europe, Asia	Biennial or short-lived	Seeds, regrows from roots	Cinnabar moth (<i>Tyria jacobaea</i>) Ragwort Seed fly (<i>Botanophila seneciella</i>) Ragwort flea beetle (<i>Longitarsus jacobaeae</i>)	2,4-D picloram aminopyralid dicamba 2,4-D + dicamba triclopyr + 2,4-D metsulfuron methyl	Not recommended	Hand pulling small infestations before flowering (must remove all roots) Mowing to reduce seed production Grazing with sheep
Purple loosestrife (<i>Lythrum salicaria</i>)	Lythraceae	Europe, Asia, North Africa	Perennial	Seeds, rhizomes	Black-margined beetle (<i>Galerucella callmariensis</i>) Golden beetle (<i>Galerucella pullisa</i>) Loosestrife flower weevil (<i>Nanophyes marmoratus</i>) Loosestrife root mining weevil (<i>Hylobius transversovittatus</i>)	glyphosate glyphosate + 2,4-D triclopyr metsulfuron methyl	Not recommended	Hand pulling only small infestations (must remove all roots) Cut below water 3 consecutive years
Rush skeletonweed (<i>Chondrilla juncea</i>)	Asteraceae	Eurasia, North Africa	Perennial	Seeds, lateral roots and root fragments	Gall midge (<i>Cystiphora schmidtii</i>) Gall mite (<i>Eriophyes chondrillae</i>) Rush skeletonweed rust (<i>Puccinia chondrillina</i>)	2,4-D picloram aminopyralid clopyralid clopyralid + dicamba	Cultivation not recommended (increases growth from roots) Seeding & fertilizing with nitrogen	Hand pulling must remove all roots (3-6 times per year for 6-10 years to eradicate new shoots and seedlings) Mowing not recommended
Sulfur cinquefoil (<i>Potentilla recta</i>)	Rosaceae	Eurasia	Perennial	Seeds	None currently available	2,4-D + dicamba picloram 2,4-D	Regular cultivation	Hand pulling of small infestations (must remove root crown) Mowing not recommended

WEED SPECIES	FAMILY	PLACE OF ORIGIN	LIFE CYCLE	MODES OF REPRODUCTION	BIO-CONTROL AGENTS	CHEMICAL AGENTS	CULTURAL METHODS	MECHANICAL METHODS
Leafy spurge (<i>Euphorbia esula</i>)	Euphorbiaceae	Eurasia	Perennial	Seeds, spreading roots	Flea beetles (<i>Aphthona abdominalis</i> , <i>A. cyparissiae</i> , <i>A. czwalinae</i> , <i>A. flava</i> , <i>A. nigriscutis</i>) Red-headed spurge stem borer (<i>Obera erythrocephala</i>) Spurge clearwing moth (<i>Chamaesphecia hungarica</i>) Hawk moth (<i>Hyles euphorbiae</i>)	dicamba picloram glyphosate glyphosate + 2,4-D picloram + 2,4-D	Cultivation every 14 days Seeding w/ sod-forming perennials Fall burning	Mowing/cutting before flowering Hand pulling of small infestations before seed production Grazing with sheep or goats
Yellow starthistle (<i>Centaurea solstitialis</i>)	Asteraceae	Southern Europe	Winter Annual or Biennial	Seeds	Starthistle bud weevil (<i>Bangasternus orientalis</i>) Peacock fly (<i>Chaetorellia australis</i>) Flower weevil (<i>Larinus curtus</i>) Starthistle hairy weevil (<i>Eustenopus villosus</i>) Starthistle gallfly (<i>Urophora sirunaseva</i>)	picloram aminopyralid clopyralid triclopyr + clopyralid 2,4-D amine + clopyralid	Toxic to horses Revegetation for shade	Mowing, burning early in flower (timing is critical) Hard to control seed bank with mechanical methods Grazing before spine production
Common tansy (<i>Tanacetum vulgare</i>)	Asteraceae	Europe	Perennial	Seeds, rhizomes	None currently available	dicamba + picloram metsulfuron methyl aminopyralid glyphosate	Revegetation for shade Regular cultivation	Hand pulling not recommended (stimulates sprouting from rhizomes) Must remove all roots Mowing to reduce seed production
Bull thistle (<i>Cirsium vulgare</i>)	Asteraceae	Eurasia	Biennial	Seeds	Gall fly (<i>Urophora stylata</i>)	picloram	Revegetation for shade	None recommended
Canada thistle (<i>Cirsium arvense</i>)	Asteraceae	Eurasia	Perennial	Seeds, shoots from lateral roots	Stem weevil (<i>Ceutorhyncus litura</i>) Gall fly (<i>Urophora cardui</i>) Shoot fungus (<i>Sclerotinia sclerotiorum</i>)	2,4-D clopyralid + 2,4-D aminopyralid clopyralid glyphosate dicamba	Revegetation for shade Cultivation not recommended	Removing flowers to prevent seed production
Musk thistle (<i>Carduus</i>)	Asteraceae	Southern Europe	Biennial or Winter	Seeds	Thistle head weevil (<i>Rhinocyllus conicus</i>)	2,4-D	Revegetation for shade	Mowing before flowering

WEED SPECIES	FAMILY	PLACE OF ORIGIN	LIFE CYCLE	MODES OF REPRODUCTION	BIO-CONTROL AGENTS	CHEMICAL AGENTS	CULTURAL METHODS	MECHANICAL METHODS
<i>nutans</i>)		Western Asia	Annual		Thistle rosette weevil (<i>Trichosirocalus horridus</i>)	dicamba picloram metsulfuron methyl aminopyralid clopyralid triclopyr + clopyralid 2,4-D amine + clopyralid glyphosate + 2,4-D		Cutting plant below crown
Scotch thistle (<i>Onopordon acanthium</i>)	Asteraceae	Eurasia	Biennial	Seeds	None available	dicamba picloram triclopyr + clopyralid clopyralid + 2.4-D clopyralid 2,4-D glyphosate + 2,4-D metsulfuron methyl	Revegetation for shade	Mowing before flowering Cutting plant below crown
Dalmatian toadflax (<i>Linaria genistifolia</i> ssp. <i>Dalmatica</i>)	Scrophulariaceae	Southeastern Europe Western Asia	Perennial	Seeds, vegetative growth from lateral root buds	Toadflax moth (<i>Calophasia runula</i>) Stem-boring weevil (<i>Mecinus janthinus</i>)	dicamba picloram chlorosulfuron picloram + chlorosulfuron	Regular cultivation	Cutting plant below crown (annually, 10-15 years to eradicate)
Yellow toadflax (<i>Linaria vulgaris</i>)	Scrophulariaceae	Southeastern Europe Western Asia	Perennial	Seeds and roots	Flower beetle (<i>Brachypterolus pulicarius</i>) Defoliating moth (<i>Calophasia linula</i>) Seed head weevil (<i>Gymnaetron antirrhini</i>) Stem-boring weevil (<i>Mecinus janthinus</i>) Toadflax seed weevil (<i>Rhinusa antirrhini</i>)	dicamba picloram picloram + 2,4-D picloram + chlorosulfuron picloram + metasulfuron chlorosulfuron	Regular cultivation	Cutting plant below crown (annually, 10-15 years to eradicate)

WEED SPECIES	FAMILY	PLACE OF ORIGIN	LIFE CYCLE	MODES OF REPRODUCTION	BIO-CONTROL AGENTS	CHEMICAL AGENTS	CULTURAL METHODS	MECHANICAL METHODS
Common Crupina (<i>Crupina vulgaris</i>)	Asteraceae	Mediterranean region	Winter annual	Seeds	None available	picloram picloram + 2,4-D dicamba clopyralid 2,4-D		
Common Mullein (<i>Verbascum thapsus</i>)	Scrophulariaceae	Eurasia	Biennial	Seeds	None available	2,4-D		
Common Teasel (<i>Dipsacus fullonum</i>)	Dipsacaceae	Europe	Biennial	Seeds	None available	2,4-D amine 2,4-D amine + dicamba		
White Top (<i>Cardaria draba</i>)	Brassicaceae	Native	Perennial	Seeds	None available	2,4-D amine metsulfuron		
Japanese Knotweed (<i>Polygonum cuspidatum</i>)	Polygonaceae	Asia			None available	dicamba glyphosate		
Common Chickory (<i>Chichorium intybus</i>)	Asteraceae	Mediterranean	Perennial	Seeds	None available	2,4-D	Regular cultivation	
Creeping Buttercup (<i>Ranunculus repens</i>)					None available	2,4-D dicamba		
Nightshade (<i>Solanum dulcumara</i>)	Solanaceae					2,4-D dicamba + 2,4-D		

Information in this table compiled from Whitson et al. 1992; Rees et al. 1996; and William et al. 1997.

APPENDIX H - DETERMINATION OF PREDICTED SUCCESS RATES FOR ALTERNATIVES 1, 2, AND 3

Effectiveness of the action alternatives was determined using the following assumptions, based on available information on weed treatment methods for target species, results of Bonners Ferry and Priest Lake Ranger Districts of the Idaho Panhandle National Forests' weed control efforts, and the professional judgment of county weed coordinators and other agency professionals.

Alternatives 1 & 2

Biological Control: Where biological control alone, or where biological and mechanical control combined were proposed, the effectiveness was estimated to be 40-60%.

Mechanical Control: On sites with orange and meadow hawkweed, sulfur cinquefoil, common tansy, and other species for which mechanical control is generally not effective, control was not anticipated. On other sites with very small infestations of St. Johns-wort or knapweed, control was predicted to be effective. Where mechanical control was proposed, it was considered the most feasible of the control methods available *under this alternative*. However, it was often proposed where effective control is difficult to achieve due to the need for repeated treatments and the aggressive response of some weed species. Therefore, overall success was predicted at 10% per year.

Cultural Control: On sites where cultural control alone was recommended, minimal success was predicted - the nature of the sites is such that other methods, while possibly more effective at controlling weeds, may or may be economically infeasible. Cultural control alone was not predicted to be effective over the life of the EA (approximately ten years), but may offer some long-term effectiveness (i.e. shading the site to eventually reduce habitat suitability for the weeds). For these sites, treatment options remain open to those available under this alternative.

Chemical Control: This method is only being used on administrative locations and ITD spraying along US Highway 12 for these alternatives. On these sites, the effectiveness was predicted to be about 50-70%

Overall, success of Alternative 1 was predicted to be about 38% of proposed treatment areas, while Alternative 2 was predicted to be 40% successful.

Alternative 3

Biological Control: Where this method alone was proposed, the effectiveness was predicted to be 40-60%. Where it was proposed in conjunction with herbicide use, the effectiveness was predicted at 75%. Timing of herbicide treatment and biological control can greatly increase the chance of control.

Mechanical Control: Under this Alternative, mechanical control was selected only where it was anticipated that good control could be achieved over the life of the EA. This method was not selected for orange or meadow hawkweed, common tansy, sulfur cinquefoil or other weed species for which it either is not effective or causes aggressive re-sprouting of the weed species. Therefore, 30% control per year was predicted for this method under this alternative.

Chemical Control: Most chemical control was selected for smaller infestations, and would likely produce 100% control in many sites. On other sites, such as heavily infested road prisms, the effectiveness was predicted to be less, about 50-70%.

Cultural Control: On sites where cultural control alone was recommended, minimal success was predicted - the nature of the sites is such that other methods, while possibly more effective at controlling the weeds, may not be acceptable from a resource standpoint, or may not be economically feasible. It was not predicted to be effective over the life of the EA, but may offer some long-term effectiveness (i.e. shading the sited to reduce habitat suitability for the weeds). For those sites, treatment options remain open to those available under this alternative.

Overall success of this Alternative was predicted to be about 60-70%.

APPENDIX I – DETERMINATION OF MAXIMUM ACRES ANNUALLY TREATABLE

Table 1. Maximum Annual Sprayable Acreage Using Each Herbicide with No Observable Effect (or equivalent).

					Aminopyralid	Clopyralid	Dicamba	Glyphosate products without surfactants	Glyphosate products with surfactants	Methsulfuron Methyl	Picloram	Triclopyr TEA	2,4-D
Chemical Application Rate (pounds/acre)					0.1	0.5	1.5	1.5	1.5	0.4	1.0	0.4	1.0
Median Lethal Concentration (LC50 - ppm)					>100	103	135	923	22	150	0.8-26	199	240
Median Lethal Concentration/20 (LC50/20 - ppm) or <i>NOEL</i> or <i>NOEC</i> (ppm)					5	20	6.8	46.2	1.1	7.5	0.29	104	10
Subbasin	Major Subbasin	Watershed Name	Watershed Acres	Known Concentrations of Noxious Weeds (acres)	Maximum Acres that could be treated without Lethal Effects								
Lochsa River 17060303	Crooked Fork Creek	Upper Crooked Fork Creek	19,481	403.90	19,184	15,347	1,727	11,804	281	7,194	111	99,755	9,592
		Boulder Creek (North)	16,018	205.80	15,415	12,332	1,387	9,486	226	5,781	89	80,159	7,708
		Lower Crooked Fork Creek	21,122	2,359.10	14,982	11,986	1,348	9,219	220	5,618	87	77,908	7,491
		Upper Brushy Fork Creek	10,261	394.70	8,914	7,131	802	5,485	131	3,343	52	46,354	4,457
		Spruce Creek	15,901	486.20	13,234	10,587	1,191	8,143	194	4,963	77	68,815	6,617
		Lower Brushy Fork Creek	25,840	1,958.00	20,989	16,791	1,889	12,915	308	7,871	122	109,143	10,495
	Colt Killed Creek	Upper Colt Killed Creek	24,765	-	22,124	17,699	1,991	13,613	324	8,296	128	115,043	11,062
		Upper Big Sand Creek	17,484	-	14,027	11,222	1,262	8,631	206	5,260	81	72,941	7,014
		Hidden Creek	10,659	-	9,442	7,554	850	5,810	138	3,541	55	49,099	4,721
		Lower Big Sand Creek	24,323	-	19,719	15,775	1,775	12,134	289	7,395	114	102,539	9,859
		Middle Colt Killed Creek	10,883	33.20	9,123	7,299	821	5,614	134	3,421	53	47,442	4,562
		Colt Creek	16,650	116.30	13,337	10,670	1,200	8,207	196	5,001	77	69,354	6,669
		Storm Creek	32,134	-	27,879	22,303	2,509	17,155	409	10,455	162	144,970	13,939
	Lower Colt Killed Creek	21,047	984.30	15,270	12,216	1,374	9,396	224	5,726	89	79,403	7,635	
Upper Lochsa	Lochsa River - Walton Creek	18,801	1,522.40	11,463	9,171	1,032	7,054	168	4,299	66	59,609	5,732	

					Aminopyralid	Clopyralid	Dicamba	Glyphosate products without surfactants	Glyphosate products with surfactants	Methsulfuron Methyl	Picloram	Triclopyr TEA	2,4-D
Chemical Application Rate (pounds/acre)					0.1	0.5	1.5	1.5	1.5	0.4	1.0	0.4	1.0
Median Lethal Concentration (LC50 - ppm)					>100	103	135	923	22	150	0.8-26	199	240
Median Lethal Concentration/20 (LC50/20 - ppm) or NOEL or NOEC (ppm)					5	20	6.8	46.2	1.1	7.5	0.29	104	10
	River	Legendary Bear Creek	13,242	1,924.00	10,318	8,254	929	6,349	151	3,869	60	53,652	5,159
		Lochsa River - Wendover Creek	20,702	2,121.00	12,661	10,129	1,139	7,791	186	4,748	73	65,837	6,330
		Fishing Creek	17,190	1,329.70	14,342	11,473	1,291	8,825	210	5,378	83	74,577	7,171
	Warm Springs Creek	Upper Warm Spring Creek	13,795	-	10,097	8,078	909	6,213	148	3,786	59	52,504	5,048
		Wind Lakes Creek	12,521	-	9,337	7,470	840	5,745	137	3,501	54	48,552	4,668
		Lower Warm Springs Creek	19,475	42.60	13,147	10,518	1,183	8,090	193	4,930	76	68,366	6,574
	Middle Lochsa River	Lochsa River - Weir Creek	33,269	2,392.70	22,433	17,946	2,019	13,804	329	8,412	130	116,651	11,216
		Post Office Creek	12,203	195.80	8,897	7,118	801	5,475	130	3,336	52	46,265	4,449
		Lake Creek	33,336	-	28,402	22,722	2,556	17,477	417	10,651	165	147,692	14,201
		Lochsa River - Stanley Creek	31,553	365.20	20,074	16,059	1,807	12,352	294	7,528	116	104,385	10,037
		Lochsa River - Bald Mtn Creek	28,790	269.30	17,792	14,234	1,601	10,948	261	6,672	103	92,520	8,896
		Boulder Creek (South)	30,009	330.30	22,018	17,614	1,982	13,548	323	8,257	128	114,493	11,009
	Fish Creek	Upper Fish Creek	23,237	-	15,775	12,620	1,420	9,707	231	5,916	91	82,030	7,887
		Hungery Creek	22,658	-	19,070	15,256	1,716	11,734	280	7,151	111	99,163	9,535
		Lower Fish Creek	10,404	18.10	6,061	4,849	545	3,730	89	2,273	35	31,517	3,031
	Lower Lochsa River	Lochsa River - Bemerick Creek	34,478	543.30	19,166	15,333	1,725	11,793	281	7,187	111	99,662	9,583
		Old Man Creek	28,128	-	21,058	16,846	1,895	12,957	309	7,897	122	109,500	10,529

				Aminopyralid	Clopyralid	Dicamba	Glyphosate products without surfactants	Glyphosate products with surfactants	Methsulfuron Methyl	Picloram	Triclopyl TEA	2,4-D	
Chemical Application Rate (pounds/acre)				0.1	0.5	1.5	1.5	1.5	0.4	1.0	0.4	1.0	
Median Lethal Concentration (LC50 - ppm)				>100	103	135	923	22	150	0.8-26	199	240	
Median Lethal Concentration/20 (LC50/20 - ppm) or NOEL or NOEC (ppm)				5	20	6.8	46.2	1.1	7.5	0.29	104	10	
		Split Creek	9,995	-	6,765	5,412	609	4,163	99	2,537	39	35,178	3,382
		Fire Creek	11,261	-	7,830	6,264	705	4,818	115	2,936	45	40,717	3,915
		Deadman Creek	12,708	193.00	7,450	5,960	671	4,584	109	2,794	43	38,742	3,725
		Lochsa River - Glade Creek	21,045	201.90	11,178	8,942	1,006	6,878	164	4,192	65	58,124	5,589
		Canyon Creek	12,612	9.60	7,392	5,914	665	4,549	108	2,772	43	38,440	3,696
		Pete King Creek	17,613	356.90	10,150	8,120	914	6,246	149	3,806	59	52,781	5,075
Middle Fork Clearwater River 17060304	Middle Fork Clearwater	Middle Fork Clearwater	47,826	399.20	20,553	16,442	1,850	12,647	301	7,707	119	106,876	10,277
		Big Smith Creek	3,165	0.20	1,583	1,266	142	974	23	594	9	8,232	792
		Swan Creek	1,590	13.80	731	585	66	450	11	274	4	3,801	365
		Sutter Creek	5,212	0.80	2,008	1,607	181	1,236	29	753	12	10,443	1,004
		Maggie Creek	17,048	-	6,010	4,808	541	3,698	88	2,254	35	31,250	3,005
Clearwater River 17060306	Lolo Creek	Upper Lolo Creek	26,846	90.00	16,992	13,594	1,529	10,456	249	6,372	99	88,360	8,496
		Musselshell Creek	35,323		17,915	14,332	1,612	11,024	263	6,718	104	93,160	8,958
		Middle Lolo Creek	29,459	29.20	13,899	11,119	1,251	8,552	204	5,212	81	72,273	6,949
		Eldorado Creek	27,174	-	14,992	11,994	1,349	9,225	220	5,622	87	77,959	7,496
		Lower Lolo Creek	36,614	-	24,058	19,246	2,165	14,803	353	9,022	140	125,099	12,029
TOTAL		985,850	19,290.50	675,257	540,205	60,773	415,508	9,904	253,221	3,917	3,511,335	337,628	

Table 2. Maximum Annual Sprayable Acreage Using Each Herbicide with No Observable Effect (or equivalent) Summarized by HUC 5.

					Aminopyralid	Clopyralid	Dicamba	Glyphosate products without surfactants	Glyphosate products with surfactants	Methsulfuron Methyl	Picloram	Triclopyr TEA	2,4-D
Chemical Application Rate (pounds/acre)					0.1	0.5	1.5	1.5	1.5	0.4	1.0	0.4	1.0
Median Lethal Concentration (LC50 - ppm)					>100	103	135	923	22	150	0.8-26	199	240
Median Lethal Concentration/20 (LC50/20 - ppm) or <i>NOEL</i> or <i>NOEC</i> (ppm)					5	20	6.8	46.2	1.1	7.5	0.29	104	10
Subbasin	Major Subbasin	Watershed Name	Watershed Acres	Known Concentrations of Noxious Weeds (acres)	Maximum Acres that could be treated without Lethal Effects								
Lochsa River	Crooked Fork Creek		108,623	5,807.70	92,718	74,175	8,345	57,053	1,360	34,769	538	482,135	46,359
	Colt Killed Creek		157,945	1,133.80	130,921	104,737	11,783	80,560	1,920	49,095	759	680,790	65,461
	Upper Lochsa River		69,935	6,897.10	48,784	39,027	4,391	30,018	715	18,294	283	253,675	24,392
	Warm Springs Creek		45,791	42.60	32,581	26,065	2,932	20,048	478	12,218	189	169,422	16,291
	Middle Lochsa River		169,160	3,553.30	118,408	95,693	10,765	73,604	1,754	44,856	694	622,006	59,808
	Fish Creek		56,299	18.10	40,906	32,725	3,682	25,171	600	15,340	237	212,711	20,453
	Lower Lochsa River		147,840	1,304.70	90,989	72,791	8,189	55,989	1,335	34,121	528	473,143	45,495
Middle Fork Clearwater River	Middle Fork Clearwater		74,841	414.00	30,885	24,708	2,780	19,005	453	11,582	179	160,602	15,443
Clearwater River	Lolo Creek		155,416	119.20	87,856	70,285	7,907	54,061	1,289	32,946	510	456,851	43,928
Total:			985,850	19,291	674,049	540,205	60,773	415,508	9,904	253,221	3,917	3,511,335	337,628

APPENDIX J - BEST MANAGEMENT PRACTICES

Idaho Forest Practices Act

Section 060. Use of Chemicals and Petroleum Products.

03. Licensing
04. Maintenance of Equipment
 - a. Equipment used for transportation, storage, or application of chemicals shall be maintained in leakproof condition.
 - b. Storage in accordance with Rules of the Idaho Pesticide Law and IDAPA 02.03.03
05. Mixing
 - a. When water is used in mixing chemicals:
 - i. Provide an air gap or reservoir between the water source and the mixing tank.
 - ii. Use uncontaminated tanks, pumps, hoses, and screens to handle and transfer mix water for utilization in pesticide operations.
 - b. Mixing and landing areas:
 - i. Mix chemicals and clean tanks and equipment only where spills will not enter any water source or stream.
 - ii. Landing area shall be located where spilled chemicals will not enter any water source or stream.
 - iii. Rinsate and wash water should be recovered and used for make-up water, be applied to the target area, or disposed of according to state and federal laws.
07. Ground application with power equipment
 - a. With exception of pesticides approved for aquatic use and applied according to labeled directions, when applying pesticide, leave at least twenty-five feet untreated on each side of all Class I streams, flowing Class II streams, and areas of open water.
08. Hand application
 - a. Apply only to specific targets;
 - b. Keep chemicals out of all water sources or streams.
09. Limitations of applications
 - a. Chemicals shall be applied in accordance with all limitations and instructions printed on the product registration labels, supplemental labels, and other established by regulation of the director.
 - b. Do not exceed allowable rates.
 - c. Prevent direct entry of chemicals into any water source or stream.
10. Daily Records of Chemical Applications
 - a. When pesticides are applied on forest land, the operator shall maintain a daily record of spray operations which includes:
 - i. Date and time of day of application.
 - ii. Name and address of owner of property treated.
 - iii. Purpose of application.

- iv. Contractor's name or applicator's name for ground application.
 - v. Location of project (section, township, range and county).
 - vi. Air temperature (hourly).
 - vii. Wind velocity and direction (hourly).
 - viii. Pesticides used including trade or brand name, EPA product registration number, mixture, application rate, carrier used, and total amounts applied.
 - d. Records retained for three years.
11. Container disposal.

Chemical containers shall be: cleaned and removed from the forest and disposed of in a manner approved by the director in accordance with applicable local, state and federal regulations; or removed for reuse in a manner consistent with label directions and applicable regulations of a state or local health department. Open burning of containers is prohibited.

12. Spills.

Spills shall be reported and appropriate cleanup action taken in accordance with applicable state and federal laws and rules and regulations.

- a. All chemical accidents and spills shall be reported immediately to the director.
- b. If chemical is spilled, appropriate procedures shall be taken immediately to control the spill source and contain the released material.
- c. It is the applicator's responsibility to collect, remove, and dispose of the spilled material in accordance with applicable local, state and federal rules and regulations and in a manner approved by the director.

13. Misapplications.

Whenever chemicals are applied to the wrong site or pesticides are applied outside of the directions on the product label, it is the responsibility of the applicator to report these misapplications immediately to the director.

Soil and Water Conservation Practices Handbook (FSH 2509.22) 13

Vegetation Manipulation

PRACTICE: 13.07 - Pesticide Use Planning

OBJECTIVE: To incorporate water quality and hydrologic considerations into the Pesticide Use Planning Process.

EXPLANATION: The pesticide use planning process will be used to identify problem areas and the objectives of the project, establish the administrative controls, identify treatments and preventive measures, and incorporate the hydrologic considerations contained in SWCP 13.08 through 13.13. The NEPA process addresses these considerations in terms of impacts, mitigation measures, and alternative treatment measures. Project work and safety plans specify management direction.

Factors considered in pesticide selection are: purpose of the project, application methods available, target species, timing of treatment, pest location, size of treatment area, and need for repeated treatment. Practicability of application considers: registration restrictions, form and method of application, topographic relief and areas to be avoided, and social acceptance of the project. The degree of risk considers: hazard to humans, method of application, transportation and handling hazards, carriers needed, and chemical persistence.

IMPLEMENTATION: The interdisciplinary team evaluates the project in terms of potential site response, potential social and environmental impacts, mitigating measures needed to protect water quality, and the need and intensity of monitoring and evaluation. The responsible Line Officer then prepares the necessary NEPA documentation, Project Plan and Safety Plan. Depending on the pesticide use, (FSM 2151.04) the Forest pesticide-use coordinator or Integrated Pest Management Working Group or regional IP-MWG reviews the documents along with the Pesticide-use Proposal, form FS-2100-2, and makes recommendations for or against approval of the project.

REFERENCES: NFMA; NEPA; FSM 2150 and 2323; State Hazardous Waste Management Plans; see references in “Best Management Practices” Definition 05—2 and 3.

PRACTICE: 13.08 - Apply Pesticides According to Label and EPA Registration Directions

OBJECTIVE: To avoid water contamination by complying with all label instructions and restrictions.

EXPLANATION: Label directions for each pesticide are detailed and specific, and include legal requirements to use.

IMPLEMENTATION: Constraints identified on the label and other legal requirements of application are incorporated into project plans and contracts. Responsibility for ensuring that label directions and other applicable requirement are followed rests with the Forest Supervisor or designate such as the Forest Pesticide Use Coordinator. For contracted projects, it is the responsibility of the Contracting Officer to ensure that label directions and all other requirements are followed.

REFERENCES: FSM 2150; see references in Best Management Practice Definition (05—2 and 3).

PRACTICE: 13.09 - Pesticide Application Monitoring and Evaluation

OBJECTIVE: To determine and document that pesticides have been applied safely and to provide an early warning for any contamination of water or non-target areas or resources.

EXPLANATION: This practice provides feedback on the placement accuracy, application amount, and any water contamination that might occur from pesticide use, so as to minimize or eliminate hazards to non-target areas or resources. Monitoring and evaluation methods include spray cards, dye tracing, and direct measurement of pesticide in or near water. Type of pesticide, equipment, application difficulty, public concern, beneficial uses, monitoring difficulty, availability of competent laboratory analysis and applicable federal, State, and local laws and regulations are factors considered when determining the monitoring and evaluation needs.

IMPLEMENTATION: The monitoring and evaluation of pesticide application is a component of SWCP 11.02. The need for a monitoring plan is identified during the Pesticide Use Planning Process/NEPA process. If determined necessary, this monitoring and evaluation plan will consider the same items as in SWCP 11.02. A technical staff familiar in pesticide monitoring will evaluate and interpret the monitoring results in terms of compliance, State water quality standards and adequacy of project specifications.

REFERENCES: FSM 2150; see references in Best Management Practice Definition (05—2 and 3).

PRACTICE: 13.10 - Pesticide Spill contingency Planning

OBJECTIVE: To reduce contamination of water from accidental pesticide spills.

EXPLANATION: A contingency plan that contains a predetermined organization and immediate actions to be implemented in the event of a hazardous substance spill will be prepared. The plan lists notification

requirements, time requirements for notification, how spill will be handled, and who will be responsible for clean-up. Factors considered for each spill are: specific substance spilled, quantity, toxicity, proximity of spill to waters, and the hazard to life, property and the environment.

IMPLEMENTATION: The Pesticide Spill Contingency Plan will be incorporated into the Project Safety Plan. The NEPA process will provide the means for including public and other agency involvement in plan preparation. The plan will list the responsible authorities.

REFERENCES: SWCP 11.07; Pesticide Storage, Transportation, Spills, and Disposal Handbook (FSH 2109.12); FSM 6740, 7442, 7443, and 7460; Oil and Hazardous Substances Pollution contingency Plan for EPA Region 8 and 10, 7/26/85; R1 and R4 Emergency and Disaster Plan; see references Best Management Practice Definition (05—2 and 3).

PRACTICE: 13.11 - Cleaning and Disposal of Pesticide Containers and Equipment

OBJECTIVE: To prevent water contamination and risk to humans from cleaning and disposal of pesticide containers.

EXPLANATION: The cleaning and disposal of pesticide containers and equipment must be done in accordance with Federal, State, and local laws, regulations, and directives, and in a manner which will safeguard public health, the beneficial uses of water, aquatic organisms, and wildlife. Containers are rinsed three times, the rinse water applied on the project area as soon as practical, and the containers taken to the designated disposal site. Application equipment is also rinsed and rinse water applied to the project site before the equipment is moved from the project area.

IMPLEMENTATION: when the pesticide is applied by In-Service personnel, the Forest or District Pesticide Use Coordinator will locate proper rinsing and disposal sites, and will arrange for container disposal in an approved disposal site. When the pesticide is applied by a contractor, the contractor is responsible for proper clean-up and container disposal in accordance with label directions and Federal, State, and local laws.

REFERENCES: SWCP 11.07; Pesticide Storage, Transportation, Spills, and Disposal Handbook (FSH 2109.12); FSM 6740, 7442, 7443, and 7460; Oil and Hazardous Substances Pollution contingency Plan for EPA Region 8 and 10, 7/26/85; R1 and R4 Emergency and Disaster Plan; see references Best Management Practice Definition (05—2 and 3).

PRACTICE: 13.12 - Protection of Water, Wetlands, and Riparian Areas During Pesticide Spraying

OBJECTIVE: To minimize the risk of a pesticide entering surface or subsurface waters or affecting riparian areas, wetlands, or other non-target areas.

EXPLANATION: When applying pesticides, an untreated buffer strip will be left alongside surface waters, wetlands, and riparian areas. Factors considered in establishing buffer strip widths beyond minimums established by FSM and NEPA documents are: beneficial water uses, adjacent land use, rainfall, temperature, wind speed, wind direction, terrain, slope, soils and geology, vegetative type, and aquatic life. Other considerations include: persistence mobility, toxicity, and formulation of the pesticide, method of application, equipment used, spray pattern, droplet size, application height, and application pattern.

IMPLEMENTATION: Protected areas will be identified and mapped by an interdisciplinary team and the Forest Pesticide Use Coordinator during the NEPA process. Protection of untreated areas is the responsibility of the project supervisor for In-Service projects and the Contracting Officer for contracted projects. The certified commercial applicators are briefed about location of protected areas. These areas are flagged or otherwise marked when necessary to aid in boundary identification.

REFERENCES: FSM 2526, 2527, 2245, and 2150; see references in **Best Management Practice** (05—2 and 3).

PRACTICE: 13.13 - Controlling Pesticide Drift During Spray Application

OBJECTIVE: To minimize the risk of pesticide contaminating non-target areas.

EXPLANATION: Pesticide spray applications will be accomplished according to a prescription that specifies the following: areas to be left untreated, buffer areas, type of spray and associated materials, equipment and method to be used, droplet size, spray height, application pattern, flow rate, terrain and meteorological consideration. Hand spraying, with less associated risk, will have fewer application restrictions for drift than aerial spraying.

IMPLEMENTATION: The prescription is prepared by an interdisciplinary team and the Forest or District Pesticide Use Coordinator during the NEPA process. The Line Officer is responsible for designating a project supervisor who is responsible for ensuring that the prescription is followed during application and for terminating application if the standards are exceeded.

REFERENCES: FSM 2150 and 2245; SWCP 13.12; see **Best Management Practice Definition** (05—2 and 3).

OTHER BMPs

- A spill cleanup kit will be available whenever pesticides (herbicides) are transported or stored.
- A spill contingency plan will be developed prior to all herbicide applications. Individuals involved in herbicide handling or application will be instructed on the spill contingency plan and spill control, containment, and cleanup process.
- Herbicide applications will only treat the minimum area necessary for control of noxious weeds.
- No spraying will occur when wind velocity exceeds 6 miles per hour or as specified on the label.
- Do not spray if precipitation is occurring or is imminent.
- Do not spray if air turbulence is sufficient to affect the normal spray pattern.



**FOREST SERVICE MANUAL
NORTHERN REGION (REGION 1)
MISSOULA, MT.**

FSM 2000 – NATIONAL FOREST RESOURCE MANAGEMENT

ZERO CODE 2080 – NOXIOUS WEED MANAGEMENT

Supplement No.: R1 2000-2001-1

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Approved: KATHY A. MCALLISTER
Acting Regional Forester

Date Approved: 04/27/2001

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Superseded Document(s):	None. (This is the first supplement to this Manual.)	0 Pages

Digest:

	This supplement implements an Integrated Weed Management approach for management of noxious weeds on National Forest System lands in Region 1.
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2080.4 - Responsibility.

Encourage weed awareness and education in employee development and training plans and orientation for both field and administrative work.

2080.43 - Forest Supervisor.

Forest Supervisors are responsible for:

1. Emphasizing weed awareness and weed prevention in all fire training, especially resource advisors, fire management teams, guard school, and district orientation.
2. Adding weed awareness and prevention education to Fire Effects and Prescribed Fire training.
3. Giving helicopter managers training in weed prevention and mitigation measures.
4. Resource Advisors should provide briefings to identify operational practices to reduce weed spread.
5. Providing Field Observers with weed identification aids and striving to avoid weed infestations in fire line location.

2080.44 - District Rangers.

District Rangers are responsible for:

1. Providing weed prevention briefings for helibase staff.
2. Ensuring at least one permanent staff member per District is trained and proficient in weed management.
3. Applying weed treatment and prevention on all Forest Service administrative sites including Ranger Stations, trailheads, campgrounds, pastures, interpretive and historic sites.

2081 - MANAGEMENT OF NOXIOUS WEEDS.

2081.2 - Prevention and Control Measures.

1. Roads.
 - a. Required Objectives and Associated Practices.
 - (1) Incorporate weed prevention into road layout, design, and alternative evaluation. Environmental analysis for road construction and reconstruction will include weed risk assessment.
 - (2) Remove the seed source that could be picked up by passing vehicles and limit seed transport in new and reconstruction areas.

(a) Remove all mud, dirt, and plant parts from all off road equipment before moving into project area. Cleaning must occur off National Forest lands. This does not apply to service vehicles that will stay on the roadway, traveling frequently in and out of the project area.

(b) Clean all equipment prior to leaving the project site, if operating in areas infested with new invaders as determined by the Forest Weed Specialist. Reference Contract Provision C/CT 6.626.

(3) Re-establish vegetation on bare ground due to construction and reconstruction activity to minimize weed spread.

(a) Revegetate all disturbed soil, except the travel way on surfaced roads, in a manner that optimizes plant establishment for that specific site, unless ongoing disturbance at the site will prevent weed establishment. Use native material where appropriate and available. Use a seed mix that includes fast, early season species to provide quick, dense revegetation. To avoid weed contaminated seed, each lot must be tested by a certified seed laboratory against the all State noxious weed lists and documentation of the seed inspection test provided.

(b) Use local seeding guidelines for detailed procedures and appropriate mixes. Use native material where appropriate and available. Revegetation may include planting, seeding, fertilization, and weed-free mulching as indicated by local prescriptions.

(c) Monitor and evaluate success of revegetation in relation to project plan. Repeat as indicated by local prescriptions.

(4) Minimize the movement of existing and new weed species caused by moving infested gravel and fill material. The borrow pit will not be used if new invaders, defined by the Forest Weed Specialist, are found on site.

(5) Minimize sources of weed seed in areas not yet revegetated. If straw is used for road stabilization and erosion control, it must be certified weed-free or weed-seed free.

(6) Minimize roadside sources of weed seed that could be transported to other areas during maintenance.

(a) Look for priority weed species during road maintenance and report back to District Weed Specialist.

(b) Do not blade roads or pull ditches where new invaders are found.

(c) Maintain desirable roadside vegetation. If desirable vegetation is removed during blading or other ground disturbing activities, area must be revegetated according to section (3) (a), (b), (c) above.

(d) Remove all mud, dirt, and plant parts from all off road equipment before moving into project area. Cleaning must occur off National Forest lands. (This does not apply to service vehicles that will stay on the roadway, traveling frequently in and out of the project area.)

(e) Clean all equipment prior to leaving the project site, if operating in areas infested with new invaders, as determined by the Forest Weed Specialist. Reference Contract Provision C/CT 6.626.

(f) Straw used for road stabilization and erosion control will be certified weed-free or weed-seed-free.

(7) Reduce weed establishment in road obliteration/reclamation projects. Revegetate according to section (3) (a), (b), (c) above.

b. Recommended Objectives and Associated Practices.

(1) Retain shade to suppress weeds. Consider minimizing the removal of trees and other roadside vegetation during construction, reconstruction, and maintenance, particularly on southerly aspects.

(2) Consider re-establishing vegetation on bare ground due to construction and reconstruction activity to minimize weed spread. Road maintenance programs should include scheduled fertilization to maintain vigor of competitive vegetation (3-year period suggested).

(3) Minimize the movement of existing and new weed species caused by moving infested gravel and fill material. All gravel and borrow sources should be inspected and approved before use and transport. The source will not be used if the weeds present at the pit are not found at the site of intended use. If weeds are present, they must be treated before transport and use.

(4) Minimize roadside sources of weed seed that could be transported to other areas. Weed infestations should be inventoried and scheduled for treatment.

(5) Ensure that weed prevention and related resource protection are considered in travel management. Consider weed risk and spread factors in travel plan (road closure) decisions.

(6) Reduce weed establishment in road obliteration/reclamation projects. Consider treating weeds in road obliteration and reclamation projects before roads are made undriveable. Monitor and retreat as indicated by local analysis and prescription.

(7) Evaluate and prioritize noxious weeds along existing Forest Service access roads leading to project area and treat as indicated by local analysis and prescriptions, before construction equipment moves into project area. New road construction must be revegetated as described in Weed Prevention measure, see Roads Required Objectives and Associated Practices section (3) (a), (b), (c) above.

2. Recreation, Wilderness, Roadless Areas.

a. Required Objectives and Associated Practices.

(1) Minimize transport and establishment of weeds on National Forest Service lands.

(a) Include environmental analysis for recreation and trail projects in weed risk assessment.

(b) Post and enforce statewide weed-free feed orders.

(c) Seed only when necessary at backcountry sites to minimize introduction of nonnative species and weeds. Reseed according to Roads (3) (a), (b), (c) above.

(2) Reduce weed establishment and spread from activities covered by Recreation Special Use Permits.

(a) Include Clause R1-D4, (or subsequent approved direction), in all new and reissued recreation special use permits, authorizations, or other grants involving ground-disturbing activities. Include this provision in existing ground-disturbing authorizations, which are being amended for other reasons.

(b) Revegetate bare soil resulting from special use activity according to Roads (3) (a), (b), (c) above.

(3) Prevent weed establishment resulting from land and float trail use, construction, reconstruction and maintenance activities.

(a) Clean all equipment prior to leaving the project site, if operating in areas infested with new invaders (as determined by the Forest Weed Specialist).

b. Recommended Objectives and Associated Practices.

(1) Minimize transport and establishment of weeds on National Forest System (NFS) lands.

(a) Encourage backcountry pack and saddle stock users to feed only weed-free feed for several days prior to traveling off roads in the Forest. Before entering NFS land, animals should be brushed to remove any weed seed.

(b) Stock should be tied and/or held in the backcountry in such a way as to minimize soil disturbance and avoid loss of native/desirable vegetation.

(c) Maintain trailheads, boat launches, outfitter and public camps, airstrips, roads leading to trailheads, and other areas of concentrated public use in a weed-free condition.

(d) Motorized and/or mechanized (such as mountain bikes) trail users should inspect and clean their vehicles prior to using NFS lands.

(2) Consider reducing weed establishment and spread from activities covered by recreation, special use permits. Consider including Clause R1-D4, (or subsequent approved direction), by amending existing ground-disturbing authorizations as indicated by local prescriptions.

(3) Prevent weed establishment resulting from land and float trail use, construction, reconstruction, and maintenance activities.

(a) All trail crews should inspect, remove, and properly dispose of weed seed and plant parts found on their clothing and equipment.

(b) Inspect and approve all gravel and borrow sources before use and transport. The source will not be used if the weeds present at the pit are not found at the site of intended use. If weeds are present, they must be treated before transport and use.

3. Cultural Resources.

Required Objectives and Associated Practices. Reduce weed establishment and spread at archeological excavations.

Revegetate bare soil resulting from cultural resource excavation activity according to the Roads (3) (a), (b), (c) section above.

4. Wildlife, Fisheries, and Botany.

Required Objectives and Associated Practices. Incorporate weed prevention into wildlife, fisheries, and botany project design.

a. Include weed risk assessment in environmental analysis for wildlife, fish and botany projects with ground disturbing actions.

b. Revegetate bare soil resulting from wildlife and fish project activity according to the Roads (3) (a), (b), (c) section above.

c. Remove all mud, dirt, and plant parts from all off road equipment before moving into project area. Cleaning must occur off National Forest lands. (This does not apply to service vehicles that will stay on the roadway, traveling frequently in and out of the project area.)

d. Clean all equipment prior to leaving the project site, if operating in areas infested with new invaders (as determined by the Forest Weed Specialist).

5. Range.

a. Required Objectives and Associated Practices.

(1) Ensure weed prevention and control are considered in management of all grazing allotments.

(a) Include weed risk assessment in environmental analysis for rangeland projects.

(b) When other plans do not already address noxious weeds, include practices and control measures in Annual Operating Plans.

(2) Minimize ground disturbance and bare soil.

(a) Revegetate, where applicable, bare soil from grazing activities according to the Roads (3) (a), (b), (c) section above.

(b) Check areas of concentrated livestock use for weed establishment and treat new infestations.

(3) Minimize transport of weed seed into and within allotments.

(a) Remove all mud, dirt, and plant parts from all off road equipment before moving into project area. Cleaning must occur off National Forest lands. (This does not apply to service vehicles that will stay on the roadway, traveling frequently in and out of the project area.)

(b) Clean all equipment prior to leaving the project site, if operating in areas infested with new invaders (as determined by the Forest Weed Specialist).

(c) Straw used for road stabilization and erosion control will be certified weed-free or weed-seed-free.

b. Recommended Objectives and Associated Practices.

- (1) Transport of weed seed into and within allotments should be minimized.
 - (a) Avoid driving vehicles through off-road weed infestations.
 - (b) Feed certified weed-free feed to livestock for several days prior to moving them onto the allotment to reduce the introduction of new invaders and spread of existing weed species. Consider using transitional pastures when moving animals from weed infested areas to the National Forest. (Transitional pastures are designated fenced areas that can be logistically and economically maintained.)
 - (c) Consider excluding livestock from sites with new invaders or treat new invaders in these areas before entry by livestock.
- (2) Maintain healthy desirable vegetation that is resistant to noxious weed establishment.
 - (a) Consider managing forage utilization to maintain the vigor of desirable plant species as described in the Allotment Management Plan.
 - (b) Minimize or exclude grazing on restoration areas until vegetation is well established.

6. Timber.

a. Required Objectives and Associated Practices.

- (1) Ensure that weed prevention is considered in all pre-harvest timber projects.
 - (a) Include weed risk assessment in environmental analysis for timber harvest projects.
 - (b) Remove all mud, dirt, and plant parts from all off road equipment before moving into project area. Cleaning must occur off National Forest lands. (This does not apply to service vehicles that will stay on the roadway, traveling frequently in and out of the project area.) Reference Contract Provision C/CT6.26
 - (c) Clean all equipment prior to leaving the project site, if operating in areas infested with new invaders (as designated by the Forest Weed Specialist). Reference Contract Provision C/CT6.261
- (2) Minimize the creation of sites suitable for weed establishment. Revegetate bare soil as described in the Roads (3) (a), (b), (c) section above.

b. Recommended Objectives and Associated Practices.

- (1) Ensure that weed prevention is considered in all timber projects.
 - (a) Consider treating weeds on roads used by timber sale purchasers. Reference Contract Provision C/CT6.26.
 - (b) Treat weeds on landings, skid trails and helibases that are weed infested before logging activities, where practical.
- (2) Minimize the creation of sites suitable for weed establishment. Soil disturbance should be minimized to meet harvest project objectives.

(3) Consider monitoring for weeds after sale activity and treat weeds as indicated by local prescriptions.

(a) Consider trust, stewardship, or other funds to treat soil disturbance or weeds as needed after timber harvest and regeneration activities.

(b) Consider monitoring and treating weed infestations at landings and on skid trails after harvest.

7. Minerals.

a. Required Objectives and Associated Practices.

(1) Minimize weed establishment in mining, oil and gas operations, and reclamation.

(a) Include weed risk assessment in environmental analysis for minerals and oil and gas projects.

(b) Include weed prevention measures in operation and/or reclamation plans.

(c) Retain bonds until reclamation requirements are completed.

(d) Revegetate bare soil as described in the Roads (3) (a), (b), (c) section above.

(2) Remove seed source and limit seed transport into new or existing mining and oil and gas operations. Remove all mud, dirt, and plant parts from all off road equipment before moving into project area. Cleaning must occur off National Forest lands. (This does not apply to service vehicles that will stay on the roadway, traveling frequently in and out of the project area.)

(3) Minimize weed spread caused by moving infested gravel and fill material.

(a) The borrow pit will not be used if new invaders (as defined by the Forest Weed Specialist) are found on the site.

(b) Remove all mud, dirt, and plant parts from all off road equipment before moving into project area. Cleaning must occur off National Forest lands. (This does not apply to service vehicles that will stay on the roadway, traveling frequently in and out of the project area.)

(c) Do not establish new gravel and fill material sources in areas where new invaders are present on National Forest Service lands. Where widespread weeds occur at new pit sites strip at least the top 8" and stockpile contaminated material. Treat weeds at new pits where widespread weeds are present.

b. Recommended Objectives and Associated Practices.

(1) Consider removing seed source and limiting seed transport into new or existing mining and oil and gas operations. Where applicable, treat weeds on project access routes. Reference Contract Provision C/CT6.27.

(2) Minimize weed spread caused by moving infested gravel and fill material.

(a) Inspect and approve all gravel and borrow sources before use and transport. The source should not be used if the weeds present at the pit are not found at the site of intended use. If weeds are present, they should be treated before transport and use.

(b) Consider maintaining stockpiled material in a weed-free condition.

(c) Check the area where pit material is used to ensure that no weed seeds are transported to the use site.

8. Soil and Water.

a. Required Objectives and Associated Practices.

(1) It is required that integrated weed prevention and management be used in all soil, watershed, and stream restoration projects.

(a) Include weed risk assessment in environmental analysis for soil, watershed, and stream restoration projects with ground disturbing actions.

(b) Revegetate bare soil resulting from excavation activity according to the Roads (3) (a), (b), (c) section above.

(c) Remove all mud, dirt, and plant parts from all off road equipment before moving into project area. Cleaning must occur off National Forest lands. (This does not apply to service vehicles that will stay on the roadway, traveling frequently in and out of the project area.)

(d) Clean all equipment prior to leaving the project site, if operation in areas infested with new invaders (as designated by the Forest Weed Specialist).

(e) Straw used for road stabilization and erosion control will be certified weed-free or weed-seed-free.

b. Recommended Objectives and Associated Practices.

Integrate weed prevention and management in all soil, watershed, and stream restoration projects by considering treating weeds in road obliteration and reclamation projects before roads are made undriveable. Monitor and retreat as indicated by local prescriptions.

9. Lands and Special Uses.

a. Required Objectives and Associated Practices.

(1) Incorporate weed prevention provisions in all special use permits, road use permits, and easements.

(a) Include weed risk assessment in environmental analysis for land projects with ground disturbing actions.

(b) Revegetate bare soil as described in the Roads (3) (a), (b), (c) section above, as a condition of the authorization.

(c) Include approved special use provision R1-D4, see FSH 2709.11, chapter 50, (or subsequent approved direction) in all new and reissued special use permits, authorizations,

or other grants involving ground disturbing activities. Include this provision in existing ground disturbing authorizations, which are being amended for other reasons .

(d) Include noxious weed prevention and control measures as indicated by local prescriptions in new or reissued road permits or easements granted pursuant to FLPMA (P.L. 94579 0/2/76), FRTA (P.L. 88657 0/3/64) or subsequent authorities. This includes FLPMA Private and Forest Road Permits and Easements; FRTA Private and Forest Road Easements; Cost Share Easements; and Road Use (commercial haul) Permits (7730). (While the approved terms and conditions of certain permits or easements may not provide for modification, the necessary weed prevention and control provisions may be included in written plans, specifications, stipulations and /or operation and maintenance plans attached to and made a part of the authorization.)

(e) Clean all equipment prior to leaving the project site, if operating in areas infested with New Invaders (as designated by the Forest Weed Specialist).

(2) Minimize weed spread caused by moving infested gravel and fill material.

(a) Do not establish new gravel and fill material sources on National Forest Service lands in areas where new invaders are present. Where widespread weeds occur at new pit sites strip at least the top 8" and stockpile contaminated material. Treat weeds at new pits where widespread weeds are present.

(b) Remove all mud, dirt, and plant parts from all off-road equipment before moving into project area. Cleaning must occur off National Forest lands. (This does not apply to service vehicles that will stay on the roadway, traveling frequently in and out of the project area.)

b. Recommended Objectives and Associated Practices.

(1) Incorporate weed prevention provisions in all special use permits, road use permits and easements.

(a) Consider including special use provision R1-D4 by amending existing ground disturbing authorizations as indicated by local prescriptions.

(b) Consider including noxious weed prevention and control provisions by amending existing ground disturbing authorizations when determined to be necessary by the authorized officer. (While the approved terms and conditions of certain permits or easements may not provide for modification, the necessary weed prevention and control provisions may be included in written plans, specifications, stipulations and/or operation and maintenance plans attached to and made a part of the authorization.)

(2) Minimize weed spread caused by moving infested gravel and fill material. All gravel and borrow sources should be inspected and approved before use and transport. The source should not be used if the weeds present at the pit are not found at the site of intended use. If weeds are present, they should be treated before transport and use.

10. Fire.

a. Required Objectives and Associated Practices.

(1) Increase weed awareness among all fire personnel. Include weed risk factors and weed prevention considerations in the Resource Advisor duties on all Incident Management Teams and Fire Rehabilitation Teams during pre-fire, pre-incident training.

- (2) Mitigate and reduce weed spread during wild fire activities
 - (a) Initiate establishment of a network of helibases, camps and staging areas that will be maintained in a noxious weed-free condition.
 - (b) Minimize weed spread in camps by incorporating weed prevention and containment practices such as mowing, flagging or fencing weed patches, designating weed-free travel routes and washing equipment.
 - (c) Inspect all fire going vehicles regularly to assure that undercarriages and grill works are kept weed seed free. All vehicles sent off Forest for fire assistance will be cleaned before they leave or return to their home.
- (3) Minimize weed spread during smoke jumper operations.
 - (a) Inspect, remove, and properly dispose of weed seed and plant parts found on clothing and equipment.
 - (b) Coordinate with Weed Specialist(s) to locate and/or treat practice jump areas.
- (4) Mitigate and reduce weed spread in Air Operations.
 - (a) Initiate establishment of a network of helibases that will be maintained in a noxious weed-free condition.
 - (b) Minimize weed spread at helibases by incorporating weed prevention and containment practices such as mowing, flagging or fencing weed patches, designating weed-free travel routes.
 - (c) Provide weed prevention briefings for helibase staff.
 - (d) Inspect, and if necessary clean, contract fuel and support vehicles before and after each incident when travelling off road or through weed infestations.
 - (e) Inspect and remove weed seed and plant parts from all cargo nets.
- (5) Mitigate and reduce weed spread from Logistics Operations activities.
 - (a) Look for weed-free camps, staging, drop points and parking areas.
 - (b) Regularly inspect and clean fire vehicles as necessary to assure that undercarriages and grill works are kept weed seed free.
 - (6) Integrate weed prevention and management in all prescribed burning. Mitigate and reduce weed spread during prescribed fire activities.
 - (a) Include weed risk assessment in environmental analysis for prescribed fire projects.
 - (b) Coordinate with local Noxious Weed Management Specialist to utilize helibases that are maintained in a weed-free condition, whenever possible.
 - (c) All crews should inspect, remove, and properly dispose of weed seed and plant parts found on their clothing and equipment.

(d) Add weed awareness and prevention education to Fire Effects and Prescribed Fire training.

(7) Encourage desirable vegetation during rehabilitation activities.

(a) Revegetate only erosion susceptible and high risk areas (as defined in Regional Risk Assessment Factors and Rating protocol) as described in the Roads (3) (a), (b), (c) section above.

(b) Straw used for road stabilization and erosion control will be certified weed-free or weed-seed-free.

b. Recommended Objectives and Associated Practices.

(1) Mitigate and reduce weed spread during fire activities.

(a) Initiate establishment of a network of helibases, camps, and staging areas on private land that will be maintained in a noxious weed-free condition.

(b) Consider checking and treating weeds that establish at cleaning sites after fire incidents, during rehabilitation.

(c) Emphasize Minimum Impact Suppression Tactics (M.I.S.T.) to reduce soil and vegetation disturbance.

(2) Minimize weed spread during smokejumper operations. Travel through weed infested areas should be avoided or minimized.

(3) Mitigate and reduced weed spread from Logistics Operations activities. Traffic should be routed through camps to avoid weed infested areas.

(4) Integrate weed prevention and management in all prescribed burning. Mitigate and reduce weed spread during prescribed fire activities.

(a) Consider treating high risk areas (as defined in Regional Risk Assessment Factors and Rating protocol) with weed infestations (such as roads, disturbed ground) before burning and check and retreat after burning if necessary.

(b) Consider avoiding ignition and burning in high risk areas (as defined in Regional Risk Assessment Factors and Rating protocol) that cannot be treated before or after prescribed fire.

(5) Encourage desirable vegetation during rehabilitation activities.

(a) Check and treat weeds at cleaning sites and all disturbed staging areas.

(b) Treat weeds within the burned area as part of rehabilitation plan to reduce weed spread.

(c) Check weed spread resulting from fire and fire suppression activities.

(d) Consider applying for restoration funding for treatment of weed infestations within the fire area.

11. Administration.

a. Required Objectives and Associated Practices.

(1) Ensure all Forest Service employees are aware of and knowledgeable about noxious weeds.

(a) Train Line Officers in noxious weed management principles and practices.

(b) Each unit will have access to Weed Specialist at the Ranger District or Supervisor's Office.

(2) Ensure all Forest workers are reducing the chance of spreading noxious weeds. All Forest workers will inspect, remove, and properly dispose of weed seed and plant parts found on their clothing and equipment including Forest Service vehicles.

b. Recommended Objectives and Associated Practices.

Consider a reward program for weed awareness, reporting, and beating new invaders.

2082 - COOPERATION.

1. Required Objectives and Associated Practices. Coordinate road maintenance activities with herbicide applications to maximize efficacy. Ensure road blading and roadside herbicide applications are coordinated chronologically to minimize herbicide use and increase effectiveness.

2. Recommended Objectives and Associated Practices. Consider providing Plans Section with weed control contact familiar with weeds in the fire area.

2082.2 - Methods of Cooperation.

6. Region 1 Required Objectives and Associated Practices.

a. Reduce weed establishment and spread at archeological excavations. Passports In Time programs and other Cultural Resource workers shall be given weed briefings and will inspect, remove, and properly dispose of weed seed and plant parts found on their clothing and equipment.

b. Promote weed awareness and prevention efforts among range permittees. Discuss weed awareness and prevention practices at annual permittee meetings.

APPENDIX K - CURRENT AND PROPOSED CHEMICAL TREATMENTS

Table 1 Summary of current treatment acres (USFS administrative and Idaho Transportation Department) and proposed treatment acres for 2007 for each watershed (5th HUC) and chemical

		Aminopyralid				Clopyralid				Dicamba				Glyphosate Products Without Surfactants				Glyphosate Products With Surfactants				Methsulfuron Methly				Picloram				TriclopyrI TEA				2,4-D							
Chemical Application Rate (pounds/acre)		0.1				0.5				1.5				1.5				1.5				0.4				1.0				0.4				1.0							
Median Lethal Concentration (LC50 - ppm)		>100				103				135				923				22				150				0.8-26				199				240							
Median Lethal Concentration/20 (LC50/20 - ppm) or NOEL or NOEC (ppm)		5				20				6.8				46.2				1.1				7.5				0.29				104				10							
Subbasin	HUC5	IDT	Admin	Proposed	Total	IDT	Admin	Proposed	Total	IDT	Admin	Proposed	Total	IDT	Admin	Proposed	Total	IDT	Admin	Proposed	Total	IDT	Admin	Proposed	Total	IDT	Admin	Proposed	Total	IDT	Admin	Proposed	Total	IDT	Admin	Proposed	Total				
Lochsa River	Crooked Fork Creek	0	0	77	77	6	0	174	180	0	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	22	12	0	0	12	12	0	18	30
	Colt Killed Creek	0	0	26	26	0	0	51	51	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
	Upper Lochsa River	0	0	111	111	0	43	175	218	0	0	0	0	0	0	7	7	0	0	8	8	0	0	0	0	0	0	30	30	0	0	0	0	0	0	0	0	0	0	19	19
	Warm Springs Creek	0	0	1	1	0	0	3	3	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Middle Lochsa River	0	0	50	50	15	50	102	167	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	2	5	7	33	0	0	33	33	0	0	33				
	Fish Creek	0	0	0	0	11	1	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	0	0	23	23	0	0	23				
	Lower Lochsa River	0	0	23	23	0	15	49	64	0	0	0	0	0	0	2	2	0	0	0	0	0	2	0	2	0	2	1	3	0	0	0	0	0	0	0	0				
Middle Fork Clearwater River	Middle Fork Clearwater	0	0	6	6	12	4	16	32	0	0	0	0	0	0	3	3	0	0	0	0	0	2	0	2	0	2	0	2	24	0	0	24	24	0	0	24				
Clearwater River	Lolo Creek	0	0	2	2	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0				
Totals:		0	0	296	296	44	113	577	734	0	0	0	0	0	0	22	22	0	0	8	8	0	4	0	4	0	6	60	66	92	0	0	92	92	0	37	129				

Table 2 Proposed treatment acres for 2007 for each watershed (5th HUC) and chemical in relation to riparian zones

HUC 5	Clopyralid		Aminopyralid		Dicamba		Glyphosate Products Without Surfactants		Glyphosate Products With Surfactants		Methsulfuron Methly		Picloram		Triclopyr TEA		2,4-D		All Herbicides
	15-100'	100'+	15-100'	100'+	15-100'	100'+	0-15'	-	15-100'	100'+	15-100'	100'+	15-100'	100'+	15-100'	100'+	15-100'	100'+	Any Distance
Crooked Fork Creek	31	46	96	78	0	0	4	0	0	0	0	0	0	22	0	0	18	0	295
Colt Killed Creek	13	13	27	24	0	0	2	0	0	0	0	0	0	1	0	0	0	0	80
Upper Lochsa River	67	44	82	93	0	0	7	0	8	0	0	0	0	30	0	0	19	0	350
Warm Springs Creek	1	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	5
Middle Lochsa River	39	11	70	32	0	0	3	0	0	0	0	0	0	5	0	0	0	0	160
Fish Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lower Lochsa River	9	14	27	22	0	0	2	0	0	0	0	0	0	1	0	0	0	0	75
Middle Fork Clearwater	6	0	16	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	25
Lolo Creek	0	2	3	4	0	0	0	0	0	0	0	0	0	1	0	0	0	0	10
Totals:	166	130	324	253	0	0	22	0	8	0	0	0	0	60	0	0	37	0	1000