

EA No. OR120-97-11

ENVIRONMENTAL ASSESSMENT OR120-97-11

**A Proposal To Conduct An Integrated Noxious Weed Program
On The Coos Bay District Of The Bureau Of Land Management**

Proposed This 4th Day of August 1997

This action is tiered to the *Northwest Area Noxious Weed Control Plan Environmental Impact Statement* (FEIS-December 1985), its *Record of Decision* (ROD-April 7, 1986), the *Supplemental Environmental Impact Statement* (SEIS-March 1987), its *Record of Decision* (ROD-May 5, 1987), and the *Vegetative Treatment on BLM lands* (in Thirteen Western States - May, 1991) *Environmental Impact Statement* (FEIS-May 1991), its *Appendix* (May 1991), and its *ROD* (July 1991). This action is in conformance with the *Coos Bay District Resource Management Plan* (RMP), its *Environmental Impact Statement* (EIS), and the *ROD* (BLM, 1995), and is in conformance with the *Final Supplemental Environmental Impact Statement on Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl* and its *ROD* (Northwest Forest Plan-Interagency, 1994).

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Section I - Purpose of & Need for Action

Need and Purpose

The Coos Bay District (CBD) of the Bureau of Land Management (BLM) proposes to carry out an integrated noxious weed program by continuing and expanding our eradication and control efforts. Certain noxious weeds (gorse, brooms, knapweed, tansy, thistles) have invaded and/or become firmly established in areas of the district. As a result serious impacts may occur, to resources (ex. timber stands, wetlands, wildlife habitat, and native plant communities), and increase if control measures are not used. In some of these areas noxious weeds are just beginning to get a foothold. Control measures are needed immediately or future control efforts and costs will dramatically increase.

The objective is to implement the Northwest Area Noxious Weed Control Plan FEIS-1985/ROD-1986 and the SEIS/ROD-1987, according to stipulated priorities for weed control. The primary goals are to restore, enhance, and maintain ecological functions and biological productivity of public lands. The major goals are to control/eradicate targeted noxious weeds, alter the habitat that supported these weeds in the first place, and to encourage the reestablishment of native plant species. Close contact should be maintained with ODA and County noxious weed coordinators to ensure cooperation and coordination in noxious weed control efforts.

The purpose of this EA is to:

1. Meet environmental concerns and legal requirements for controlling noxious weed expansion on or introduction to public lands.
2. Supersede district documents that address noxious weed control.
3. Assess potential environmental impacts that may result if the Proposed Action Alternative is carried out.
4. Document the decision making process.

Background

BLM's main authority and direction for controlling noxious weeds are: *The Federal Land Policy and Management Act of 1976* (43 USC 1700 et. seq.), *Federal Noxious Weed Act of 1974* (7 USC 2801-2813) as amended by Section 15, *Management of Undesirable Plants on Federal Lands*, 1990 (PL 93-629), and *Carlson Foley Act of 1968* (PL 90-583). All these documents direct that weed control activities must occur on federal lands, while Department and BLM Manuals give policy and guidance. Also, State/County laws require federal agencies controlling public lands to be responsible for weed control.

This proposal is consistent with and will meet objectives for active control measures as set forth in

the *Northwest Area Noxious Weed Control Plan Final Environmental Impact Statement* (FEIS-December 1985) with *Record of Decision* (ROD-April 7, 1986), *Supplemental Environmental Impact Statement* (SEIS-March 1987) with *ROD* (May 5, 1987), the U.S. 9th Circuit Court implementation date of April 7, 1988, the *Noxious Weed Strategy for Oregon/Washington* (August 1994), and *Partners Against Weeds* (January 1996). Copies of these documents are available for review at the CBD Office and many public libraries, and are hereby incorporated by reference.

The noxious weed sections and expanded list of EPA approved herbicides, found in the *FEIS* for *Vegetative Treatment on BLM lands* (in Thirteen Western States - May, 1991), its *Appendix* (May 1991) and *ROD* (July 1991), are incorporated. The expanded list of herbicides (see Appendix 2) will only be incorporated after review and approval from the Solicitors Office, U.S. Justice Department, and 9th U.S. Circuit Court. Their application will be as stipulated in the Proposed Action Alternative 1 of the *Vegetative Treatment on BLM Lands FEIS* (May 1991 and *ROD* July 1991).

The *Coos Bay District Resource Management Plan* (RMP) and *Environmental Impact Statement* (EIS) and its *ROD* (BLM, 1995), incorporated by reference are in conformance with the *Final Supplemental Environmental Impact Statement on Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl* and its *ROD* (Northwest Forest Plan-Interagency, 1994), incorporated by reference. BLM's program is integrated with other land ownerships through the Oregon State Department of Agriculture (ODA) which furnishes overall priorities and treatment prescriptions. See Appendix 3 for Oregon States Noxious Weed Priority List based on A, T, and B priority categories.

Geographical Area

Coos Bay District is located in the southwestern coastal portion of Oregon with approximately 329,700 acres of land in four counties (Coos, Curry, Douglas, and Lane). A description of the district and its planned management activities is covered in the *Coos Bay District Resource Management Plan* (RMP) and *Environmental Impact Statement* (EIS) and its *ROD* (BLM, 1995).

Current Noxious Weed Conditions

Noxious weeds are present throughout the district. Infestations vary, depending on weed species, and range from a few isolated plants to large areas. Weed species of most concern are Scotch broom, French broom, gorse, and purple loosestrife.

Scotch broom occurs across the entire district with large/heavy infestations in the north-half of the district (Umpqua River drainage). Farther south infestations become lighter and more scattered (although in some areas infestations can be large). This species is still thought to be spreading.

French broom is mostly in Coos County with large infestations in the Coquille River drainage and along the coast. This species is thought to be spreading faster than Scotch broom.

Gorse is most common in Coos and Curry Counties along the coast. More isolated occurrences are being found on BLM lands inland, most likely spread by heavy equipment use. New River ACEC has scattered locations of gorse present.

Purple loosestrife is only known to occur on BLM lands at the Dean Creek Elk Viewing Area. Control efforts are hampered because of many sites along the main stem of the Umpqua. Due to the lack of open wetland habitat, other sites are not expected to be located on district lands.

Other weed species, such as tansy, Canada and bull thistles, and St. Johnswort, occur along roadsides and in disturbed areas. These types of weed species are infestations that are at or below accepted management levels and considered to pose few risks to resources.

Issues, Concerns, And Opportunities

No request for information, notification, or public interest was expressed in response to CBD's Fall 1996/Spring 1997 *Planning Update* publication which included this EA. Issues, concerns, and opportunities (henceforth called issues) were identified and covered in the Northwest Area Noxious Weed Control Plan's FEIS-December 1985 and SEIS-March 1987.

Alternative Identified and Eliminated From Further Analysis

The alternative of No Action (defined as no noxious weed control efforts being applied to public lands) is not viable due to requirements by Federal, State, and County regulations and laws that mandate active control measures for known and newly discovered noxious weed populations. Noxious weed expansion or invasion into native plant communities (or a reduction in biodiversity) is against BLM policy and mandates set forth in Manual Sections 9011 (and handbook H-9011-1), 9014, and 9220. This reduction of biodiversity results in negative impacts to all wildland resources but directly affects native vegetation, wildlife habitat, and recreational needs.

Permits and Licenses

Permits/licenses needed for the Proposed Action will be obtained by the responsible parties.

Section II - Description of the Proposed Action

Proposed Action

The Proposed Action incorporates stipulations, mitigation's, and guildlines for noxious weeds from the plans referenced under the "Background" section of this document. This Proposed Action

continues an integrated weed management program, as described in the preferred alternative of the *Northwest Area Noxious Weed Control Plan* FEIS, by using appropriate combinations of mechanical, manual, chemical, and biological methods for noxious weed control. The program will be performed using priorities addressed below and will be done within the district budget, funding, and planning limits. Appendix 1 has legal descriptions, treatment methods for specific sites, and site maps.

Programmatic Priorities

Priority # 1 - Prevention of Potential New Invaders

This priority emphasizes increased and continuing education of BLM employees, the public, and contractors to create an awareness of existing noxious weeds and potential invaders into southwest Oregon. ODA will help with the educational process and on an annual basis BLM provides information, on control programs and potential needs, to ODA and County weed control personnel. Once a new invasion is documented that noxious weed falls into a Priority 2 category and actions prescribed for Priority 2 invaders will be taken.

Emphasis will also be directed to carry out procedures to reduce or prevent potential spread of noxious weeds from known locations by BLM employees, contractors, and the public. (See Appendix 6 for the district's weed prevention techniques). Techniques include:

1. Provide literature/educational opportunities at the district office, recreational sites, and through cooperative programs.
2. Require BLM's contractors to clean equipment before moving onto public land, and before moving from an infested to a non-infested area within public lands.
3. Request private individuals/companies to clean equipment before moving onto public land and before moving from an infested to a non-infested area within public lands, under BLM's rights-of-way and small sales programs.
4. Revegetate disturbed areas as soon as practical. Require certified noxious weed free seed/hay/mulch for these sites.
5. Evaluate current vegetation management practices and carrying out technically feasible practices to maintain/restore a healthy desirable plant community.

Priority # 2 - Eradication of New Invaders

New Invaders become the highest priority for treatment where prevention fails. Primary methods include biological, chemical, manual and mechanical treatments. CBD will emphasize "appropriate prompt treatment," including multi-year follow-up surveys/treatments to ensure eradication before invading noxious weeds spread to a point where eradication is not possible or

cost effective. Sites needing rehabilitation will be identified and treated with competitive plant species, using native species when possible. As treatment monitoring and Integrated Pest Management techniques are evaluated additional methods may be employed. Training and education will continue for personnel on state-of-the-art weed control methods.

Priority # 3 - Established Infestations

Here certain noxious weeds have become so established or spread to the extent that eradication is not practical or economically possible. Emphasis would be on containing existing main population(s), with highest priority on treatment of new/eradicateable satellite populations. Biological control will be emphasized on main infestations, when effective agents are available. Other control measures may be considered if those measures are practical and cost effective. Outlying populations will most likely be treated as Priority 2's.

Oregon State Department of Agricultural Priorities

Priorities will be addressed by the Oregon State Department of Agricultural noxious weed list, designating weeds into A, T, and B lists (see Appendix 4). The "A" list contains weeds making an economic impact and occurring in the State in small enough infestations to make eradication or containment possible, or is not known to occur in the State but its presence in neighboring states make future occurrence in Oregon imminent. "A" list infestations are subject to intensive control when and where found. Noxious weeds on the "T" list are designated by the State Weed Board as a target species on which the Department will implement a statewide management plan. The "B" list includes weeds of economic importance that are regionally abundant, but may have limited distribution in some counties. Where a fully-integrated statewide management plan is infeasible, biological control will be the main approach. The "B" list is limited to intensive control at state or county levels on a case-by-case basis.

District Priorities

Noxious-weed-control inventory, implementation, and monitoring will be conducted on:

1. Potential new invaders anywhere on district.
2. Small isolated or satellite populations of new invaders or from existing infestations.
3. Noxious weed sites that threaten resources (ex. LSR-objectives, threatened and endangered plant sites or wildlife habitats, and plantations).
4. Areas where management activities, public use, or natural drainages have high potential to facilitate/increase spread of noxious weeds (ex. recreation sites, main roads, quarries/rock storage sites, powerlines, and ditches/perennial drainways).

5. Large infestations and on all remaining public lands.

Treatments/Design Features

Principle Design Features of Proposed Action

Efforts will be focused on both preventive actions and on treatments of weeds themselves. Mitigation measures adopted in the *Northwest Area Noxious Weed Control Plans* FEIS and SEIS, and their ROD's, and the noxious weed portion of the FEIS for *Vegetative Treatment on BLM lands* (in Thirteen Western States - May, 1991), its *Appendix* (May 1991) and the *ROD* (July 1991) are incorporated as part of the Proposed Action and project application design features. The most restrictive design feature from these documents applies. Additional features or features felt to be of special concern follow:

Design Features Common to all Actions

1. BLM will monitor noxious weed control projects with special emphasis on chemical and biological control efforts. If needed, as a result of monitoring, modifications to actions in site specific areas would be proposed, and further environmental assessment or public disclosure would be made. The following forms will be applied as required (See Appendix 5 for a table showing monitoring types, method/time, and attributes evaluated. These will help detect success, failure, or other impacts of projects):
 - A. Pesticide Use Proposal (PUP) and Pesticide Application Record (PAR).
 - B. Biological Control Agent Release Proposal (BCARP) and Biological Control Agent Release Record (BCARR).
 - C. District monitoring/evaluation forms and maps showing location of projects.
2. Surveys will be conducted on proposed treatment areas for special status plant or animal species (including threatened and endangered) that may be affected by the project. Any plant or animal found would be protected as recommended.
3. Cultural resource surveys will be conducted on proposed treatment areas requiring extensive digging or surface disturbance (this mostly applies to mechanical control).
4. Treatment types may be limited on lands with Special Management Area designation, special status plants or animals (including threatened or endangered), critical wildlife habitat, riparian-wetland areas, or where domestic water may be contaminated.
5. Dyes approved for use with herbicides may be employed to help obtain uniform coverage and reduce the probability of treating non-target species. This should lessen the chance of under-treatment or over-application, and help monitor drift.

6. Only treatment methods that target individual noxious weed plants will be done in riparian and wetland areas.
7. Disturbance to soil, impacts to riverbank stability, or changes to floodplain vegetation and vegetative buffers will be kept to a minimum.
8. Treatments must not hinder obtaining Aquatic Conservation Strategies.
9. Picloram will not be applied in or near aquatic environments.
10. Monitoring of treatment sites should occur yearly. Post-treatment monitoring and evaluations are subject to available people and funding. Monitoring should cover: Effectiveness on target species, impacts to non-target vegetation limited, mitigation measures met, and meets the general objective for each treatment area. When a site shows no evidence of noxious weed regrowth it should be monitored for 3 years in a row. Then, if there is still no sign of noxious weeds, monitoring would occur at 3, 5, 8, and 10 years intervals. If, during this monitoring interval, a site is deemed to be rehabilitated from noxious weed concerns then monitoring can cease.
11. Sites should be retained on record. If a site disturbance occurs then monitoring (as discussed in #10 above) should be reinstated until the site is again rehabilitated.

Preventive Actions

Practices summarized below are described in further detail in Appendix 4 to the *Noxious Weed Strategy for Oregon/Washington* (BLM, August 1994). They are designed to prevent introduction or establishment of noxious weeds, or to reduce spread of existing infestations. These practices are a key component of the program and are considered the most effective and least expensive, in the end. They will be employed wherever possible to reduce the risk of unknown sources of contamination, reduce spread and seed sources, or identify new infestations.

Preventive Application Design Features

1. Clean heavy equipment before moving onto BLM lands/before changing geographic areas.
2. Require weed free mulches for soil stabilization or erosion control projects.
3. Only apply certified weed free seed on public land projects.
4. Reclaim disturbed sites/areas when practical with BLM approved seed mixtures.
5. Limit, restrict, or discourage recreational use, especially ORVs, on infested areas.
6. Monitor vegetation manipulation and revegetation projects (i.e., prescribed fire areas, timber harvest activities, silvicultural practices, and other disturbed sites like rock pits or

gravel storage areas) for noxious weed infestations, and initiate control efforts as needed.

Biological Practices

This practice involves either introduced or natural competition and can include insects, pathogens, grazing, and other competitive plant species (See Appendix 3 for a list of ODA approved insects/pathogens). Most BLM priority weeds do not have effective ODA approved biological control agents available for control efforts. District application of approved Biological Control Agents can be found in the BLM/ODA contract #1422H952-C97-2012 (hereby incorporated by reference) and will be closely coordinated with ODA. These agents have met environmental testing criteria for host species (an EA is on file with USDA and ODA). Biological Control Agents involve a long process since their affect and spread is slow and are employed for slowing the spread and the control of larger well established populations. Eradication is not possible using biological control agents alone.

Biological Application Design Features

1. Biocontrol agents will be given emphasis to control/contain larger infestations where containment is the major goal. Approval for release of beneficial insects or pathogens must follow Biological Control Agent Release Proposal (BCARP) and Record (BCARR) record procedures. Only ODA approved biological control agents will be allowed for release after district and State Office approval of the BCARPs.
2. Sites selected for biocontrol application must be protected from other management actions that could negatively influence the biocontrol agent. These sites can also function as collection points for redistribution of established biocontrols to other sites.

Chemical Practices

This practice employs herbicides (approved FEIS-1985 and SEIS-1987), including 2,4-D, Dicamba, Picloram, and Glyphosate (except Roundup). See Appendix 7 for a complete list of approved and pending herbicides, tiered from the FEIS-1991 for *Vegetative Treatment on BLM Lands (Thirteen Western States)*. The pending herbicides will be incorporated if approved. Herbicides are currently being applied on district by the ODA as spot treatments.

Chemical Application Design Features

1. Chemical applications require submission of a PUP. PUPs are reviewed by district staff, approved by management, and submitted for State Office approval.
2. Chemical applications will be done by Oregon State certified and licensed applicators, and will comply with the constraints of the FEIS-1985 as supplemented SEIS-1987 and their RODs, and mitigation measures in this EA.

3. Pesticide use will comply with USDI rules and policy, BLM policy and guidelines, Oregon State laws and regulation, ODA laws and regulations, Environmental Protection Agency laws, Federal Pesticide laws, DEQ regulations, local County weed district priorities and requirements, and product label requirements.
4. The U.S. Fish and Wildlife Service will be consulted about chemical application in treatment areas containing proposed, threatened, or endangered animals.
5. Aquatic approved herbicides will be applied as appropriate.
6. Recent investigation, on district, have found many second order streams to contain perennial flow which provides habitat for a wide assortment of amphibians and aquatic macro-invertebrates. These streams are generally too small to contain fish, however, they need to be identified prior to activities. Employ the following buffer widths on all identified perennial and fish bearing streams, third order and larger streams, and lakes, ponds, wetlands, or other waters.

<u>Application Technique</u>	<u>Minimum Buffer Width</u>
Manual wipe-on	Water Line at Time of Application
Spot Treatment (with handgun/backpacks)	10'
Granular Formations	10'
Ground Vehicle (with boom sprayer)	1 Swath width
Aerial (all surface waters, wetlands & identified ground water recharge areas)	100'

7. Local conditions may require an expansion of these minimum widths. Examples of factors that may prompt additional buffer widths include: Mode of transportation (direct application, drift, and water flow), adjacent topography, and buffer vegetation structure and functions.
8. Seasonal restrictions may be required for application near fish bearing streams.
9. Boom sprayers or handguns will not be used in wetland or riparian areas where weeds are closely mingled with trees and shrubs.
10. Liquid chemicals can be applied for spot treatments within wetland or riparian areas using backpack hand spraying equipment. The nozzle is held from 0 to 2.5' above ground level (using single nozzle, low pressure and volume).
11. Spreader equipment (broadcast) could be used to apply granular formulations to within 10' of the high water line of live water at a height of about 3.5'.
12. Contact systemic chemicals (such as Glyphosate - Rodeo) may be allowed using hand wipe application on individual plants up to the existing water level.

13. When winds exceed 5 mph aerial applications cease, and boom or backpack spray being used in or near water. All chemical applications stop when winds exceed 8 mph.
14. Aerial applications will be by helicopter, within the constraints of the FEIS-1985 as supplemented SEIS-1987 and their RODs (no aerial application of Glyphosate is allowed).
15. Aerial applications would rarely exceed 100 acres in size, most treatment sites would be smaller than 40 acres. Total treatment acreage within a drainage should be limited to no more than 20% of the public ownership within that drainage. The term "Drainage" is the lowest term used in watershed analysis hierarchy. Drainage maps can be found in district watershed analysis documents. Treatment sites should be widely scattered throughout a drainage and no more than two sites should be on the same stream within a drainage.
16. Aerial application over first and second order ephemeral streams should be timed to occur during the dry season months (usually between June 15 and October 15), and should only be applied once in the same season.
17. No aerial/boom applications will occur more than two times per year on the same site (with the exception of Picloram which may not be applied more than once a year). A second treatment application can only occur after 30 days.
18. To avoid synergistic cumulative effects, aerial/boom application of different herbicides on the same site should not occur within an application year.

Manual Control

This practice will be utilized to reduce established seed sources or on sites involving just a few plants. Manual control practices include, but are not limited to, *hand pulling*, *grubbing with tools*, and *chainsaw work* and may involve moving plant residue to open wildlife passage corridors or make burn piles. These practice are usually highly labor intensive and often requires periodic retreatment efforts within the same growing season or repeats in the following seasons. Best results are often on small patches of a few plants, or less than three acres, and targeted to annual and biennial noxious weeds. Manual control may be ineffective against deep-rooted perennials. Depending on the targeted weed species it may be one of the best options for weed control within riparian areas or close to water.

Mechanical Control

Practices include, but are not limited to, *mowing*, *tilling*, *discing*, and *plowing*. These practices often require proper timing and periodic retreatment efforts within the same growing season or repeats in following seasons. Such control methods are often used in combination with other actions such as manually piling, prescribed fire, seeding, or additional methods of control in following years. Mechanical control is highly disruptive to surface soil characteristics and vegetation (especially desirable native plants). Some noxious weeds are not treatable in this way

due to their ability to spread by roots. Also, slopes are limiting factors, with 10% being the upper limit. All soil disturbing activities require a separate site specific environmental assessment.

Prescribed Fire

Depending upon the target weed and site characteristics, fire is used by itself or is combined with other noxious weed control methods. Controlled burning is best used on areas which can be rehabilitated to prevent erosion and resource degradation. Fire, by itself, is often not effective in removing most weed species, it may open an area up for increased weed infestations or encourage sprouting of the existing seed bed especially if the weed is fire dependent.

Fire is generally used to burn piles of weeds collected under manual or mechanical methods. It also functions as a site preparation tool (to burn weeds, remove matted/dead vegetation, reduce seed levels, and open stands for physical access). Physical access is required for application of most control methods. After prescribed fire the time and work effort required for application of other practices is often less than if prescribed fire had not been used. Prescribed fire activities are conducted according to BLM's Fire Management Policy (BLM Manual 9210), and require an approved burn plan before burning (a smoke management permit is also required).

Current Activities

Current locations for noxious weed control efforts are summarized in Appendix 1, including targeted species, location, County, and method of control. These sites will be monitored yearly and treatments will continue or be modified (based on monitoring or new information) until the weeds are eradicated or controlled.

New Discoveries

An inventory is currently being done through Jobs-in-the-Woods funding. Inventory/monitoring will locate noxious weeds, within or surrounding the district. These same efforts may reveal new species of "noxious weeds" not currently classified as new invaders or noxious, and not classified for control by other agencies. Each site and species will be mapped and characterized for possible eradication or control based on priority status, rate of spread, and ease of control. These sites would be added to this document through an amendment process and control actions could then be carried out following the general control plan and stipulated priorities for each weed in question. Control method(s) will be governed by specific conditions at each site, control effectiveness on the subject weeds, and potential for affecting special conditions/site factors.

Sharing of information is an important component of an integrated weed management program. It is essential to educate all employees as to known and potential problems, and to share information with ODA, affected County weed coordinators, and adjacent landowners.

Alternatives Considered But Not Analyzed

The alternatives of No Aerial Herbicide Application, and No Use of Herbicides have been analyzed in the Programmatic Northwest Area Noxious Weed Control FEIS-1985, SEIS-1987, and considered in their respective RODs. Further discussion in this EA is unnecessary since site specific conclusions and impacts would be essentially the same.

Section III - Affected Environment

Coos Bay District is located in the southwestern coastal portion of Oregon and includes approximately 329,700 acres of land in Coos, Curry, Douglas, and Lane counties. A general description of the effect environment is in the Northwest Area Noxious Weed Control Program FEIS-1985. A more detailed description of lands administered by the Coos Bay District can be found in the districts' Resource Management Plan (RMP, 1995).

Wildlife and Special Status Species

The District encompasses many types of habitat and it is estimated that 19 amphibians, 19 reptiles, 268 birds, and 62 different species of mammals occur on District. Of these, 70 are listed under Special Status protection, there are 32 invertebrates, 9 fish, 1 amphibian, 24 birds and 4 mammals. Special Status Species include federal endangered, threatened, proposed and candidate species and BLM sensitive, assessment and tracking species. Many of these species are associated with late successional forests which usually do not have noxious weed problems. This list includes all species which would or could "normally" use BLM lands.

Threatened and Endangered Fish

There are several "special status" (listed, or proposed for Federal listing) fish species within the geographical area of the District covered by this Environmental Assessment. BLM policy is to manage "special status" species as though they were listed species.

The Umpqua River cutthroat trout was listed by the National Marine Fisheries Service (NMFS) in August 1996 as an endangered species under the Federal Endangered Species Act (ESA). It is distributed throughout the Umpqua/Smith River basin below natural barriers.

Both the Oregon coast coho salmon Evolutionarily Significant Unit (ESU) and the winter steelhead trout have been petitioned for listing as threatened or endangered species under the ESA. On April 25, 1997 the National Marine Fisheries Service (NMFS) decided to base coastal coho salmon recovery on the success of Oregon's Coastal Salmon Restoration Initiative (CSRI) in lieu of an ESA listing. This species still has a "special status" designation (Federal "candidate") which could lead to an immediate emergency listing if NMFS determines that the CSRI is not leading toward species recovery. It is distributed throughout the coastal streams and rivers of the District

north of Cape Blanco. A listing determination for the proposed winter steelhead trout is pending. It is distributed throughout the coastal streams and rivers over the entire District.

A Federal "threatened" listing for coho salmon in the Southern Oregon/Northern California ESU was made effective on June 6, 1997. The area of distribution for this coho salmon is Oregon/California coastal waters south of Cape Blanco.

Section IV - Environmental Consequences

Actions described in section II of this EA will cause environmental impacts. These impacts are analyzed in Chapter 3 and summarized in Table 1-4, Alternative 1 page 12 and 13 of the FEIS. They were further addressed in Chapter 3 pp. 1-24, Appendices "K pp 65-92" and "N pp 93-117", and amended in text revision section pp 120-121 in the SEIS-1987. No potential human and environmental health impacts of the Proposed Action have been identified to Air Quality, Soils, Vegetation, Animals, Cultural Resources, Visual Resources and Recreation, Wilderness and Special Areas, Economic Conditions, Social Environment, Special Status (Plants, Animals, or Fish), Water Quality, and Human Health that exceed those addressed in the above documents and are fully analyzed in the FEIS as supplemented and considered in the RODs. No further analysis is needed in this document.

Flood Plains

Impacts will be in a change of vegetation along riparian zones or upper bank alluvial flats. Projects would be localized, and activities would be carried out over several years and may be enhanced or hindered by major flood events. Some erosion could occur prior to establishment of other plant species. Program practices prevent/limit surface disturbing impact to riverbanks, or substantial changes to protective riparian and floodplain vegetation. Stipulations specific to riparian zones are required if herbicides are applied.

Cultural Resources & Native American Religious Concerns

Program practices can directly or indirectly affect cultural resources. Practices that result in surface disturbance may directly affect surface manifestations of prehistoric or historic sites. Herbicide applications may indirectly affect vegetation important to traditional Native American plant gathering practices. However, non-control of noxious weeds, also, could adversely affect native vegetation important to traditional needs. Impacts will be modified or avoided by requiring cultural resource surveys before surface disturbing/prescribed fire activities. All PUPs, required for spraying, will be reviewed by the staff archaeologists before application. General application of herbicides along major highways or utility corridors are not expected to have any impact on unidentified archeological resources.

Hazardous Materials

Herbicides are considered hazardous materials. To ensure safe handling and use, chemical applications will only be done by an Oregon State Certified Applicator following applicable product label stipulations and State requirement (DEQ, ODA, OSHA) and federal EPA laws and FIFRA regulations. Transportation and application will be kept to a minimum as required for each specific job. Application will not exceed the rates, mixes, active ingredient amounts per acre, and will follow the method of application and safety precautions, as specified by the FEISs, SEIS, RODs and stipulations in this EA. The inherent risks to public health and safety associated with using a hazardous material were covered in the referenced FEIS, SEIS and Rod documents. No existing hazardous materials are known to occur at proposed project areas. Use of an approved Operation Plan for projects would reduce the risk of contamination and ensure that correct procedures are followed if a spill occurs.

Riparian, Wetlands, and Watersheds

Aerial application of herbicides generally involves widely dispersed areas, sizes rarely exceed 100 acres and most are less than 40 acres. Aerial spraying will not exclude ephemeral stream channels but seasonal restrictions still apply. Impacts to surface water quality are unlikely to result if design features are followed. Potential for herbicides to accumulate in harmful amounts is reduced since most sites are treated only once per year (twice being the limit).

Ground water is often close to the surface along streams and wetlands. If these areas are losing water to the aquifer, a potential exists for herbicides introduced to these areas to enter the ground water. However, dilution in the aquifer results in an additional lowering of concentration. Also, streams and wetlands are normally high in microorganisms which are the main agents for biodegradation of herbicides. Therefore, little potential exists for herbicides to accumulate in harmful amounts. No municipal watersheds will be affected.

Impacts to non-target riparian/wetland vegetation depends on proximity to the target species, herbicide used, formulation, and rate and method of application. Since herbicide application rates are reduced in riparian/wetland areas, or only herbicides approved for aquatic purposes will be applied, injury to non-target plants should be reduced.

Noxious Weeds

Impacts from noxious weed expansion or invasion into native plant communities, or causing a reduction in biodiversity, is against BLM policy and mandates. Also, Federal, State, and County regulations and laws mandate active control measures to prevent noxious weed introduction and to control expansion of known populations. A reduction of biodiversity results in negative impacts to wildland resources but directly affects native vegetation, wildlife habitat, forest stand development, and recreational needs.

Prevention procedures are designed to limit introduction or establishment of noxious weeds, and

to reduce spread of existing infestations. These are key procedures and considered the least expensive and most effective. New invaders become the highest priority for treatment where prevention fails. Impacts to resources increase if control measures are not used. Effective control measures need to be used immediately or future control efforts and costs will increase. The primary goal will be to restore, enhance, and maintain ecological functions and the biological productivity of public lands.

Threatened and Endangered Animals, Plants, and Fish

T&E Animals

In general, treatments avoid known nests, roost sites, and/or critical habitat of listed species. All projects are surveyed to insure avoidance - or mitigation - of impacts to special status animals including seasonal restrictions. In the Pacific Northwest no known animal is specifically adapted to either broom or gorse - the two most prevalent weeds on District proposed for treatment. No adverse impacts are expected to occur.

All treatment methods can temporarily (relocation) or permanently (if sprayed, burned, or killed/injured in mechanical or manual treatments) disrupt daily individual behavior of wildlife using or inhabiting treatment sites. Impacts are greater on smaller less mobile animals than on larger ones. The greatest disturbance to wildlife will last the duration of the specific treatment activity, or longer if localized specific habitat niches (ex. cover, food, or home) are destroyed or abandoned. Residual impacts may last until the site is recolonized other plants.

In routine cases, most animals are unlikely to be exposed to fatal doses of herbicides. A variety of small animals and birds use weeds as cover and *perhaps* eat seeds, but should not be inclined to eat seeds or foliage covered with herbicides. Animals such as deer are repelled by herbicide residue, and only 5% of large game diets contained such residue. This percentage is considered too low to cause long term negative effects. Also, fish and wildlife excrete herbicide residues, which tend not to concentrate or accumulate in body tissues. Scientists have found amphibians to be the least sensitive of all groups of organisms. Fish are generally 2 to 3 times more sensitive than amphibians. Therefore, the assumption is that if we protect aquatic and wetland areas to prevent impacts to fish, we will be safe for amphibians (this only applies to amphibians which live close to water). Impacts of herbicide consumption on lactating mammals/feeding of contaminated foods to offspring can be lessened if treatment periods do not correspond with bird nesting season or other critical times when loss of cover would be critical.

The impacts of not treating noxious weeds in a timely manner could be detrimental to native vegetation and associated wildlife. Impacts (ex. sedimentation, siltation, acute or chronic exposure to herbicides) to amphibians, reptiles, and aquatic species (macroinvertebrates) are expected to be limited. This is due to design features, such as riparian buffers, treatment methods/stipulations for riparian zones, and the chemical nature of the authorized herbicide(s) and application methods/stipulations. Improper application of any proposed treatment method could result in significant negative impacts to wildlife communities.

Risks and impacts to wildlife by integrated weed management practices, including chemicals, have been analyzed in the tiered FEIS (1985) and SEIS (1987). Also, see analysis file for a synopsis of specific herbicide effects on wildlife.

T&E Plants

No impacts to special status, survey and manage, or threatened and endangered plant species would be expected because of the project design features outlined in the FEIS/SEIS and this EA. Also, proposed projects have required clearance surveys and the recommendations from these surveys would be incorporated as project mitigation's.

T&E Fish

Direct/indirect impacts to fish/other aquatic species is minimal if application design features and manufacturers recommendations for application rates and concentrations are followed. The seasonal restrictions for aerial/boom applications around ephemeral streams reduces the likelihood of salmonid fry and juveniles being exposed to herbicides. Human error in mixing or application rates could cause mortality to aquatic species. Cumulative impacts from this action are not expected.

Section V - List of Preparers and contributors

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APPENDIX

1

Noxious Weed Locations And Treatments

(Includes Legal Descriptions and Maps)

SITES CURRENTLY IDENTIFIED FOR TREATMENT IN THE COOS BAY DISTRICT

Species	Township, Range, & Section	Location - Name	Resource Area	County	Chem-Man-Bio-Mech
Klamath Weed	No sites are identified to be treated in this EA. Manual could be used on small sites.				Chem, Man, Bio, Mech
French Broom	Currently no distinction is made between brooms. (See Scotch Broom below)				Site Specific-See Scotch Broom
Scotch Broom	Broom locations/inventories are available at the CBD Office. Sites range from a few plants (mostly manual control) to roadside (mostly mechanical brushing) to many acres (mostly chemical spray). Broom is present in most watersheds. Biocontrols are present but not effective.				Man, Chem, Mech, Bio
Bull Thistle	T22S, R11W, Sec. 3-6	Deans Creek Elk Area	Umpqua	Coos	Chem, Bio, Mech, Man
Purple Loosestrife	T22S, R11W, Sec. 3-6	Deans Creek Elk Area	Umpqua	Coos	Chem, Man, Bio, Mech
Tansy Ragwort	T22S, R11W, Sec. 3-6	Deans Creek Elk Area	Umpqua	Coos	Bio, Chem, Man, Mech
Canada Thistle	T22S, R11W, Sec. 3-6	Deans Creek Elk Area	Umpqua	Coos	Chem, Bio, Mech, Man
Gorse	T20S, R09W, Sec. 26	Cold Clearwater	Umpqua	Douglas	Chemical is listed first,
The following sites consist	T26S, R11W, Sec. 23	Moon Creek	Umpqua	Coos	but when plants on site
of individual plants. No	T26S, R12W, Sec. 17	Matson Ridge	Umpqua	Coos	are small in size and
treatment area is	T26S, R12W, Sec. 35	Koos King Thinning	Umpqua	Coos	few in number then
greater than one acre.	T27S, R09W, Sec. 23	Friday the 13th Salvage	Umpqua	Coos	manual control will
"	T27S, R09W, Sec. 24	Friday the 13th Salvage	Umpqua	Coos	be priority choice.
"	T27S, R09W, Sec. 24	Burnt Rdg Rd Rock Quarry	Umpqua	Coos	" (Monitoring)
"	T27S, R10W, Sec. 05	Vaughns Creek	Umpqua	Coos	"
"	T27S, R11W, Sec. 13	Old Manns Rd	Umpqua	Coos	" (Monitoring)

Species - Gorse	Township, Range, & Section	Location - Name	Resource Area	County	Treatment Chem-Man- Bio-Mech.
"	T27S, R11W, Sec. 16	Mast Creek	Umpqua	Coos	"
"	T27S, R11W, Sec. 22	Cherry Dump #5	Umpqua	Coos	"
"	T27S, R11W, Sec. 23	Cherry Dump #2	Umpqua	Coos	"
"	T27S, R11W, Sec. 27	Cherry Dump #4	Umpqua	Coos	"
"	T27S, R11W, Sec. 27	Middle Overlook	Umpqua	Coos	"
"	T27S, R11W, Sec. 33	McKinley Garage	Umpqua	Coos	"
"	T27S, R12W, Sec. 02	Young Blue	Umpqua	Coos	"
"	T27S, R12W, Sec. 02	Road Side	Umpqua	Coos	"
"	T28S, R9W, Sec. 35	Weaver Road	Myrtle wood	Coos	"
"	T28S, R10W, Sec. 07	Change of Habit	Myrtle wood	Coos	"
"	T28S, R10W, Sec. 24	Cawrse's Road	Myrtle wood	Coos	"
"	T28S, R10W, Sec. 34	Mainline #2	Myrtle wood	Coos	"
"	T28S, R10W, Sec. 34	Mainline #3	Myrtle wood	Coos	"
"	T28S, R11W, Sec. 25	28-10-19.0 Road	Myrtle wood	Coos	"
"	T28S, R11W, Sec. 32	Elk Creek Ridge	Myrtle wood	Coos	"
"	T29S, R09W, Sec. 28	Signal Tree	Myrtle wood	Douglas	"
"	T29S, R11W, Sec. 8	Johns-Weekly Salvage	Myrtle wood	Coos	"

Species - Gorse	Township, Range, & Section	Location - Name	Resource Area	County	Treatment Chem-Man-Bio-Mech.
"	T29S, R11W, Sec. 11	Brownson Creek	Myrtle wood	Coos	"
"	T30S, R10W, Sec. 13	Panther Creek	Myrtle wood	Coos	"
"	T30S, R13W, Sec. 25	Dement Creek	Myrtle wood	Curry	"
"	T30S, R14W, Sec. 10	Palmer Butte	Myrtle wood	Curry	"
"	T30S, R15W, Sec. 3/10/11	New River ACEC	Myrtle wood	Coos	Man-Bio-Mech-Chem.
"	T33S, R14W, Sec. 30	Bah Humbug	Myrtle wood	Curry	Chem-Man-Bio-Mech.
"	T34S, R14W, Sec. 2	Salal Spring	Myrtle wood	Curry	"
"	T39S, R13W, Sec. 11	Gardiner Ridge	Myrtle wood	Curry	"
This site is 1 acre in size.	T25S, R14W, Sec. 24	North Spit	Umpqua	Coos	"
These sites have 1 to 5	T21S, R12W, Sec. 32	Umpqua Eden - North	Umpqua	Douglas	Mechanical or manual site
acres of gorse on cat trails.	T22S, R12W, Sec. 05	Umpqua Eden - South	Umpqua	Douglas	preparation will occur first.

APPENDIX

2

Noxious Weed Growth Form, Reproduction Methods and Treatments

Noxious Weeds, Growth Form, Reproduction Methods, and Treatment

Noxious Weed Species	Programmatic-ODA ⁷ Priorities	Growth Form	Reproduction Methods	Treatment Method - By Order of Priority ^{*1}
Tansy Ragwort	ODA=B/Priority=3	Biennial	Seeds	***Bio ² , Man ³ , Chem ⁴ , Mech ⁵
Purple Loosestrife	ODA=B/Priority=2	Perennial	Seeds/Roots	Chem, Man, ***Bio, Mech
Scotch Broom	ODA=B/Priority=3	Woody Shrub	Seeds	Man, Chem, Mech, ***Bio
Gorse	ODA=T/Priority=2	Woody Shrub	Seeds	Chem, Man, ****Bio, Mech
French Broom	ODA=B/Priority=2	Woody Shrub	Seeds	Man, Chem, Mech, Bio
Klamath Weed (AKA) St. Johnswort	ODA=B/Priority=3	Perennial	Seeds/Roots	Man, Chem, *****Bio, Mech
Bull Thistle	ODA=B/Priority=3	Biennial	Seeds	*Bio, Chem, Mech, Man
Canada Thistle	ODA=B/Priority=3	Perennial	Seeds/Roots	***Bio, Chem, Mech, Man

1. *s = number of ODA approved biological agents for that species. 2. Bio = Biological Controls 3. Man = Manual Controls

4. Chem = Chemical Controls

5. Mech = Mechanical Controls

6. See Programmatic Priorities below.

7. For the Oregon State Department of Agricultural (ODA) noxious weed designations/list see Appendix 3. The "A" list is subject to intensive control, the "T" list is on a Statewide management plan, and for the "B" list control is determined on a case-by-case basis.

APPENDIX

3

ODA Approved Biological Controls

Biological Controls used for Noxious Weeds

WEED	Scientific Name	Common Name
Gorse	<i>Apion ulicis</i>	Gorse seed weevil
	<i>Tetranychus lintearius</i>	Gorse spider mite
Purple Loosestrife	<i>Galerucella californiensis</i>	Black-margined loosestrife beetle
	<i>Galerucella pusilla</i>	Golden loosestrife beetle
	<i>Hylobius transversovittatus</i>	Loosestrife root weevil
	<i>Nanophyes marmoratus</i>	Loosestrife seed weevil
Scotch Broom	<i>Agonopterix nervosa</i>	Gorse or broom tip moth
	<i>Apion fuscirostre</i>	Scotch broom seed weevil
	<i>Leucoptera spartifociella</i>	Scotch broom twig miner
St Johnswort	<i>Agrius hyperici</i>	St. Johnswort borer
	<i>Aplocera plagiata</i>	St. Johnswort inchworm
	<i>Chrysolina hyperici</i>	Klamath weed beetle
	<i>Chrysolina quadrigemina</i>	Klamath weed beetle
	<i>Zeuxidiplosis giardi</i>	Klamath weed midge
Tansy Ragwort	<i>Longitarsus jacobaeae</i>	Ragwort flea beetle
	<i>Pegohylemyia seneciella</i>	Ragwort seed fly
	<i>Tyria jacobaeae</i>	Cinnabar moth
Bull Thistle	<i>Urophora stylata</i>	Bull thistle gall fly
Canada Thistle	<i>Ceutorhynchus litura</i>	Canada thistle stem weevil
	<i>Urophora cardui</i>	Thistle stem gall fly

Source: Rees, N.E. et al. 1996. Biological Control of Weeds in the West. Western Society of Weed Science.

APPENDIX

4

ODA Weed Priority List

1997 - OREGON DEPARTMENT OF AGRICULTURAL WEED PRIORITY LIST
(This total list is subject to yearly updates and the most current list will be used)

Table 1 - "A" List (Subject to intensive control)

<u>Common Name</u>	<u>Scientific Name</u>
African rue	<i>Peganum harmala</i>
Barbed goatgrass	<i>Aegilops triuncialis</i>
Bearded creeper (Common Crupina)	<i>Crupina vulgaris</i>
Big-headed knapweed	<i>Centaurea macrocephala</i>
Bulbed goatgrass	<i>Aegilops ventricosa</i>
Camelthorn	<i>Alhagi pseudalhagi</i>
Coltsfoot	<i>Tussilago farfara</i>
Feather-headed knapweed	<i>Centaurea trichocephala</i>
Giant Hogweed	<i>Heracium mantegazzianum</i>
Hydrilla	<i>Hydrilla verticillata</i>
Iberian starthistle	<i>Centaurea iberica</i>
Kudzu	<i>Pueraria lobata</i>
Lepyrodielis	<i>Lepyrodielis holosteoides</i>
Matgrass	<i>Nardus stricta</i>
Ovate goatgrass	<i>Aegilops ovata</i>
Purple nutsedge	<i>Cyperus rotundus</i>
Purple starthistle	<i>Centaurea calcitrapa</i>
Short-fringed knapweed	<i>Centaurea nigrescens</i>
Silverleaf nightshade	<i>Solanum elaeagnifolium</i>
Skeletonleaf bursage	<i>Ambrosia tomentosa</i>
Smooth cordgrass	<i>Spartina alterniflora</i>
Smooth distaff thistle	<i>Carthamus baeticus</i>
Spartina	<i>Spartina densiflora</i>
Spartina	<i>Spartina anglica</i>
Squarrose Knapweed	<i>Centaurea virgata</i>
Syrian bean-caper	<i>Zygophyllum fabago</i>
Tausch's goatgrass	<i>Aegilops tauschii</i>
Texas Blueweed	<i>Helianthus ciliaris</i>
Whitestem distaff thistle	<i>Carthamus leucocaulos</i>
Wild safflower	<i>Carthamus oxycantha</i>
Woolly distaff thistle	<i>Carthamus lanatus</i>

Table 3 - "T" or target list (Statewide management Plan)

<u>Common Name</u>	<u>Scientific Name</u>
Gorse <i>Ulex europaeus</i>	
Leafy spurge	<i>Euphorbia esula</i>
Rush skeletonweed	<i>Chondrilla juncea</i>
Squarrose knapweed	<i>Centaurea virgata</i>
Tansy ragwort	<i>Senecio jacobaea</i>
Woolly distaff thistle	<i>Carthamus lanatus</i>
Yellow starthistle	<i>Centaurea solstitialis</i>

Table 2 - "B" List (Control determined on case-by-case)

<u>Common Name</u>	<u>Scientific Name</u>
Austrian peaweed (Swainsonpea)	<i>Sphaerophysa salsula</i>
Buffaloburr	<i>Solanum rostratum</i>
*Bull thistle	<i>Cirsium vulgare</i>
*Canada Thistle	<i>Cirsium arvense</i>
Creeping yellow cress	<i>Rorippa sylvestris</i>
*Dalmation Toadflax	<i>Linaria dalmatica</i>
*Diffuse knapweed	<i>Centaurea diffusa</i>
Dodder	<i>Cuscuta spp.</i>
Dyers woad	<i>Isatis tinctoria</i>
Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
Field bindweed	<i>Convolvulus arvensis</i>
French broom	<i>Cytisus monspessulanas</i>
Giant horsetail	<i>Equisetum telmateia</i>
Giant knotweed	<i>Polygonum sachalinense</i>
*Gorse	<i>Ulex europaeus</i>
Halogeton	<i>Halogeton glomeratus</i>
Himalayan knotweed	<i>Polygonum polystachyum</i>
Houndstongue	<i>Cynoglossum officinale</i>
*Italian thistle	<i>Carduus pycnocephalus</i>
Japanese knotweed (Fleeceflower)	<i>Polygonum cuspidatum</i>
Johnsongrass	<i>Sorghum halepense</i>
Jointed goatgrass	<i>Aegilops cylindrica</i>
Kochia	<i>Kochia scoparia</i>
*Leafy spurge	<i>Euphorbia esula</i>
*Meadow knapweed	<i>Centaurea pratensis</i>
*Mediterranean sage	<i>Salvia aethiopsis</i>
Medusahead rye	<i>Taeniatherum caput-medusae</i>
*Milk thistle	<i>Silybum marianum</i>
*Musk thistle	<i>Carduus nutans</i>
Perennial pepperweed	<i>Lepidium latifolium</i>
*Poison hemlock	<i>Conium maculatum</i>
Portuguese broom	<i>Cytisus</i>
*Puncturevine	<i>Tribulus terrestris</i>
*Purple loosestrife	<i>Lythrum salicaria</i>
Quackgrass	<i>Agropyron repens</i>
Ragweed	<i>Ambrosia artemisiifolia</i>
*Rush skeletonweed	<i>Chondrilla juncea</i>
*Russian knapweed	<i>Centaurea repens</i>
*Scotch broom	<i>Cytisus scoparius</i>
Scotch thistle	<i>Onopordum acanthium</i>
*Slender-flowered thistle	<i>Carduus tenuiflorus</i>
South American waterweed (Elodea)	<i>Elodea densa</i>
Spartina	<i>Spartina patens</i>
Spanish broom	<i>Spartium junceum</i>
Spikeweed	<i>Hemizonia pungens</i>
Spiny cocklebur	<i>Xanthium spinosum</i>
*Spotted knapweed	<i>Centaurea maculosa</i>
*St. Johnswort (Klamath weed)	<i>Hypericum perforatum</i>
Sulfur cinquefoil	<i>Potentilla recta</i>
*Tansy ragwort	<i>Senecio jacobaea</i>
Velvetleaf	<i>Abutilon theophrasti</i>
Western horsetail	<i>Equisetum arvense</i>
White top (hoary cress)	<i>Cardaria spp.</i>
Wild proso millet	<i>Panicum miliaceum</i>
Yellow nutsedge	<i>Cyperus esculentus</i>
*Yellow starthistle	<i>Centaurea solstitialis</i>
*Yellow toadflax	<i>Linaria vulgaris</i>

*Biological Control Agents Have Been Approved for These Weed Species

APPENDIX

5

District Monitoring

District Monitoring Forms

Monitoring Type	Methods	Time	Attributes Evaluated
Pretreatment Surveys	Onsite Visual Inspection	Each project	Species present, Density, Control options, Methods chosen, Survey forms completed.
Posttreatment Surveys	Onsite Visual Inspection	Each project	Effectiveness, Need for retreatment, Corrective measures, Survey forms completed.
Pesticide Use Proposal (PUP)	Review by authorized personnel	Before application	Proposal compared to EPA registration requirements & meets FEIS/SEIS, and EA stipulations.
Pesticide Application Record	Onsite Visual Inspection	Right after application	Weather, Date/Time, Name of applicator, License, Chemical & rate of application, PUP/EA, Equipment type, Size area treated, Weed/Size.
Water Monitoring	Pre/Post treatment samples near potable water & if chemicals could get into water	Each project as needed	Potential water contamination, Survey forms completed.
Coordination monitoring	Weed mgmt. plans submitted to S. O.	Yearly	Coordination of plan.
BCARP	Proposed biocontrol application submitted to S. O.	Each project as needed	
BCARR	Record of biocontrol application submitted to S. O.	Each project as needed	
Biological monitoring	Onsite Visual Inspection	Yearly	Show establishment, Rate of spread, & Effectiveness for State/district survey forms completed.
Special status species survey (plant/animal)	Onsite Visual Inspection/database	Each project as needed	Presence of special status species (plant & animal), Survey forms completed.
Cultural resource surveys	Onsite Visual Inspection/database	Each project as needed	Presence of cultural resources, Survey forms completed.
Contract	Onsite Visual Inspection	Each contract	Meeting of contract stipulations, work requirements, and time frames, Survey forms completed.

APPENDIX

6

Coos Bay Prevention Plan

COOS BAY DISTRICT WEED PREVENTION SCHEDULE

PREVENTION ACTIVITY	RESPONSIBLE PERSONS
Report noxious weed locations during formal/informal field surveys and report to noxious weed coordinator	All personnel
Monitor spread/eradication of noxious weeds	Weed coordinators/Field personnel
Wash off-road equipment (steam or high pressure) of mud, dirt, and plant parts before moving into contract areas	Engineers/Contract Administrators/Prescription writer/Noxious weed coordinators
Wash work rigs if going from a weed infested area to a non-infested area, or from a high infested area to a low infested area.	All personnel
Wash returning vehicles from off-district fires	Returning fire personnel
Reestablish vegetation on all disturbed soil from construction, reconstruction and maintenance activities	Engineers/Contract Administrators/Prescription writer
Review Recreation areas for presence of weeds	Recreation Specialist
Secure weed free seed for all seeding projects	Engineers/Contract Administrators/Prescription writer
Distribute weed awareness information to the public	Noxious weed coordinator/Public affairs officer
Work with adjacent land owners on weed awareness and control	Noxious Weed Coordinator
Weed Identification/awareness training for field employees and managers	Noxious Weed Coordinator
Prior to ground disturbance activities consider potential impact on existing seed banks of noxious weeds	Engineers/Contract Administrators/Prescription writer
Removal of isolated (satellite) populations of noxious weeds	All field personnel
Update district weed program with ODA and State Weed Team	Noxious Weed Coordinator
Work with County and State Weed boards on control and prevention of weeds	Noxious Weed Coordinator
Include noxious weed management in Travel Management Plan	DRMS/Noxious Weed Coordinator
Include noxious weeds as part of NEPA planning	EA Writers/Noxious Weed Coordinators
Make sure that gravel for road maintenance/construction is weed free	DRMS/Engineers/Contract Administrator/Prescription Writer
Maintain records of all noxious weed sites on the district	Noxious Weed Coordinator

Actions on many of these items generally occurs in Spring and Fall but in many cases can be performed year round.

APPENDIX

7

Herbicide List

HERBICIDE LIST

(Approved/Approval Pending Removal of Injunction)

APPROVED

2, 4-D

Dicamba

Dicamba + 2, 4-D

Glyphosate (but not Roundup mixtures)

Glyphosate + 2, 4-D

Picloram

Picloram + 2, 4-D

APPROVAL PENDING REMOVAL OF INJUNCTION

Atrazine

Bromacil

Bromacil + Diuron

Chlorsulfuron

Clopyralid

Diuron

Hexazinone

Imazapyr

Mefluidide

Metsulfuron Methyl

Simazine

Sulfomefuron Methyl

Tebuthluron

Triclopyr