DECISION NOTICE

Lochsa Weeds
Environmental Assessment
Lochsa and Powell Ranger Districts
Clearwater National Forest

Spotted Knapweed

October 2007

DECISION NOTICE

Lochsa Weeds Environmental Assessment

Lochsa and Powell Ranger Districts
Clearwater National Forest
Idaho County, Idaho

October 2007

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Responsible Official:	Tom Reilly Forest Supervisor Clearwater National Forest 12730 U.S. Highway 12 Orofino, ID 83544
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This document describes the decision for the Lochsa Weeds Environmental Assessment and the rationale for the decision. The decision is based on the analyses documented in the EA (April 2007) and the Clearwater National Forest Land and Resource Management Plan FEIS (September 1987).

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DECISION NOTICE

AND

FINDING OF NO SIGNIFICANT IMPACT

LOCHSA WEEDS ENVIRONMENTAL ASSESSMENT

LOCHSA AND POWELL RANGER DISTRICTS
USDA FOREST SERVICE
CLEARWATER NATIONAL FOREST
IDAHO COUNTY, IDAHO

DECISION SUMMARY

It is my decision to select Alternative 3 as described in the Lochsa Weeds Environmental Analysis. This alternative employs an integrated and adaptive strategy utilizing mechanical, biological, cultural and chemical treatment methods, and will allow aggressive control of noxious and invasive weeds on approximately 5,000 acres annually of identified infestations over the next ten years.

This project is within the Upper Clearwater Cooperative Weed Management Area, of which the Clearwater National Forest is an active participant in supporting and implementing weed management practices within constraints set by federal policies.

PROJECT BACKGROUND

In 2004, the Lochsa and Powell Ranger Districts initiated an Environmental Assessment for the control of noxious and invasive weeds on all National Forest System lands within the Lochsa River and Middle Fork Clearwater River subbasins (outside of wilderness) and the Lolo Creek watershed (see attached vicinity map). The project area also includes approximately 305 miles of cost-share roads through other ownerships, primarily on the Powell Ranger District.

Tribal consultation and public scoping aided in the development of three alternatives; these were analyzed and the environmental effects disclosed in the Lochsa Weeds EA, issued in April 2007. The EA was made available to the public for 30 days for review and comment. The decision described in this Decision Notice was made following a thorough review of the Environmental Assessment and public comments.

PURPOSE AND NEED

Purpose: Minimize the spread of noxious weeds across a wide area, including mixed ownerships, through (1) early detection and rapid response, (2) control and management, and (3) rehabilitation and restoration.

Need: Noxious and undesirable weeds are spreading across public lands at an alarming rate. According to science documents for the Interior Columbia Basin Ecosystem Management Project, invading weeds can alter ecosystem processes including productivity, decomposition, hydrology, nutrient cycling, and natural disturbance patterns such as the frequency and intensity of wildfires (Quigley and Arbelbide 1997). Changing these processes can lead to the displacement of native plant species, eventually affecting wildlife and plant habitat, recreational opportunities, and scenic beauty.

Weeds are spread primarily by human activities associated with vehicles and roads (Roche and Roche 1991), contaminated livestock feed, contaminated seed, and ineffective revegetation practices on disturbed lands (Callihan et al. 1991). Birds and other wildlife also spread weeds. Weeds most commonly become established in recreation sites, overgrazed acreages, and mining areas. However, it's important to recognize that weeds can appear on any site, including those least disturbed. For example, in the heart of the Selway-Bitterroot Wilderness Area, as much as an estimated 40,000 acres are occupied by spotted knapweed (Asher 1998).

Vallentine (1989) explains that some of the worst noxious plant problems are caused by weed species such as the hawkweeds, the knapweeds, and common tansy. Hawkweeds and knapweeds are found within the Lochsa River subbasin and have been expanding rapidly over the last several years.

Spotted knapweed infestations, for example, can increase soil erosion in creeks and rivers. Montana State University studies indicated that total water runoff from a 30-minute rain averaged 23 percent on a grass-covered site and 36 percent on a knapweed-dominated site. On average, water runoff was 56 percent higher and sediment losses were 192 percent higher on knapweed-dominated plots (Lacey 1989). Sediment yield tripled on the knapweed-dominated plots.

Purpose: Reduce noxious weed competition with native species.

Need: When a weed species infests a site, it often becomes dominant and greatly reduces the native grass and forb communities. Researchers have shown that native species have been reduced by up to 90 percent on sites infested with knapweed (Belcher and Wilson 1989; Willard et al. 1988; FEIS Noxious Weed Management Projects, Bonners Ferry 1995).

The plant physiology of knapweeds and other invaders permits them to invade new areas rapidly and out-compete native plants for light, water, and nutrients. Knapweeds, for example, have these characteristics:

- Early maturation.
- Profuse reproduction by seeds.
- Long life in the soil.
- Seed dormancy.
- Extremely long roots.
- Pricks, vines, and thorns that repel animals.
- Survival and seed production under adverse environmental conditions.

PROPOSED ACTION

Clearwater National Forest managers are proposing to control noxious weeds primarily on roads and trails within the following project area:

> All Clearwater National Forest System lands within the Lochsa River and Middle Fork Clearwater River subbasins (outside of wilderness) and the Lolo Creek watershed. The project area also includes approximately 305 miles of cost-share roads through other ownerships, primarily on the Powell Ranger District.

Forest managers propose to control noxious weeds on up to 5,000 acres annually of National Forest lands in various locations throughout the project area. Site-specific resource objectives and goals would be consistent with the direction for the Upper Clearwater Basin Weed Management Area.

An Integrated Pest Management (IPM) approach would be used. This approach uses a combination of control methods which include **mechanical controls,** such as hand pulling weeds; **cultural controls,** including seeding and fertilizing disturbed areas; **biological controls** through the use of parasites and pathogens; and **chemical controls,** using herbicides. **No aerial applications of herbicides would occur.**

Initial or first-year treatments would not likely be 100 percent effective for weed controls since dormant seeds in existing populations germinate in following years. Therefore, follow-up treatments could be needed for up to the next ten (10) years. However, such treatments would likely be at reduced levels, especially where herbicides would be used.

The proposed treatment of up to 5,000 acres annually over the next ten years does not reflect the enormity of the noxious weed problem on the project area, or Idaho County as a whole. Every acre was not inventoried, so more weed populations undoubtedly exist than are identified in this document. Thus, it is highly likely that new sites will be discovered in each of the watershed ecosystems covered in this analysis. As additional infestations are discovered in the next ten years, each site would be evaluated to determine if the site would fit within the scope of this EA and then prioritized for treatment. Those sites selected for control would be treated using the parameters established under the analysis conducted within this EA. Treatment of additional sites would be under an adaptive strategy.

TRIBAL CONSULTATION

Early in project development, the Nez Perce Tribe offered their weeds coordinator to assist with the environmental analysis. This person represented the Tribe at interdisciplinary team (IDT) meetings. Consultation with the Tribe was formally initiated with the mailing of the project's Scoping Letter in July 2004. In 2006, Tribal personnel provided the IDT condensed maps showing completed weeds inventory on the Powell Ranger District. Prior to release of the environmental assessment, a meeting was held with Tribal sub-staff to update them on the progress of the project and the alternatives being considered. A follow-up letter was received from the Nez Perce Tribe saying they were comfortable with the project's design and that no further consultation was needed.

PUBLIC INVOLVEMENT AND ISSUE DEVELOPMENT

The public has been involved throughout the analysis process. Initial scoping efforts for control of noxious weeds on the Lochsa and Powell Ranger Districts began in 2004. Public comment was solicited formally with a scoping letter distributed to approximately 250 individuals and organizations on the Lochsa/Powell NEPA mailing list in July 2004. In addition, public comment was requested through the Clearwater National Forest's quarterly schedule of proposed actions, starting in October 2004.

During this scoping period, comments were received from fifteen (15) individuals and organizations. Analysis of those comments resulted in the following list of issues that guided the development of alternatives.

ISSUES

Four issues were identified during the scoping and public involvement phases of the analysis. Those included:

1. Effects on Water Quality and Aquatic Organisms

Several commenters indicated a concern that herbicides may inadvertently be sprayed near or across streams, affecting water quality and fish populations.

Much research has been done to determine the level (milligram per liter) at which 50 percent of a given population dies (Lethal Concentration = LC_{50}) and the time frame during which that occurs. Although LC_{50} is often used as toxicity standard, fifty percent fish mortality is unacceptable. For this reason, a better parameter to evaluate effects is the No Observable Effect Level (NOEL) or No Observable Effect Concentration (NOEC). Because there are frequently no long-term test results that provide safe concentrations for all chemicals, the EPA has recommended that the 96-hour LC_{50} be divided by 20 to set a standard for concentrations to protect aquatic species when NOEL or NOEC data are not available.

The analysis has several parts. First, the project area was delineated into watersheds. Average low flow values were determined for each watershed. Available information on each proposed herbicide was reviewed to determine the $LC_{50,}$ NOEL, or NOEC values for fish species in the project area. Using this information, the maximum acreage treatable while remaining below the recommended No Observable Effect Level (or equivalent) was calculated for each proposed herbicide by watershed. The total acres requiring treatment with a specific herbicide was compared with the maximum acres possible to be treated in each watershed. These lower limits were used as thresholds to help guide the proposed spray activities over the next decade.

Within the above calculations, many "worst case" assumptions were used to influence the indicators.

2. Education/Prevention

Some commenters were specifically concerned about developing and/or continuing prevention education programs to slow the rate of infestation of noxious and undesirable weeds.

As part of an Integrated Pest Management Strategy, and in cooperation with partners in the Upper Clearwater Cooperative Weed Management Area, the Lochsa and Powell Ranger Districts will implement and enforce practices that are shown to aid in the reduction of noxious and undesirable weed infestations.

Education efforts include weed identification classes, informational booths at county fairs, and public information outreach as well as briefings with contractors, volunteers, and other groups working on National Forest lands.

3. Human Risk

Some commenters were concerned about the impact on human health of weed control with herbicides.

The factors used to measure this issue are the potential effects from herbicide applications on project workers and visitors to the project area.

4. Use of Chemicals

Several commenters were concerned about the use of herbicides in a general sense.

Due to the nature of some weed species and the size of their populations, use of herbicides may be the only practical control method in the short term. These factors were included along with a variety of other concerns, i.e., water quality, fisheries, etc., to determine the appropriate use of chemicals.

ALTERNATIVES NOT CONSIDERED IN DETAIL

No other alternatives to the proposed action were suggested by the public. However, certain methods, suggested through field testing or public comment, were not considered in detail. For example, the use of goat grazing as a cultural control method was found best suited for site specific areas and conditions and was tabled for future analyses, and the suggested use of hand pulling weeds instead of an integrated approach was considered infeasible for a project of this size.

ALTERNATIVES CONSIDERED IN DETAIL

Following tribal consultation and public scoping, three alternatives were developed that were considered in detail, as follows:

Alternative 1 – No Action: This alternative would not result in a change in current noxious weed control activities within the project area. This alternative would continue current levels and methods of treatment, which include mostly chemical control, with some hand pulling and release of biological control agents at administrative sites and along Highway 12.

Alternative 2 – Mechanical, Biological, and Cultural Treatments: This alternative would use an integrated approach of mechanical, biological, and cultural treatments to control noxious and undesirable weeds. No herbicides would be used, except those currently being used at administrative sites and along Highway 12. Treatments such as hand pulling would be supplemented with cultural methods such as seeding, fertilizing, and planting.

Alternative 3 – Mechanical, Biological, Cultural, and Chemical Treatments: This alternative is the Proposed Action as described in Chapter 1 of the EA. This fully integrated approach would initially rely more heavily on chemicals (herbicides) and biological control to reduce weed populations significantly in some cases and to eradicate populations in other cases. Subsequent treatment would rely progressively less on these methods as larger populations were reduced.

Criteria Common to all Alternatives: Prevention elements such as information signing, web site messages, internal and external education and management requirements, and partnering efforts to prevent weeds would be part of all alternatives, including no action. Prevention measures discussed in the Best Management Practices (refer to Appendix J in the EA) will be implemented regardless of which alternative is chosen. Certified weed-free forage and straw is now required for use on all National Forest lands in the Lochsa and Powell Ranger Districts. Cleaning of equipment used for forest activities would be required before operating within all areas previously treated for noxious weeds or within areas currently considered weed-free. To prevent the establishment and spread of noxious weeds, all ground disturbances resulting from management activities would be revegetated with an appropriate mix of certified noxious weed-free seed, and fertilized as necessary. Cultural control would be considered for all sites following weed treatment. Every newly proposed project would be evaluated for the potential of spreading noxious weeds. The weed prevention Best Management Practices (BMPs) listed in Appendix J of the EA as well as other measures to halt the spread of noxious weeds would be implemented during the project planning process. Efforts to educate, inventory, and control noxious weeds with the Upper Clearwater Cooperative Weed Management Area partnership would continue, and all noxious weed control activities would comply with state and local laws and agency guidelines.

ENVIRONMENTAL CONSEQUENCES COMPARISON

	Alternative 1 **No Action (current noxious weed control activities)**	**Alternative 2** **Integrated Approach with No Chemicals**	**Alternative 3** **Integrated Approach with Chemicals**
Management Activity			
Acres of Bio-control Release Per Year	50	300	300
Acres of Mechanical/Cultural Treatment Per Year	100	100	100
Acres of Chemical Treatment per Year	Up to 400 acres at administrative sites and along U.S. Highway 12	Up to 400 acres at administrative sites and along U.S. Highway 12	Up to 5,000 acres primarily along roads and trails
Approximate Total Acres of Treatment per Year	550	800	5,400
Issue 1 – Effects on Water Quality and Aquatic Organisms			
Maximum Acres Treatable With Picloram Under NOEC[1]	3,916	3,916	3,916
Issue 2 –Education/Prevention			

[1] No Observable Effect Concentration. In this case, Picloram Acres are shown. In reality, very little picloram will be used. Clopyralid aminopyralid will be the common herbicide used. Picloram depicts the worst case scenario.

	Alternative 1 **No Action (current noxious weed control activities)**	**Alternative 2** **Integrated Approach with No Chemicals**	**Alternative 3** **Integrated Approach with Chemicals**
	Current prevention education programs would continue.	Same as Alternative 1	Same as Alternative 1
Issue 3 – Human Risk			
Effects on weed control workers	No change	Slight risk of skin and eye irritations, cuts, sprains, and bruises	Same as Alternative 2 – risk from herbicides insignificant
Effects on visitors or nearby residents	No change	No effect	Same as Alternative 2 – risk from herbicides insignificant
Issue 4 – Use of Chemicals			
Impacts on desired plant species	Decline in desired plant species in the long term – increase in noxious weeds	Decline in desired plant species in the long term – increase in noxious weeds	Potential short term impact to individuals – long-term benefits to desired plant species by reducing noxious weeds
Effects on wildlife	Potential long-term decline in forage habitat	Potential long-term decline in forage habitat	Higher likelihood of maintaining long-term forage habitat

COMMENTS ON THE EA

The EA was mailed to the Nez Perce Tribe for review and comments as well as to those persons and organizations who commented on the project during the scoping phase. Two comment letters were received during the formal comment period from the public: 1) Richard Artley and 2) Idaho Conservation League.

The comments from Richard Artley were mostly in opposition to the use of herbicides to control noxious weeds and suggested the use of "hand pulling" instead. The Idaho Conservation League recognized the need to control the spread of noxious weeds and to reestablish native species. However, they encourage the Forest Service to maximize the use cultural and biological control methods. Where chemicals are proposed, they recommended the use of biodegradable chemical herbicides. Some of their other recommendations are already being implemented or are included in this project's design, such as the cleaning of motorized equipment before and after riding on public lands, requiring stock users to use certified weed-free feed, planting native species on treated sites, and disseminating information on best practices that reduce the spread of noxious weeds.

SELECTED ALTERNATIVE

It is my decision to select Alternative 3, as described in the Lochsa Weeds EA. This decision will control noxious weeds primarily on roads and trails on National Forest lands within the Lochsa River and Middle Fork Clearwater River subbasins (outside of wilderness) and the Lolo Creek watershed. This fully integrated approach would initially rely more heavily on chemicals (herbicides) and biological control to reduce weed populations significantly in some cases and to eradicate populations in other cases. Subsequent treatment would rely progressively less on these methods as larger populations are reduced.

Weed Species Considered for Control Measures

Inventoried Noxious Weeds	
Common Name	*Scientific Name*
Black henbane	*Hyoscyamus niger*
Canada thistle	*Cirsium arvense*
Dalmation toadflax	*Linaria gentisfolia spp. Dalmatica*
Orange hawkweed	*Hieracium aurantiacum*
Spotted knapweed	*Centaurea maculosa*
Inventoried Undesired Weeds[2]	
Common Name	*Scientific Name*
Bull thistle	*Cirsium vulgare*
Common tansy	*Tanacetum vulgare*
Houndstongue	*Cynoglossum officinate*
Japanese knotweed	*Polygonium cuspidatum*
Oxeye daisy	*Chrysanthemum leucanthemum*
Perennial peavine	
St. Johnswort	*Hypericum perforatum*
Sulfur cinquefoil	*Pontentialla recta*
Yellow hawkweed	*Hieracium…*

Initial or first-year treatments will not likely be 100% effective for weed control, since dormant seeds in existing populations germinate in following years. Therefore, follow-up treatments could be needed for up to ten years. However, such treatments would likely be at reduced levels, especially where herbicides would be used.

Optimistic forecasting for the next five (5) years indicates that up to 5,000 acres could be treated annually. This alternative shifts control efforts from long-term biological control and monitoring to immediate control on primary travel routes and recreation sites.

[2] While these plants have not been officially or legally defined as noxious, they are exotic non-native plants with the ability to out-compete native vegetation.

Herbicide Control: The use of herbicides alone would occur on up to 5,000 acres per year. Nine herbicides (dicamba, aminopyralid, clopyralid, glyphosate products without surfactant, glyphosate products with surfactant, Triclopyrl TEA picloram, metsulfuron methyl, and 2,4-D amine) would be considered for application on various sites.

The use of each herbicide would depend on the weed species, level of infestation, location, other resource concerns, and applicability of the herbicide.

The application of herbicides would follow the Alternative 3 design criteria as well as the guidelines contained in EA Appendices H and I (attached). Application would be with a back-pack sprayer, hand-held sprayer, manual dispersal of pellets, or with a truck or ATV mounted power spray unit. **There would be no aerial application of herbicides.**

Mechanical Control: This treatment would be used annually on approximately 100 acres.

Biological Control: Biological control alone is proposed to be used on approximately 300 acres annually. Follow-up monitoring and additional releases of biological agents as needed would be conducted to ensure the biological agents become established over the entire infestation area.

Biological and Cultural Control: A combination of biological and cultural control treatments could be used as follow-up treatment on some sites based upon site-specific evaluation.

Mechanical and Cultural Control: This combination of treatments (seeding and fertilizing) would be used on those areas where hand pulling was successful.

Cultural Control: At this time, there is no proposal to use this treatment method alone. It would be used if determined to be effective in combination with either chemical and/or manual control based upon a site-specific evaluation.

Adaptive Strategy: All design criteria pertinent to Alternative 3 would apply to new treatment sites as well as to follow-up treatments on all sites within the watersheds listed. In addition, any herbicide use proposed on new treatment sites or as follow-up treatments on the sites would have to meet the parameters established by the interdisciplinary team.

The parameters would require that the combined treatments in any watershed result in a concentration of herbicide in surface water lower than the No Observable Effect Concentration (NOEC) rate for each given treatment year within each individual watershed. Where the NOEC for a specific herbicide was not available, the LC_{50} (LC_{50} refers to the concentration that is lethal to 50 percent of a given fish species exposed at that level for 96 hours) divided by 20 would be used as a standard for maximum treatment acres. The maximum number of acres that could be treated with a given herbicide in each watershed each year is displayed in EA Appendix I (attached). The methodology used in the determination of maximum treatment acres can be found in the project file.

If any proposed herbicide application would exceed the established parameters, treatment would be deferred – or an alternative weed control method would be employed. When a combination of herbicides is proposed for use, the maximum herbicide treatment acres for a given watershed would be those for the most restrictive herbicide.

Within the selected alternative, a number of mitigation measures or design features would be implemented. These include:

Pre-Project Implementation

1. The Forest would follow established guidelines and best management practices as stated in: (1) Forest Service Manual 2000 (2080) Noxious Weed Management; (2) Forest Service Soil and Water Conservation Practices Handbook (FSH 2509.22-13) Vegetation Manipulation; and (3) Idaho Forest Practices Act (IDPA 20, Title 02, Chapter 01, 060) Use of Chemicals and Petroleum Products.
2. A spill contingency plan outlined in Appendix E of the EA (attached) would be reviewed by the project coordinator prior to field work. Individuals involved in herbicide handling or application would be instructed on the spill contingency plan and spill control, containment, and cleanup procedures.
3. A pre-project review of all application areas would be completed by a designated wildlife and fisheries biologist or hydrologist and the project coordinator to discuss methods of application, herbicide products, and necessary herbicide restrictions which may be required. This would include the pre-project evaluation of riparian and surface water buffers.
4. The project coordinator would provide the designated aquatic monitoring personnel a spraying schedule several days in advance in order to set up and conduct the project monitoring.
5. Limited annual application of herbicide chemicals to below the Lethal Concentration (LC50), or No Observed Effect Level/Concentration (NOEL/NOEC) as determined by watershed (Appendix I). However, within any watershed listed in Appendix I (exception: mainstem Lochsa River segments), no more than 1,000 acres of federal herbicide application would occur annually.
6. No more than one application of picloram would be made on a given area within a site in any single year to reduce the potential for picloram accumulation in the soil.
7. No picloram would be used where there are coarse, sandy soils. Use of picloram would be allowed only once every two years to reduce accumulation in the soil. Application would be reduced to a rate of a maximum of 1.0 pounds/acre of picloram with spot treatment of no more that 50 percent of an acre (USDI-EPA 1995a).
8. No application of 2, 4-D ester formulations or triclopyr-BEE would be allowed.
9. The surfactant R-900 would not be used. R-11 would not be tank-mixed with Rodeo, Accord or Aquamaster.
10. No surfactants would be authorized for use within 15 feet of surface water or areas with shallow water tables.
11. Hi-light blue dye would be mixed at a minimum concentration with any herbicide sprays that would be applied 15 to 100 feet from surface waters.
12. No herbicide treatments would be conducted after July 31 in drainages that have documented bull trout spawning areas. Currently the only stream within the project area with substantial bull trout spawning on an annual basis is Waw'aalamnine (Squaw) Creek.
13. The Forest would have a licensed applicator directly supervising all herbicide treatments.

Field Preparation

1. A spill cleanup kit would be available at the temporary storage site and in all vehicles carrying herbicides.
2. Equipment used for transportation, storage, or application of herbicides would be maintained in leak-proof condition.
3. No herbicide mixing would be authorized within 100 feet of any live waters. Mixing and loading operations would have to take place in an area where an accidental spill would not contaminate a stream or body of water before it could be contained.
4. Only the quantity needed for the day's operations would be transported from the storage area.
5. In order to ensure accurate spot treatment and facilitate monitoring, a spray dye would be added to herbicide mixes to be applied 15 to 100 feet from surface waters. The colorizer is easily seen by the applicator, which aids in the accomplishment of two objectives: accurate application of the herbicide mix to the target weeds or weed areas, thus limiting overspray to non-target plants or weed-free areas; preventing repeat applications to previously sprayed weeds because treated areas are readily visible. The applicators would use a blue colorant which photo-degrades in approximately one week. This dye is added to the spray tank at approximately 8 fluid ounces per one hundred gallons of water.
6. Treatment areas would be posted prior to and following herbicide applications within areas of special concern. In addition, information on where and when spraying and other treatments would occur would be available at the Ranger District office.
7. Permittees would be notified in advance of treatments on their permit sites and advised of herbicide label requirements regarding use of treated lands.

Chemical Applications

1. All pesticide labels would be strictly enforced and other restrictions include the following:
2. Follow procedures for mixing, loading and disposal of herbicides outlined in EA Appendix E (attached).
3. Refer to Table 2.4 in the EA for maximum wind speed restrictions by herbicide application method.
4. Do not spray if precipitation is occurring or is imminent.
5. Do not spray if air turbulence is sufficient to affect the normal spray pattern.
6. Do not spray if snow or ice covers the target foliage.
7. During application, weather conditions would be monitored hourly by trained personnel at spray sites (i.e., wind speed, temperature, relative humidity). Additional weather and application monitoring would occur whenever a weather change could impact safe placement of the herbicide on the target area.
8. Herbicide applications would only treat the minimum area necessary for the control of noxious weeds.
9. All herbicide applications would be ground-based; there would be no aerial application of herbicides.
10. Herbicides would be applied by ground-based multiple or single nozzle applications (truck or ATV).

11. Only ground-based, spot/selective applications of herbicides rated as having a low level of concern for aquatic species would be authorized from 15 to 100 feet from live waters or within riparian areas (whichever is greater). Authorized spray equipment would include pickup and 4-wheeler mounted spray rigs, backpack sprayer, hand pump sprayer, hand-spreading granular formulations, and wicking (e.g. also includes wiping, dipping, painting, or injecting target species).
12. Application methods, appropriate buffers, and chemical restrictions listed in Table 2.4 of the EA would be followed.
13. No live water (e.g. ditches, streams, ponds, springs, etc.) would be sprayed with herbicides. Aquatically approved herbicides could be applied to areas within 15 feet of live waters.
14. Within 15 feet of live waters or areas with shallow water tables, only herbicides authorized for use would be aquatic approved herbicides (i.e., Rodeo™), and methods of control would include backpack sprayer, hand pump sprayer, wicking, wiping, dripping, painting, or injecting.
15. All applications within 15 feet of live water would be directed away from surface water.
16. No spraying of picloram would be authorized within 100 feet of surface water.
17. Proposed clopyralid spraying within the 15 to 100 foot riparian zone would be conducted using methods that eliminate the application (direct spray or drift) within 15 feet of surface water. Application methods, such as the spray systems used by a contractor and the Forest during the 2003-2006 roadside noxious weed control programs on the North Fork Clearwater River (refer to Branning's January 21, 2004, memo, located in the appendices of the Biological Assessment in the project file) or other suitable methods could be used.
18. Manual control (e.g. hand pulling, grubbing, cutting, etc.) would be authorized in all areas, and could be used in sensitive areas to avoid adverse effects to non-target species or water quality. All noxious weed disposal would be in accord with proper disposal methods. Noxious weeds with developed seeds would be bagged and burned.

Spray Distances from Known Threatened, Endangered, or Sensitive Plants

- < 25 feet – No chemical spraying. Only mechanical treatment.
- 25 to 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.

Project Monitoring

1. The project coordinator is responsible for the implementation monitoring, which includes assuring the provisions listed above are followed, and overseeing chemical applications.
2. The Forest Fisheries Biologist would be responsible for the effectiveness monitoring, which evaluates if the above mitigation and BMPs were effective. The monitoring plan (located in the project file) would be conducted by designated personnel (fisheries biologist, hydrologist, and biological technician). The overall objective of the project would be to determine if streams and/or aquatic organisms were exposed to herbicides used to control noxious weeds.

3. Water samples would be tested for the chemicals used. If levels above the No Observable Effect Concentration or their equivalent were found, further spraying would not occur in that watershed, and application practices would be modified.
4. Annually, a treatment summary would be prepared for weed treatments that took place over the preceding year. The report would document treatments that took place, methods used, acreage, evaluation of achievement of objectives, brief summary of unexpected effects, evaluation of compliance with this Biological Assessment, and the aquatic monitoring results. The data for the report would be extracted from the Forest Service national database. This summary report would be completed by March 31 of the following year. This report will be sent to the NOAA Fisheries and U.S. Fish & Wildlife Service with the next year's planned treatment project.
5. Annually, a list of the acres planned for treatment in the upcoming year would be provided to the regulatory agencies to determine if the planned treatments would be consistent with the effects analysis and determinations of the pending Biological Opinions.

Other Requirements

To be exempt from the prohibitions of Section 9 of the Endangered Species Act, the Clearwater National Forest and its cooperators must fully comply with the terms and conditions listed on pages 48-50 in the Biological Opinion submitted by the National Oceanic and Atmospheric Administration, located in the project file.

DECISION CRITERIA

I have made my decision based on:

1. a review of the EA, appendices, project file, and supporting information such as the Forest Plan,
2. how well the various alternatives meet the project's Purpose and Need, and
3. public comments we have received.

RATIONALE FOR THE DECISION

As stated in the EA, noxious and undesirable weeds are spreading on public lands at an alarming rate. The project's purpose is simple – minimize the spread of noxious weeds across a wide area and reduce noxious weed competition with native species. According to the scientific assessment of the Interior Columbia Basin, invading weeds can alter ecosystem processes including productivity, decomposition, hydrology, nutrient recycling, and natural disturbance patterns such as frequency and intensity of wildfires. Changing these processes can lead to displacement of native plant species eventually impacting wildlife and plant habitat, recreational opportunities, and scenic beauty.

On National Forest System lands, the Forest Service is responsible for promoting healthy ecosystems while providing for a diversity of plant and animal communities, long-term sustainability of natural resources, and future opportunities for public use and continued ecosystem restoration. A review of noxious weed surveys conducted within the Lochsa and Powell Ranger District have demonstrated that weed infestations are a serious problem within the areas affected and are becoming detrimental to ecosystem health and diversity. I believe

that Alternative 3 is an aggressive, integrated, adaptive program that will slow the spread of large infestations, eliminate new invaders, and prevent or limit the spread of weeds into areas that are currently free of or have limited infestations. This alternative best meets the intended objective of preventing the introduction, reproduction and spread of designated noxious weeds and invasive exotic plants. It helps implement an integrated management strategy using all appropriate methods of treatment available.

While some commenters were concerned about the continued use of chemicals for noxious weed management, it must be made clear that some noxious and invasive species such as the knapweeds and hawkweeds will never be eliminated from our ecosystem. Thus our goal is to reduce the size of existing infestations and to prevent or limit their spread to uninfested areas. This will require continuing use of chemicals, but I believe the amounts of herbicide prescribed for use at each site combined with the safety measures that will be utilized will ensure the negative effects of chemical use will remain at undetectable levels.

I believe the strategies outlined in Alternative 3 for control, treatment and monitoring of infestations will allow us to make significant progress in limiting the spread of existing weeds and new invaders while helping us reduce the threats to our ecosystems currently and in the future.

I did not select Alternative 1 (the No Action alternative) as this represents the current level of weed management activity and has been shown to have limited success over the past several years. Even though this alternative includes the continued administrative use of chemicals, infestations outside these areas remain largely unaffected and will continue to grow and spread into uninfested areas. Alternative 2 was not selected as this alternative would only provide for very limited control activities thus eliminating the aggressive, integrated strategy I believe is needed to make inroads into our weed populations. While the combination of mechanical, biological and cultural treatments would provide for some relief of weed infestations, these methods alone have shown limited success in the past and are likely to be inadequate for the treatment of large and aggressive infestations.

CONSISTENCY WITH OTHER LAWS, REGULATION OR POLICY

Numerous laws, regulations and agency directives require that my decision be consistent with their provisions. I have determined that my decision is consistent with all laws, regulations and agency policy relevant to this project. The following discussion is not all inclusive; rather, it is intended to address issues raised through comment as well as to ensure consistency of the decision within the larger legal framework.

National Environmental Policy Act (NEPA) – This law insures that high quality environmental information is available and disclosed to public officials and citizens before decisions are made and before actions are taken. Scientific analysis and public scrutiny are essential in complying with NEPA requirements. I have met these requirements by using a knowledgeable and skilled interdisciplinary team to develop and analyze the proposed action and alternatives. Public involvement was key in identifying issues and continued throughout preparation of the EA. State agencies, special interest groups/organizations, and individuals provided comments to the EA. I have considered their comments in reaching my decision. I find the selected alternative in compliance with the National Environmental Policy Act.

National Forest Noxious Weed Management Policy (FSM 2080-2083) – I believe that Alternative 3 is consistent with National Forest Noxious Weed Management Policy which requires District Rangers to prevent the introduction and establishment, and provide for the containment and suppression, of noxious weeds; and to cooperate with State agencies. This policy is consistent with the Federal Noxious Weed Act of 1974, as amended (7 USC 2801 et seq.)

Endangered Species Act (ESA) – Forest specialists evaluated Alternative 3 with regard to threatened and endangered plant and animal species. Their findings are summarized in the EA (pages 32-35) and in the Biological Assessment and Biological Evaluation (project file). The project also meets the standards and guidelines for noxious weed control activities contained in the U.S. Fish and Wildlife Service's Biological Opinion (July 19, 2007) for effects to bull trout, as well as effects to Canada lynx, bald eagle, and gray wolf. Also received was the National Oceanic and Atmospheric Administration Biological Opinion (October 3, 2007) for effects to Snake River Basin steelhead. Based on these findings, I believe Alternative 3 is consistent with the ESA.

Clean Water Act – Based on the measures outlined in the EA to protect soil and water resources (EA pages 17-20 and Appendices E, F, & J) and the Soils, Water Quality and Fisheries Analysis (pages 35-72), I believe Alternative 3 meets the intent of the Clean Water Act.

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

Forest Plan Consistency – Management activities are to be consistent with the Forest Plan [16 USC 1604(i)]. The Forest Plan guides management activities [36 CFR 219.1(b)]. This project is consistent with Forest Plan, Regional and National direction.

Resource Protection – The following 12 statements address resource protection requirements of NFMA:

1. Alternative 3 conserves soil and water resources and does not allow significant or permanent impairment of the productivity of the land (EA pages 36-46).
2. Within the scope of the project and consistent with the other resource values involved, activities will minimize risks from serious or long-lasting hazards (EA, Chapter 3).
3. The purpose of this project is to prevent or reduce serious, long-lasting hazards and damage from pest organisms, utilizing principles of integrated pest management (EA pages 1-3).
4. Alternative 3 will protect bodies of water (EA page 20 and Appendices E and F).
5. Alternative 3 will provide for and maintain a diversity of plant and animal communities by reducing displacement of native plant species (EA pages 30-34).
6. Alternative 3 will maintain sufficient habitat for viable populations of existing native vertebrate species (EA pages 32-34, BA/BE).
7. The EA assesses potential physical, biological, aesthetic, cultural, engineering and economic impacts of Alternative 3 and it is consistent with multiple uses planned for the area.

8. Alternative 3 prevents the destruction or adverse modification of critical habitat for threatened and endangered species (EA pages 32-34, 84-87, BA/BE).

9. There are no right-of-way corridors capable or likely to be needed to accommodate the project.

10. There is no road construction associated with this project.

11. No temporary roads will be built.

12. Applicable Federal, State and local air quality standards will be met.

Riparian Areas, Soil and Water – All riparian areas, soil and water will be protected as described in the EA (EA pages 17-20 and Appendix F).

Diversity – The purpose of this project is to preserve and enhance the diversity of plant and animal communities by reducing and limiting the spread of noxious weeds (EA pages 1-2). Alternative 3 is consistent with this objective.

Executive Order for Environmental Justice – In regards to Environmental Justice Executive Order 12898, the human health and environmental effects of the selected alternative will not disproportionately impact minority and low income populations. Also, the implementation of this project will not subject anyone to discrimination because of race, color, or national origin. The selected alternative complies with Executive Order 12898.

National Historic Preservation Act (NHPA) - The National Historic Preservation Act of 1966 (as amended) requires that Federal Agencies with direct or indirect jurisdiction over Federal, federally assisted, or federally licensed undertakings to consider the effects of their proposed actions on historic properties and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings. The detailed formal process for meeting this requirement is found in Title 36 Chapter 800 of the Code of Federal Regulations (36CFR800). This process includes requirements for identification and evaluation of historic properties, assessment and resolution of effects, consultation with the Advisory Council, State Historic Preservation Offices, Tribal governments and others, and coordination with NEPA.

In consultation with the Nez Perce tribe and in compliance with Section 106 (36 CFR 800) of the National Historic Preservation Act, the Clearwater National Forest has determined that the project has no potential to effect heritage resources.

FINDING OF NO SIGNIFICANT IMPACT

Summary of Environmental Assessment

The selected alternative, as described on page 1 of this document, will implement an integrated strategy for control of noxious weeds using mechanical, cultural, biological and chemical control. The purpose of the project is to control noxious and undesirable weed infestations on all National Forest System lands within the Lochsa River and Middle Fork Clearwater River subbasins (outside of wilderness) and the Lolo Creek watershed. The approximately 5,000 acres proposed for treatment annually represent less than one percent of the National Forest System lands administered by the Lochsa and Powell Ranger Districts.

Key issues are discussed on pages 4-5 of this document and on pages 7-8 of the EA. They are 1) effects on water quality and aquatic organisms, 2) education/prevention, 3) human risk, and 4) use of chemicals.

Alternatives considered include: Alternative 1 – No Action – continuing current noxious weed control activities at administrative sites and along Highway 12; Alternative 2 – Integrated Treatments with Non-Chemical Control, except those currently being used at administrative sites and along Highway 12; and Alternative 3 – Integrated Treatments with Chemical Control. These are described fully on pages 5-7 of this document and on pages 10-20 of the EA.

Summary of Impacts

Water Quality and Aquatic Organisms: There will be no detectable changes in water quality in the drainages proposed for treatment. Herbicide concentrations in streams are expected to remain under the No Observable Effect Level or Concentration for all herbicides analyzed. Therefore, no significant effects to aquatic organisms should be observed as a result of this project. Individual drainages have a specific maximum allowable acreage to be treated annually (see Appendix I attached). The likelihood that high aquatic concentrations would exist is very low (EA page 68). In fact, it is unlikely that any herbicide would be detected in stream water as a result of proposed herbicide application because of the low level of herbicide use and the herbicide application requirements.

Combined with the design criteria listed in Chapter 2 and herbicide application guidelines in EA Appendix E (attached), use of these parameters would protect aquatic resources from potential effects of herbicide treatment. No adverse effects to soils, water quality or aquatic resources would be expected to occur from future herbicide application under the adaptive strategy.

Vegetative and Biological Community Diversity: There may be short term potential impacts to individual desired plant species; however, there will be long term benefits by reducing competition from noxious weeds (EA pages 30-31). Chemical treatment of noxious weeds is not likely to have an adverse effect on sensitive plant species; in fact, removal of competing species is likely to improve habitat for colonization by sensitive species (EA page 34). There is a higher likelihood of maintaining forage habitat for wildlife species with Alternative 3 (EA page 86) and it has the highest predicted effectiveness for controlling weeds thus preserving the native plant community diversity. Chemical treatment of noxious weeds is not likely to have an adverse effect on Threatened and Endangered species and is consistent with the Forest Plan (EA page 87). No significant impacts are anticipated on desired vegetative and biological community diversity.

Potential Effects on Human Health: Negative risks from herbicide use on weed control workers and effects on visitors or nearby residents would be insignificant. Using the proper personal protective equipment, giving the proper care and attention to mixing, loading, and application of herbicides all greatly reduce the risk of negative direct effects from exposure. Similarly, the risk of indirect exposure to people hiking through a recently sprayed area would be low. Based on the best scientific information available, we would reasonably expect that human health impacts from herbicide applications on the proposed sites would be insignificant (EA pages 74-78).

Significance Findings

Based on a review of the EA and the project file, I find that this decision is not a major federal action that would significantly affect the quality of the human environment, either individually or cumulatively with other activities in the general area. Therefore, an environmental impact statement (EIS) is not needed. This finding is based on the following factors set forth in 40 CFR 1580.27.

Context: This project is a site specific action that by itself does not have international, national, region-wide or state-wide importance. The actions involved in this decision are consistent with the management direction contained in the Clearwater National Forest Plan.

Intensity: Impacts from this site specific project are both beneficial and adverse, but not significant. The adverse effects on some non-target plant species will be short term in nature and will not impair land productivity. The long term effects are considered to be beneficial.

The degree to which the selected action affects public health and safety: As defined in the Federal Noxious Weed Act of 1974, a noxious weed "can directly or indirectly injure crops or other useful plants, livestock, or fish and wildlife resources of the United States, or the public health." Of the alternatives considered, the selected alternative would treat the most acres infested with noxious weeds and likely benefit public health and safety.

Unique characteristics of the geographic area: The project will have no effect on historic sites, park lands, prime farm lands, wetlands or ecologically critical areas. There are no known cultural resources that will be directly affected by implementation of the selected alternative.

The degree to which the effects on the quality of the human environment are likely to be highly controversial: The effects of the project are limited to the Lochsa and Powell Ranger Districts (outside of Wilderness). To the majority of respondents, the effects are non-controversial.

The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks: The adverse effects will be short term and will involve no unique or unknown risks. The selected actions are common and have been employed in the past on similar sites and habitats (i.e. similar analyses were completed and implemented on the North Fork and Palouse Ranger Districts).

The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration: This decision does not set any future precedents for other actions which may have a significant effect.

Whether the action is related to other actions with individually insignificant but cumulatively significant impacts: Cumulative effects were considered for all resources pivotal to the analysis in Chapter 3, and for all activities relating to noxious weed treatment on adjacent districts and other ownerships. No significant negative cumulative effects were discovered.

The degree to which the action may adversely affect any items eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural or historical resources: A heritage review of the analysis area found the project to have no potential to effect heritage resources per 36 CFR 800.3(a)(1).

The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973: In the Biological Assessment (project file), it was determined that the selected alternative would have **no effect** on fall chinook salmon; **may effect – likely to adversely affect** steelhead trout and bull trout; would **not adversely affect** essential fish habitat; and have **no effect** on gray wolf, bald eagle, and lynx.

Whether the action threatens a violation of Federal, State or local law, or requirements imposed for the protection of the environment: The selected actions will not violate any Federal, State or local law, or requirements imposed for the protection of the environment.

APPEAL PROVISIONS

This decision is subject to appeal pursuant to 36 CFR 215. A written Notice of Appeal must be postmarked or received within 45 days following the publication date of the legal notice of this decision in the Lewiston Tribune, Lewiston, Idaho. It is the responsibility of the appellant to ensure their appeal is received in a timely manner. The publication date of the legal notice of the decision in the Lewiston Tribune is the *exclusive* means for calculating the time to file an appeal. Appellants should not rely on date or timeframe information provided by any other source.

Paper appeals must be submitted to:

USDA Forest Service, Northern Region
Federal Building, 200 Broadway
ATTN: Appeal Deciding Officer
P.O. Box 7669
Missoula, MT 59807
FAX: (406) 329-3411
Business Hours: 7:30 AM to 4:00 PM (Mountain Time)

Electronic appeals must be submitted to: appeals-northern-regional-office@fs.fed.us

In electronic appeals, the subject line should contain the name of the project (Lochsa Weeds) being appealed. An automated response will confirm your electronic appeal has been received. Electronic appeals must be submitted in MS Word, Word Perfect, or Rich Text Format (RTF).

The appellant must have submitted comments during the 30-day comment period of the EA, and it is the appellant's responsibility to provide sufficient project- or activity-specific evidence and rationale, focusing on the decision, to show why my decision should be reversed. The appeal must be filed with the Appeal Deciding Officer in writing. At a minimum, the appeal must meet the content requirement of 36 CFR 215.14, and include the following information:

- The appellant's name and address, with a telephone number, if available;
- A signature, or other verification of authorship upon request (a scanned signature for electronic mail may be filed with the appeal);

- When multiple names are listed on an appeal, identification of the lead appellant and verification of the identity of the lead appellant upon request;
- The name of the project or activity for which the decision was made, the name and title of the Responsible Official, and the date of the decision;
- The regulation under which the appeal is being filed, when there is an option to appeal under either 36 CFR 215 or 36 CFR 251, subpart C;
- Any specific change(s) in the decision that the appellant seeks and rationale for those changes;
- Any portion(s) of the decision with which the appellant disagrees, and explanation for the disagreement;
- Why the appellant believes the Responsible Official's decision failed to consider the substantive comments; and
- How the appellant believes the decision specifically violates law, regulation, or policy.

If an appeal is received on this project, there may be informal resolution meetings and/or conference calls between the Responsible Official and the appellant. These discussions would take place within 15 days after the closing date for filing an appeal. All such meetings are open to the public. If you are interested in attending any informal resolution discussions, please contact the Responsible Official or monitor the following website for postings about current appeals in the Northern Region of the Forest Service: http://www.fs.fed.us/r1/projects/appeal_index.shtml.

IMPLEMENTATION

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

Detailed records of the environmental analysis are available for public review at the Lochsa Ranger District Office, Rt. 1 Box 398, Kooskia, ID 83539. For further information about this decision, contact:

Craig Trulock Lochsa Ranger District Rt. 1 Box 398 Kooskia, ID 83539 ctrulock@fs.fed.us (208) 926-4274	Chad Benson Powell Ranger District Lolo, MT 59847 cwbenson@fs.fed.us (208) 942-3113	George Harbaugh, IDT Leader Lochsa Ranger District gharbaugh@fs.fed.us (208) 926-4274

SIGNATURE AND DATE

_____ _____

TOM REILLY
Forest Supervisor
Clearwater National Forest
(208) 476-4541

Date

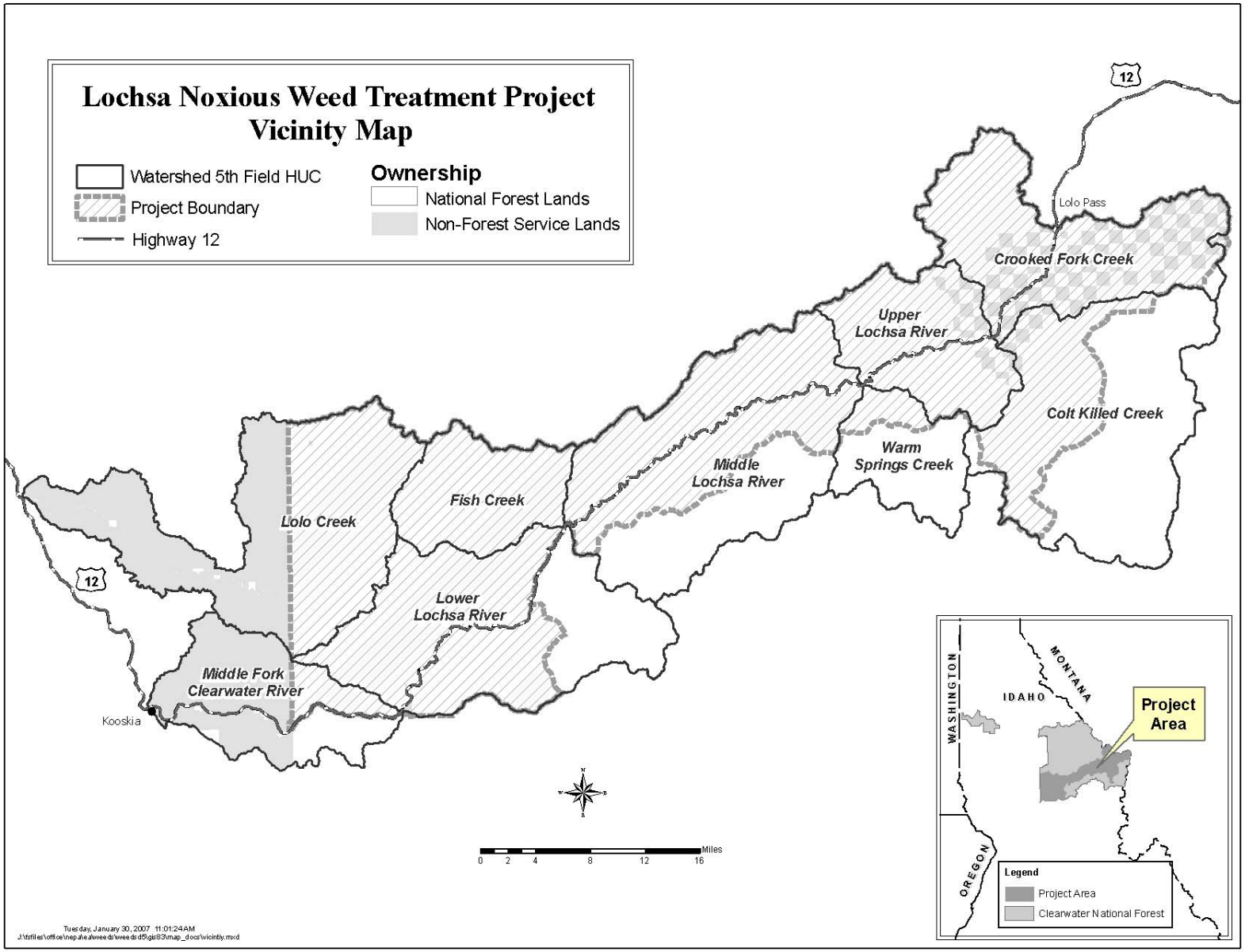
Attachments:

Vicinity Map

Appendix E – Spill Plan and Handling of herbicides

Appendix H – Determination of Predicted Success Rates for Alternatives 1, 2, and 3

Appendix I – Determination of Maximum Acres Annually Treatable



Lochsa Noxious Weed Treatment Project
Vicinity Map
Watershed 5th Field HUC
Project Boundary
Highway 12
Ownership
National Forest Lands
Non-Forest Service Lands
12
Lolo Pass
Crooked Fork Creek
Upper Lochsa River
Colt Killed Creek
Warm Springs Creek
Middle Lochsa River
Fish Creek
Lolo Creek
Lower Lochsa River
Middle Fork Clearwater River
Kooskia
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WASHINGTON
MONTANA
IDAHO
OREGON
Project Area
Legend
Project Area
Clearwater National Forest
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