APPENDIX F

Project Implementation and Monitoring (Including annual implementation guidelines, EDRR, and monitoring and reporting forms)

Invasive Plant Treatment Implementation and Monitoring Guide
Deschutes and Ochoco National Forests, Crooked River National Grassland

The following outlines the process that will be used to ensure that the selected alternative is properly implemented. It applies to invasive plant sites known and identified for treatment in the EIS as well as new sites found during inventory (early detection/rapid response). Annually, an invasive plant assessment review team will be assembled to identify sites for potential treatment and follow the steps below to ensure consistent and effective treatment is applied, appropriate Project Design Features are implemented, and necessary monitoring and reporting are completed.

Implementation planning includes annual treatment of both known sites and newly discovered sites.

1. **Convene interdisciplinary team to review the annual program.**
    - Team members and a team leader will be assigned by the Forest Supervisors.
    - Appropriate fish and/or wildlife biologists will be part of this team when proposed project sites are near listed species or their habitats.
    - The PNW Research Station's RNA coordinator will be part of this team when proposed project sites are within or near RNAs.

2. **Characterize invasive plant infestations to be treated. This includes:**
    - Characterize infestation (density, type and no. of species, extent, etc.). See Exhibit 1 for an example of an inventory form.
    - For new detections, ensure that there no unique features or treatment needs beyond the scope of the selected alternative are needed.
    - Add or refine target species information to database (NRIS).
    - Identify site objective, short and long term desired condition (see the Site Priority and Objectives section below).
    - Identify conditions at the site to be treated (affected environment, resources at risk). List any resources of concern and determine if additional surveys are needed. Coordinate with resource specialists to get additional information or new information about specific locations.
    - Ensure that no extraordinary conditions exist that were not considered in the EIS.[1]

    Pre-implementation documentation: Maps and descriptions, finding that no extraordinary site conditions exist.

3. **Develop site-specific prescriptions and plans**
    - For new sites (not inventoried and listed in the EIS) use Integrated Weed Management principles to identify preferred treatment method(s). Use Appendix B of the EIS (Common Control Measures with notations specific to the Deschutes, Ochoco, and CRNG) and other sources as a reference. These methods are intended to be refined through monitoring and adaptive management.

[1] Extraordinary conditions at site may trigger additional NEPA requirements.

This step will involve the consideration of whether or not herbicides are required for treatment effectiveness and/or whether or not the use of herbicides increases cost-effectiveness of treatments. The team will also consider the availability of volunteers to reduce the cost of manual treatments. The decision to use herbicides must consider the ability to comply with R6 Standards #15 – 23 as well as all of the project design features listed in Section 2.4 of the EIS. The appropriate prescription will consider all site conditions identified during step #2 above.

- Using an interdisciplinary team, determine whether preferred methods are within the scope of those analyzed in the EIS[2].
- Treatment within RNAs will be designed to have the least effect on ecological processes, and the RNA Coordinator will be involved in all treatment decisions.
- Identify pre-treatment survey needs (e.g. sensitive plants).
- Apply appropriate PDFs from EIS section 2.4 and PDCs from consultation documents. Consider:
    - ✓ Size of infestation, treatment history and response to past treatments
    - ✓ Proximity to sensitive species or habitats
    - ✓ Proximity to streams, lakes, or wetlands
    - ✓ Soil conditions (e.g. texture, shallow water table, excessively well-drained)
    - ✓ Depth to groundwater
    - ✓ Domestic water intakes or position in municipal watershed
    - ✓ Recreation or special forest product uses.
    - ✓ Mineral Material source (in use or planned for use)
- Consider effectiveness of treatments once PDFs are applied.
- Review Forest Plan standards or other environmental criteria for treatment site location.
- Ensure no effect for heritage resources. Complete project review/exemption form.
- Prepare pre-treatment restoration plan. The need for active restoration will be re-assessed during post-treatment monitoring. For active restoration sites, ensure acceptable plant or mulch materials are available before implementation. (R6 Standard #12)
- Complete Form FS2100-2 (Exhibit 3), Pesticide Use Proposal. This form lists treatment objectives, specific herbicide(s) that would be used, the rate and method of application, and PDFs that apply.
- Apply annual **herbicide** cap for riparian areas: Treatments above bankfull, but still within the aquatic influence zone[3], would be restricted to 10 acres per year per 1.5 miles of stream, within any 6th field watershed. Treatments below bankfull would be restricted to 1.0 acres per year within any 6th field subwatershed.
- Apply annual combined treatment cap: **Treatments of all kinds shall not exceed 16,000 acres per year** during the expected 15 years that the Record of Decision will be in effect. This cap allows an approximately 10 percent addition to the proposed quantity

[2] If preferred methods have effects that are outside the scope of those analyzed in the EIS, additional NEPA would be required. If prescribed treatment would not be effective once PDFs are applied, further NEPA would also be required to authorize the effective treatment. An analysis according to Section 18 of the 1909.15 Forest Service NEPA Handbook would be warranted if the treatment prescription was not similar to any analyzed in this EIS, or there were circumstances not considered in this EIS.

[3] The aquatic influence zone is defined as the inner half of a riparian reserve or riparian habitat conservation area on Class 1, 2, 3, and 4 streams and lakes and wetlands.

of treatment of known sites. Defining this acreage "cap" allows the analysis in the EIS to proceed within well-defined parameters. It also provides the public with useful information about the potential extent of proposed treatments, including those implemented through EDRR. Realistically, it is expected that actual treatment would be substantially less than 16,000 acres, considering budget and what has been treated in recent years.

Pre-implementation documentation: Detailed prescriptions that include appropriate PDFs, finding that treatment methods are within the scope of the EIS, finding of no effect on heritage resources, restoration/revegetation plans, completed FS2100-2.

4. Coordination and Notification

- Coordinate with adjacent landowners and partners if appropriate.
- The PNW Research Station will be notified in writing of any treatments proposed within or adjacent to RNAs.
- If the IDT identifies EDRR opportunities that "may affect" federally ESA-listed species, the Level 1 team will be notified prior to project implementation. The Level 1 Team, which includes regulatory agencies, may convene to review the project and determine if the project is consistent with the programmatic consultation for the Invasive Plant Treatment Program. Project Consistency Evaluation Forms (see Exhibit 9)for treatment of PAUs and EDRR areas that "may affect" federally ESA-listed species will be completed by November 1st and submitted to Forest Level 1 representatives. Forms will then be submitted to the regulatory agencies. Level 1 team members may schedule post-implementation field trips to monitor effectiveness.
- For treatments that fall below the ordinary high water mark (bankfull), and that cannot meet the In-Water Work Time Periods, consult with the Oregon Department of Fish and Wildlife.
- Prioritize sites to be treated on each Forest following the criteria in the EIS Chapter 2. Coordinate with road managers to ensure needed mineral material sources are considered in prioritization. (R6 Standard #11)
- Document a public notification plan based on the treatment areas (e.g. if they involve places where people gather or areas of special use forest product collection). See Exhibit 4 for an example of a newspaper notification. (R6 Standard #23).
- Before using herbicides in any Project Area Unit that has cultural (traditional) use plants either previously mapped or subsequently identified in the unit, notify tribal government leader, culture and heritage committee or person, and natural resources lead for relevant tribal organizations (Confederated Tribes of the Warm Springs Reservation, Burns Paiute Tribes, and the Klamath Tribes) with information about location, time of application, application methods, and herbicides used. Contact should be a combination of written notice and subsequent phone or email confirmation or discussion.

Pre-implementation documentation: notes of meetings; copies of notification.

Site Priority and Objectives

Invasive plant sites are prioritized for treatment based on the level of risk associated with the species and the type of site. Though all invasive plant sites are important to treat, the sheer number and distribution of sites results in the need to prioritize and focus our treatments. Prioritization will be a step in the annual implementation planning process and is not included as a NEPA decision.

High priority sites include areas that have the potential to more rapidly spread seeds and propagules of invasive plant species, such as quarries, roads, and high use recreation sites, as well as current treatment sites. High priority sites are also determined by high priority species that have potential to spread quickly and change plant species composition to the extent that resources, such as sensitive plant populations, wildlife and livestock forage are at risk.

Medium priority sites include larger infestations with the goal to control or contain these sites to prevent further introduction and spread and environmental degradation. Some sites may be controlled over time given enough years of treatment. Other sites are so large and widespread that a more reasonable goal is to contain these sites by focusing treatment on the outside boundaries of the infestation to prevent further spread. Medium priority sites can contain high priority species, such as the knapweeds and houndstongue.

Low priority sites are either those infestations that are extremely difficult to eradicate or control, such as large, well-established infestations of reed canarygrass along lakeshore edges, or are low priority because the invasive plant species is less aggressive and there is less potential for significant ecological impacts (e.g., bull thistle).

Table 1. Treatment prioritization strategy used annually to implement invasive plant treatments on the Deschutes and Ochoco National Forests and Crooked River National Grassland.

Priority	Description
High	Eradication, control or containment of aggressive new species with potential for significant ecological impact. New infestations in high priority areas not yet infested. Infested active gravel, fill, sand stockpiles, quarry, and borrow material sites. Active restoration sites where invasive plant control is essential for successful restoration. Sites that threaten or jeopardize Threatened, Endangered, and Sensitive plant and animal habitat. Sites we have already been treating and need to continue this commitment. Areas of high traffic (e.g., roads, high use recreation sites, trailheads, horse camps, fire camps, parking lots, etc.). Unique plant habitats (e.g., wetlands, fens, bogs, botanical areas, Research Natural Areas).
Medium	Containment of existing large infestations of priority species with focus on boundaries of infestation. This is to prevent the spread of the invasive plant beyond the perimeter of patches or infestation areas mapped from current inventories. Control of existing large infestations with a high potential for significant reduction and at least 15% of native plant component. Focus first on: 1) sites with the highest native plant cover available to colonize the site as the invasive plants are reduced; and 2) outside edges of population to prevent/contain further spread Road systems that have less traffic but still function as seed dispersal vectors.
Low	Suppression of existing large infestations when eradication/control or containment is not possible. Tolerate. Accept the continued presence of established infestations and the probable spread to ecological limits for certain species. Try to exclude new infestations through prevention practices.

Target species within each project area unit are assigned a treatment strategy. These strategies vary depending on the potential negative impacts of a given invasive species and the value or sensitivity of the treatment site (or adjacent lands) (USFS 2005a, page 3-78). The Invasive Species section of Chapter 3 and Appendix A provide further information on the site-specific conditions within the project area units.

The following objectives are identified for the approximately 1,892 known invasive plant sites on the Forests and Grassland and will be applied to new sites through the EDRR process:

- **Eradication:** Attempt to totally eliminate an invasive plant species from a USDA Forest Service unit, recognizing that this may not actually be achieved in the short term since re-establishment/re-invasion may take place initially.
- **Control:** Reduce the infestation over time; some level of infestation may be acceptable.
- **Suppression:** Prevent seed production throughout the target patch and reduce the area coverage. Prevent the invasive species from dominating the vegetation of the area; low levels may be acceptable.
- **Containment:** Prevent the spread of the weed beyond the perimeter of patches or infestation areas mapped from current inventories.
- **Tolerate:** Accept the continued presence of established infestations and the probable spread to ecological limits for certain species. Try to exclude new infestations through prevention practices. This is for species where other levels of effort have not been successful.

Monitoring

Two types of monitoring would be conducted to assure compliance: implementation monitoring and effectiveness monitoring. Implementation monitoring determines whether treatments were carried out according to the implementation plan, prescriptions, and PDFs. These strategies were designed to respond to the issues and lessen the effects to the associated resource.

Implementation

Implementation monitoring of invasive plant treatments is a two-step process. Each infestation is given a priority as required by the 2005 R6 FEIS. Deciding what and where treatments should occur first is a crucial step to implementing the invasive plant program. This is the basis for building the implementation plan to effectively and economically meet land management goals. From the prioritized list, prescriptions are determined and appropriate PDFs are assigned. This allows many safeguards to be in place before control measures begin. For example, treatment caps are in place to protect water and aquatic species. To comply with the cap and track the acres of herbicide application within a 6th-field watershed each year, the prioritized list of infestations and prescription estimates the acreage in advance. Spray reports (implementation form) are required from Contractors on a monthly basis, allowing comparison to estimated and actual acreage. Adjustments would then be made to stay within the cap.

The second step of implementation monitoring is reviewing the treatments on the ground to determine whether PDFs and prescriptions were followed. This often occurs concurrently with inspections of work in progress. Forest Service personnel regularly work with Contractors, volunteers and youth crews to ensure compliance with objectives and project design. Exhibit 5 displays a typical form used for tracking each herbicide application. In addition a minimum of 50% of all treatment areas are monitored each year, allowing adaptive measures to be taken quickly if implementation monitoring shows non-compliance.

Effectiveness

Effectiveness monitoring is used to determine if objectives and desired conditions in the Forest LRMPs, 2005 R6 Preventing and Managing Invasive Plants ROD, and this Invasive Plant Treatments EIS are being achieved in a timely manner. Effectiveness of treatment and effectiveness of project design features will be monitored.

Discussions of past monitoring results of the invasive treatments allowed by the 1998 EAs can be found in Chapter 3 in the Treatment Effectiveness and Native Vegetation Sections of this document. This monitoring provided the framework for assumptions made about treatment effectiveness, and will also help prioritize future long-term monitoring.

A monitoring framework is provided by the R6 2005 ROD, to help Forests determine if actions are taking place as described in the EIS, and if progress towards the desired future condition is occurring. Effectiveness monitoring for individual treatments is critical to fine tuning prescriptions to local conditions. Treatment areas will likely be monitored several times because multiple treatments are generally necessary to control invasive plants and restore desired vegetation. Forest Service policy requires annual reporting of treatment effectiveness in the database "FACTS." FACTS protocols require at least half of all treatment areas to be visited and treatment effectiveness and efficacy reported.

The effectiveness monitoring strategy would be prioritized based on the issues, and on determining the effectiveness of PDCs, particularly long-term changes to both upland and riparian native plant communities. Treatments within Research Natural Areas would be included in the strategy, focusing on changes in plant communities, such as species composition and abundance. The PNW RNA Coordinator will determine which infestations will be monitored, and the protocol to be used. In addition, effectiveness monitoring would explore the effects to aquatic species habitat and non-target vegetation. Frequency and extent of monitoring would depend on yearly funding, with the top priority issues and treatment sites being accomplished first.

A protocol for monitoring effectiveness of measures intended to protect federally listed species is being developed jointly by the Forest Service, Pacific Northwest Region, and National Marine Fisheries Service. This strategy will be used to monitor high priority treatments within habitat of our listed species such as steelhead trout on the two Forests, and bull trout on the Crooked River National Grassland. Below is the Inventory and Monitoring Framework taken from the 2005 Region 6 Invasive Plant Treatments FEIS, which provides general monitoring requirements and protocol. This will be used for listed species as an interim process until the Region 6 Invasive Plant Monitoring Plan is in effect (estimated June 2009).

Inventory and Monitoring Framework

(APPENDIX M from the Invasive Plant Final EIS)

It is assumed every Forest in Region Six has an invasive plants coordinator and is maintaining an up-to-date invasive plant inventory using NRIS/Terra, the nationally accepted protocol. The inventory will be the primary means to plan and prioritize treatments. The inventory will be used as the main vehicle for tracking treatment effectiveness both regionally and on a site specific basis.

In addition to the monitoring that is already required under various Forest Plans, this inventory and monitoring plan framework is part of all action alternatives in this Environmental Impact Statement (EIS). The framework would guide the development of detailed monitoring plans at the site-specific project scale. Invasive plant treatment and

restoration actions are likely to be complex, involve multiple land ownerships and will take years to implement, due to the nature of invasive plant problems. It is likely that a site will be treated multiple times over the years. Tracking these efforts and subsequent progress will be crucial to determining success.

A good monitoring program will be well thought out and have a high probability of detecting change in the resource being monitored (NPS, 2002). The Field Guide to Invasive Plant Inventory, Monitoring and Mapping (USDA FS, 2002) has been developed to guide monitoring efforts in conjunction with NRIS/Terra. It suggests a monitoring regime may start with annual monitoring for the first 3-5 years, decreasing in frequency to every other year for the next 5-10 years and further decreasing monitoring frequency to every 3 years for the next ten years until the seed source has been exhausted (i.e. no new germination taking place).

Monitoring regimes may vary in time and space depending on the species; for example, those that reproduce vegetatively may require a longer span of annual monitoring. The monitoring categories described in this framework (implementation/compliance, and effectiveness (of treatments in meeting project objectives, and effectiveness of protection measures) can be used to implement a long-term adaptive management strategy. By implementing an adaptive management approach, managers will identify and respond to changing conditions and new information on an ongoing basis, and assess the need to make changes to treatment and restoration strategies.

Implementation/Compliance Monitoring

Implementation/compliance monitoring answers the question, “Did we do what we said we would do?” This question needs to be answered on a Regional scale, because adaptive management strategies require determination that actions are taking place as described in the Invasive Plants EIS.

If an action alternative is selected, each Forest Supervisor will be directed to assess compliance with the Invasive Plant Program EIS Record of Decision as a part of Forest Plan Implementation monitoring. Regional Office staff will periodically aggregate this information as a part of program oversight.

An implementation/compliance checklist database, such as the Pacfish/Infish Biological Opinion Implementation Monitoring module database for the eastside, could be used as a template to input and analyze implementation/compliance monitoring data. The use of a consistent reporting format will allow for aggregation of information at various scales. Such a system will be used to determine patterns of compliance.

Listed Species -- An implementation/compliance monitoring database would track invasive plant treatment projects that are the subject of Section 7 consultations under the Endangered Species Act (ESA), generate annual reporting of compliance for use by the Services (NOAA Fisheries, U.S. Fish and Wildlife) and Forest Service (FS), and allow for common reporting of data on individual projects. As a minimum, on each project requiring consultation, reporting will be required on compliance with Standards 16, 18, 19, and 20 in the Invasive Plant EIS. Additional standards could be included, as appropriate, for the individual ecoregions, Forests, or projects. For example, Northwest Forest Plan (NWFP) riparian standards relevant to herbicide use or invasive plant control projects could be included in the database for those Forests in the NWFP-covered areas.

Effectiveness Monitoring

Effectiveness monitoring, relative to project objectives, answers the question, "Were treatment and restoration projects effective?" This question could be answered on either a regional or a project-level scale. Invasive plant infestations require pre-project inventories to determine how, when, and where treatments are to be applied, and post treatment monitoring to assess the effectiveness (treatment) in meeting project objectives (e.g. restoring structure and composition of native vegetation).

A goal of the Effectiveness Monitoring component in the Regional Invasive Plant Program is to answer the following questions:

> Have the number of new invasive plant infestations increased or decreased in the Region or at the project level?
>
> What changes in distribution, amount and proportion of invasive plant infestations have resulted due to treatment activities in the region or at the project level?
>
> Has the infestation size for a targeted invasive plant species been reduced regionally or at the project level?
>
> Which treatment methods, separate or in combination, are most successful for specific invasive species?
>
> Which treatment methods have not been successful for specific invasive species?

The nation-wide NRIS/Terra database, and the upcoming FACTS database, provide common reporting formats to input information and provide a mechanism for addressing the above questions. In addition, current long-term ecological monitoring networks will assist the FS in determining trends of invasive plant infestations at the Regional level.

The NRIS/Terra database could be sorted to answer the above questions because it tracks size and species of infestations as well as treatment methods. The Forest Inventory and Analysis Network (FIA) or the Forest Health Monitoring plots associated with the FIA network could be used to follow invasion trends. Such networks could be used to track trends in the spread or reduction in spread of the more dominant invasive plants in the region. Monitoring programs developed at the Forest level would answer more project specific questions.

Listed Species - Monitoring that addresses the effectiveness of various measures designed to reduce potential adverse effects from the project, including standards in the EIS, "project design criteria", "design features", and "protection measures" may also need to be conducted. This type of monitoring will only be required for **a representative sample of** invasive plant treatment projects that pose a "high risk" to federally listed species. "High risk" projects are defined as projects with the potential to affect listed species, in the following situations:

- Any project involving aerial application of herbicide.
- Projects involving the use of heavy equipment or broadcast application of herbicide (e.g. boom spray or backpack spraying that is not limited to spot sprays) that occur in 1) riparian areas (as defined in NWFP, Pacfish, or Infish, as applicable), ditches or water corridors connected to habitat for listed fish; or, 2) proximity to federally listed plants or butterfly habitat.

For the purposes of determining the need for protection measure effectiveness monitoring, invasive plant treatment methods that are **not** considered "high risk" can include, but are not limited to, the following:

- Broadcast application of herbicide and use of heavy equipment that occurs **outside** of, riparian areas, ditches or water corridors connected to water bodies, or, 2) areas in proximity to federally listed plants or butterfly habitat.
- Manual methods including hand-pulling, grubbing, stabbing, pruning, cutting, etc.
- Mechanical methods using small equipment like chainsaws, or equipment rarely used and not often in proximity to listed fish habitat, like flamers, foamers, hot steam, etc.
- Prescribed fire used expressly for invasive plant control and which occurs outside of riparian areas or habitat for federally listed plants or butterflies.
- Herbicide applications using spot spray (used with a shield near listed plant locations)
- with a backpack sprayer, cut stump, injection, wicking wiping, basal bark applications, or other highly selective methods.
- Minor uses of fertilizer to encourage native plant competition or growth.
- Biological controls used in habitat areas for terrestrial wildlife or fish. Use in proximity to listed plants or butterflies should be evaluated on a case-by-case basis.
- Broadcast applications (except aerial) using clopyralid, imazapic, and metsulfuron methyl in proximity to habitat for listed fish or listed terrestrial wildlife.

A collection of several of these low risk projects in close proximity to each other and in proximity to habitat for listed species may constitute a "high risk" project, but this should be evaluated on a case-by-case basis.
Monitoring for "high risk" invasive plant treatments that may affect ESA-listed species or designated critical habitat should determine if standards and/or protection measures were effective at reducing potential effect pathways (e.g. disturbance, sedimentation, exposure to herbicides) and results should be applicable elsewhere. Unique, individual monitoring efforts and protocols have not provided information that is applicable to other areas or projects. Therefore, a Regional approach is outlined in this framework that will help address the needs for protection measure effectiveness at a broader scale. The regional approach will be developed in consultation with other agencies, including but not limited to National Marine Fisheries Service and U.S. Fish and Wildlife Service.

For example, Japanese knotweed is a serious invader of riparian areas and has the potential to alter ecosystems upon which listed salmon depend. The Region may have several Japanese knotweed treatment projects over the next several years and each one may have the potential to adversely affect listed salmon or designated critical habitat if adequate measures are not part of the treatment plan or are not complied with during implementation. Designing consistent monitoring protocol will allow a more efficient and effective evaluation of the project protection measures.

To meet the objective of being able to evaluate standards and measures applied at the Regional, sub-Regional, and project level for protection of ESA-listed species and/or designated critical habitat in "high risk" projects, an interagency monitoring protocol ***and reporting schedule*** will be developed by 2007. The expectation being that this protocol would be applied to high risk projects to determine the effectiveness of Regional EIS standards, and additional standards or protection measures applied at finer scales, in reducing potential effect pathways (e.g. disturbance, sedimentation, exposure to herbicides, etc.) for listed species.

In the interim, information obtained from implementation/compliance monitoring reports for "high risk" projects will be reviewed in 2005 and 2006 to inform the development of a consistent monitoring protocol for ensuring that standards and protection measures were effective. This 2-3 year lag time before protocol are developed and effectiveness monitoring is implemented does not apply to aerial application of herbicides. All projects with aerial applied herbicide will include a monitoring plan to assess the effectiveness of measures in protecting ESA-listed species and/or designated critical habitat.

Until a Regional, interagency effectiveness monitoring protocol for ESA-listed species and/or designated critical habitat is developed (2007), the need for effectiveness monitoring on "high risk" projects will be evaluated by Level 1 or other interagency technical teams during Section 7 consultation.

Recommendations for additional effectiveness monitoring beyond that described in this framework will require that Level 2 or other appropriate interagency management team agree to the recommendations of the technical or Level 1 team for the project. This process will help lead the Region toward efficient and reliable data collection and allow statistical analysis of the data gathered.

References

USFS (U.S. Forest Service). 2001. Invasive Plant Management Decisions and Environmental Analysis. USDA Forest Service

USFS (U.S. Forest Service). 2002. Field Guide – Invasive Plant Inventory, Monitoring and Mapping Protocol. USDA Forest Service.

NPS (National Park Service). 2002. Invasive Plants Inventory and Monitoring Guidelines, National Park Service

Exhibit 1: Invasive Plant Inventory Form, Revised 4/29/09

Ochoco National Forest and Crooked River NG Invasive Species Inventory Field Form

Adapted from NRIS Invasive Plant Data Recording Protocols *(* designates required fields)*

General Information

*Site ID: *06070*_____	*Date:_____ (MM/DD/YYYY)	New Site? Re-visit? (circle one)
*Examiner (Last, First, MI)		
*Region: *06* Forest: *07*	*District:	*State: *OR*
*County:	*Ownership:	

Location

Site Location/Project Name:	
*Legal Description T._____ R._____ Sec., _____ ¼ _____ *Willamette Meridian*	
UTM's easting_____ northing _____ *Zone 10 NAD 27*	
Latitude/Longitude:	
* 6th-Field HUC:	* Slope _____%

Data Elements

Note: if plant code is not in the NRCS-PLANTS database, enter NO-XWALK in the plant code

(see back of form) *Species Code_____	*Species Category: Plant Pathogen Vertebrate Invertebrate
Total Area (gross ac)_____	Fractions of an acre: 1 acre = 209'x 209'= 43,560 sq. ft. 0.1 acre = 66'x 66' = 4,358 sq. ft. 0.01 acre = 20.1'x 20.1' = 436 sq. ft. 0.001 acre = 6.1 x 6.6' = 43.6 sq. ft.
* % Infested _____ (% of Total Area occupied by the target species)	

Distribution (Circle one)
CL Clumpy SE Scattered Even SP Scattered Patchy LI Linear

Cover refers to the collective canopy area of this weed species at this site, and is described by using the Ten Point Cover Class Code (NRMCOV). Either a Cover Class or Cover % is required

Canopy Cover Code _____

T = 0-1.0%	2 = 15.1-25.0%	4 = 35.1-45%	6 = 55.1-65.0%	8 = 75.1-85.0%	A = 91.1-99.0%
0 = 1.1-5.0%	3 = 25.1-35.0%	5 = 45.1-55%	7 = 65.1-75.0%	9 = 85.1-95.0%	X = 99.1-100%
1 = 5.1-15.0%					

*Soil Texture (circle one): clay clay loam loam sand silt silt loam sandy loam

Soil / Site Comments:_____

Landform (circle one or more): road, ridgetop, creek, swale, seep/spring, bench, slope, flat, talus

*Horizontal Distance to Water:_____*Feet* Vertical distance to Water:_____*Feet*

Species Count_____ Plants Stems

Phenology (circle all that apply): seedlings / rosettes / 1st year plants bolted / mature plants / previous yr seedheads

Proposed Treatment:_____

Plant Codes

Bull Thistle= CIVU	Morning Glory= COAR4	Spotted Knapweed= CEBI2
Canada Thistle= CIAR4	Musk Thistle= CANU4	St. Johnswort= HYPE
Common Mullein= VETH	Oxeye Daisy = LEVU	Sulfur Cinquefoil= PORE5
Dalmation Toadflax= LIDAD	Perennial Pepperweed= LELA2	Tansy Ragwort= SEJA
Diffuse Knapweed= CED13	Poison Hemlock= COMA2	Teasel= DIFU2
Houndstongue= CYOF	Puncture Vine= TRTE	Yellow Starthistle= CESO3
Leafy Spurge= EUES	Russian Knapweed= ACRE3	Yellow Toadflax= LIVU2
Mediterranean Sage= SAAE	Scotch Broom= CYSC4	Whitetop= CADR
Medusahead Rye= TACA8	Scotch Thistle= ONAC	

Treatment _____ **(**H-Herbicide B-Biological N-None M-Manual ME-Mechanical)
Date _____

Date Monitored _____ Monitoring Efficacy (%) _____ Comments_____

Site Comments and Directions: _____
_____
_____
_____
_____
_____

SITE MAP

Exhibit 2: Example of Invasive Plant Site Treatment Implementation Guide

Invasive Plant Site #: **EIS Project Area Unit:**

Location & Description:

INSERT MAP

Invasive Species Present:

Treatment and Schedule

Applicable Project Design Features

Botany

Aquatic

Wildlife

Cultural

Other Information (e.g. partners, effectiveness monitoring to occur post-treatment)

Exhibit 3: FS2100-2, Pesticide Use Proposal Form

PESTICIDE - USE PROPOSAL (Reference FSM 2150)	DEPARTMENT/ AGENCY	CONTACT/PHONE NO.	
	REGION	FOREST	DATE SUBMITTED

1) OBJECTIVE a) Project No. b) Specific Target Pest c) Purpose	 _____ _____ _____
2) PESTICIDE a) Common Name b) Formulation c) % AI,AE,or lb / Gal. d) Registration No.	 _____ _____ _____ _____
3) a) Form Applied b) Use Strength (%) or Dilution Rate c) Diluent	 _____ _____ _____
4) lbs. AI Per Acre or Other Rate	 _____
5) APPLICATION a) Method b) Equipment	 _____ _____
6) a) Acres or Other Unit to be Treated b) Number of Applications c) Number of Sites d) Specific Description of Sites	 _____ _____ _____ _____
7) a) Month(s) of Year b) States	 _____ _____
8) SENSITIVE AREAS a) Areas to be Avoided b) Areas to be Treated with Caution	 _____ _____

9) REMARKS a) Precautions to be Taken b) Use of Trained / Certified Personnel c) State and Local Coordination d) Other Pesticides Being Applied to Same Site e) Monitoring f) Other	_____ _____ _____ _____ _____ _____
Approval (Signatures of Approving Official)	Date (mm/dd/yy):

Instructions for completing Form FS-2100-2, Pesticide Use Proposal
Heading - Provide requested information.

OBJECTIVE (Block 1)
a) Project Number - Assign in accordance with field IPMWG procedures.
b) Specific Target Pest - Identify the target pest by common and scientific name. Identify life cycle stage for animals
or stage of growth for plants (e.g. emergent or pre-emergent, seedling, sapling, etc.)
c. Purpose - State exact purpose of pesticide use.

PESTICIDE (Block 2)
a) Common name of active ingredient(s) as indicated on the pesticide label. When a combination of pesticides are to be used on a single pest, use the word "AND" in listing the pesticide names. When alternate materials are proposed, use the word "OR" in listing the names.
b) Indicate product formulation (i.e., amine, ester, emulsifiable concentrate, granules, solution, etc.).
c) Percentage active ingredient, acid equivalent, or pounds per gallon (as indicated on the pesticide label).
d) List the EPA registration number from the pesticide label.

PESTICIDE - continued (Block 3)
a) Form Applied - e.g., dust, granule, emulsion, bait, solution, gas, etc.
b) Use strength or Dilution Rate - List the quantity of concentrate mixed with the quantity of diluent or indicate the percentage strength of the formulation.
c) Diluent - Identify the pesticide carrier, i.e., water, oil, talc, kerosene, etc.

PESTICIDE - continued - (Block 4)
Pounds of Active Ingredient Per Acre or Other Rate - State pounds of active ingredient per acre to be applied, unless some other unit is indicated. If reporting in acreage is not appropriate, indicate units used. Indoor applications of residual sprays may be expressed as percent of actual ingredient in the prepared spray in gallons per M (1,000) square feet. Point of runoff, which may appear on a label is generally considered to be 1 gallon per 1,ooo square feet on most indoor surfaces. If dusts are used instead of sprays, express as ounces or pounds of prepared dust per M (1,000) square feet. Treatment of trees is listed by number of trees or if application is by hydraulic sprayer, is expressed as pounds or quarts of concentrate per 100 gallons of diluent - oil or water, whichever is used. If the pesticide for trees or brush is applied by air or mist blower, express as pounds of active ingredient per acre. Fumigants or inside aerosols are expressed as pounds of the fumigant or aerosol per M (1,000) cubic feet. Rodent baits should be listed as ounces or pounds of the prepared bait per bait station. Treatments in water may be expressed in parts per million (ppm) by weight or volume - specify. In spot applications, the rate of application is expressed in pounds or gallons per 1,000 square feet indoors or pounds per acre of active ingredient outdoors applied to the spot area treated.

APPLICATION - (Block 5)
Indicate as specifically as possible the method (i.e., aerial, ground, etc.) of application and the type of equipment such as helicopter, hand compression sprayer, mist-dust blower, hydraulic sprayer, injector, etc.

APPLICATION - (Block 6)
a) Acres or Other Unit to be Treated. State in terms of acres, unless otherwise indicated. Some projects may require repeat applications. Report only the units to be treated for the first application.
b) Number of Applications - For projects that require repeat applications to the same area, indicate their estimated number and their timing.
c) Number of Sites - If the reported figures are a consolidation from several locations, indicate the number of locations.
d) Specific Descriptions of Sites - Indicate the type of area and pertinent portion of the area to be treated; such as ditchbank, rangeland, powerline right-of-way, tree nursery, etc. Specify if pesticide is to be applied in or around water and whether it will be applied directly to water or to the shore. Where applicable, indicate the slope of the treated area. For aquatic use, indicate water quality (hardness and pH) if available or applicable.

APPLICATION (Block 7)
a) Month(s) of Year - State month(s) of year.
b) State(s) - Indicate State and other designation that identifies the area geographically.

SENSITIVE AREAS (Block 8)
a) Areas to be Avoided - Identify sensitive areas to be avoided. Indicate if the area is subject to inadvertent treatment as a result of drift. Describe fully in "remarks" (Block 9) what protective measures are to be taken.
b) Areas to be Treated with Caution - Identify sensitive areas to be treated with special precautions to avoid contamination.

REMARKS (Block 9)
Use this line for information which will be helpful to the field IPMWG in evaluating the project.

a) Precautions to be Taken - Describe specific precautions be taken to protect sensitive areas; for example, no application within 100 feet of streams.
b) Use of Trained / Certified Personnel - Provide information on the status of training and/or certification of personnel doing the actual work and of those supervising. Has project been reviewed by a field biologist, agronomist, entomologist, or other appropriate subject matter specialist?
c) State and Local Coordination - Indicate coordination on the project at a State or local level.
d) Other Pesticides Being Applied to Same Site - Indicate what other pesticides are being or will be applied on the same site within the year.
e) Monitoring - Describe any monitoring of the operation be to conducted. Indicate effectiveness of prior projects and mention undesirable side effects observed.
f) Other - Indicate if the project is to be accomplished by contract.

Environmental analyses (EA's and/or EIS's) may be referred for additional information.

APPROVAL (Block 10)

a) Signature of Approving Official
b) Date of Signature

Exhibit 4. Example of a Public Notice of Herbicide Use for Publication in Newspaper.

PUBLIC NOTICE

Deschutes National Forest Integrated Weed Management Program

An integrated weed management program which includes the use of herbicides, hand pulling, and biological controls will be implemented on the Deschutes National Forest from June 1 to September 30, 2007. The locations and acreages of sites to be treated with herbicides are listed below:

Bend-Ft. Rock Ranger District: (Roads and legal locations listed)

Crescent Ranger District: (Roads and legal locations listed)

Sisters Ranger District: (Roads and legal locations listed)

All restrictions and regulations regarding the use of herbicides will be followed as stated in the Region 6 Invasive Plant Treatments FEIS and the Environmental Impact Statement for the Invasive Plant Treatments on the Deschutes and Ochoco National Forests and Crooked River National Grassland.

Herbicides will be applied directly to target weeds. Application dates are weather dependent. High use recreation areas and other areas of human use will be posted prior to spraying.

Persons who are known to be or suspect that they are hypersensitive to herbicides may contact the Forest Service to determine the appropriate risk management measures.

Questions regarding specific project areas, timing and treatment may be obtained by calling Debra Mafera at (541) 416-6588, or Dave Langland at Oregon Department of Agriculture, (541) 548-2241.

Exhibit 5. Example of Implementation Monitoring Form

Implementation Monitoring Form for Invasive Weed Treatments

This tracking form is to be completed by a contract administrator, licensed applicator, or specialist after treatment of invasive plants on National Forest lands. The purpose of this form is to monitor the implementation of projects covered under the Deschutes & Ochoco National Forests and Crooked River National Grassland Invasive Weed EIS. Projects that were determined to have the likelihood of an adverse effect on protected, endangered, threatened, or sensitive species prior to implementation will have an implementation monitoring form completed.

Project Name:_____ Implementation Date:_____

Name of Implementation Plan:_____

Weed(s) targeted:_____

_____

_____

Treatment Method: ( ) Herbicide ( ) Manual ( ) Mechanical ( ) Cultural

Herbicide Formulation(s):_____

Herbicide application method:_____

Herbicide rates used:_____

Acres treated:_____ First, second, or third year of implementation:_____

If in riparian area, what waterbody was project implemented adjacent to?

Lake/Wetland Name:_____

Stream Name:_____HUC 6:_____

Species of local interest found through pre-project implementation review:
( ) fish ( ) wildlife ( ) botany

Species names:_____
_____

Project Design Features applied:

Ochoco NF / Deschutes NF / Crooked River NG
Mineral Material Source Weed Inspection Form NRIS Site #_____

Pit Name: _____ Pit Cleared: Y N Conditional ___
Location: _____ Forest: _____
Public: ___ Private: ____ District: _____
Owner/Operator Name, Address, Tel. #:
_____
_____
_____

Weeds Present: Y N Species: _____
Population Size/Density/# of plants: _____
General weed location (narrative): (map on back)
_____
_____
_____

Project Name: _____
Type of Project: _____

Risk Assessment: H M L
Risk Narrative / Explanation: _____

Recommendations(Conditions/Mitigations):_____
_____
_____

___ Do not use
___ Notify owner by Letter
___ Treat Weeds before Use

_____ _____
Inspected by Date of Inspection

Exhibit 7: Project Review for Heritage Resources under the Terms of the 2004 Programmatic Agreement among the USFS R6, ACHP, and SHPO, June 2004.

Forest:	
Ranger District:	
County:	
Undertaking/Project Name	
USGS Quads:	

By signing this document, the Forest Specialist certifies that for this project the Forest complies with Section 106 of the National Historic Preservation Act, under the terms of the 2004 Programmatic Agreement (PA) for the State of Oregon. This form shall be kept on file as supporting documentation

	Stipulation III (A) 1	Undertaking meets the criteria listed in Appendix A of the PA
	Date:	Inspection, monitoring, or other identification will be submitted to the Forest Specialist.
	Stipulation III(A)2	Undertaking meets the criteria listed in Appendix B of the PA.
	Date:	Inspection, monitoring, or other identification will be submitted to the Forest Specialist.
	Stipulation III(A)3	Undertaking meets the criteria listed in Appendix C (Exempt/Non-undertaking).
	Stipulation III (B)1	Undertaking meets the criteria in the PA for a No Historic Properties Affected determination.
	Stipulation III(B)2	Undertaking meets the criteria in the PA for a Historic Properties Avoided determination.
	Stipulation III(B)3	The Forest has notified interested Tribes and persons, as appropriate, of the findings and made the findings available to the public.
	Stipulation III(B)5 Date:	No Adverse Effect (No Historic Properties Affected). The Forest finds that there are historic properties but the undertaking will have no effect on them as defined by 36 CFR 800.16(i). SHPO review period (30-day) required.
	Stipulation III(B)6 Date:	Historic Properties Affected: The Forest Service shall consult according to 36 CFR 800.5.

Forest Specialist	**Date**

For SHPO USE: For Historic Properties Adversely Affected, please indicate your opinion of our determination by marking the appropriate box below, sign and return this form to the Forest.

	I concur with No Historic Properties Affected	
	I do not concur, because in my opinion	
	Date Received	
	SHPO Bibliographic Number:	

Exhibit 8. Example of Project Consistency Evaluation Form to be used for treatment of PAUs and EDRR areas (Exhibit 8) that "may affect" federally ESA-listed species.

PROJECT CONSISTENCY EVALUATION FORM

Project Name: _____Project Coordinator: _____

LOCATION INFORMATION

Forest: _____	District: _____
T.R.S.: _____	Watershed/HUC6: _____
PAU #: _____	Non- PAU: _____
Size of Area Treated: _____	

TREATMENT

Treatment Type:	Herbicide	Non-Herbicide	Hand-Pull
Target Vegetation:			
Application Method:	Broadcast	Spot	Hand
Strategy:	Control	Eradicate	Contain

Is this a re-treatment? Yes No If Yes, list number of treatment: _____

Scheduled Treatment Date(s) Start _____ End _____

TREATMENT AREA

Veg Type	Forested	Road Prism Rd # _____	Riparian/Wetland	Emergent Veg H_2O body_____
# Acres				
% of Area Infested				
Total				

HERBICIDE INFORMATION

Product Name	Herbicide Name	Application Rate

EFFECTS

Is the project within ¼ mile of an activity center? Yes No

Name of activity center:
_____

Does treatment occur between March 1 and Sept. 30? Yes No

Effects Determination No Effect NLAA

Describe rationale for effects determination:

CONSISTENCY WITH EIS AND CONSULTATION

Did the project implement PDFs as outlined in the EIS/BA? Yes No

If not, explain and forward form and issue to Level 1 Representative

Attach project map and species habitat and location/distribution maps.

Project
Biologist:_____

Date: _____

Exhibit 9. Project Consistency Evaluation Forms for treatment of PAUs that "may affect" federally ESA-listed species.

PROJECT CONSISTENCY EVALUATION FORM - Part I
Deschutes and Ochoco National Forest Early Detection Rapid Response -

*****PROJECT LEAD, ATTACH PROJECT LOCATION MAP and HERBICIDE APPLICATION RECORD*****

Project Name: _____ District: _____ Size of area treated (Acres or miles): ____
Watershed(s) and Hydrologic Unit Code(s) _____ HUC6: _____
Legal Description (T/R/S): _____ Project Coordinator: _____
Project Reviewer for _____ Title:
Treatment Type (Herbicide or non- _____
List Target Vegetation:

List tools or herbicide method planned for use:

Vegetation type: (acres or % of project area)	Forested	Road prism (Rd number):	Riparian/wetland	Emergent Vegetation:

Treatment Strategy (control, eradicate, or contain):

Is this a re-treatment?: If yes, list number of

Herbicide Information for Riparian and Emergent Vegetation Treatments

Is there a tank mixture?: If yes. attach tank mixture analysis to this
List waterbody
T&E fish species Fill out Part II for each species.

In-stream work window, if Effective treatment required outside in-stream work
List applicable herbicide use buffers:

Surfactants:

Scheduled treatment dates and Star _____ End _____
Fiscal years in which project will

Herbicide Information:

Product Name	Broadcast, spot or hand	Total amount of herbicide applied in area treated (lb)	Herbicide applied per acre (lb/acre)	Concentration applied

Other additional information:

Project Consistency Evaluation Form – Part II
Deschutes and Ochoco National Forest Programmatic Early Detection Rapid Response
Specific Species Information
FISH CODES: MCS = Middle Columbia River Steelhead, EFH = Spring Chinook Essential Fish Habitat, CBT = Columbia River Bull Trout

1. Is the project in a sixth-field watershed that contains listed fish or designated critical habitat (Y/N)?

If No ➧ What is your basis for this determination? _____

Project will have No Effect on listed fish or designated critical habitat

If Yes ➧ go to question 2.

2. Do the stream(s) in which impacts may occur contain suitable habitat for listed fish? _____ (Y/N)

If Yes, what species? _____

3. How far (approx., in river miles) is project from nearest suitable habitat or listed fish species? _____

4. Does the proposed action have the potential to alter or affect the following indicators: temperature, sediment, herbicide contamination/nutrients, physical barriers, substrate embeddedness, large woody debris, pool frequency, pool quality, off-channel habitat, refugia, wetted width/depth ratio, streambank condition, floodplain connectivity, peak/base flows, drainage network, road density and location, disturbance history, function of riparian reserves in a manner that was not considered in the Invasive Plant EIS? Yes or No

If No ➧ Project will have No Effect on listed fish or designated critical habitat. List the fish for which the project will have No Effect:

If Yes ➧ Use Decision Pathway for Aquatic Effects Determinations to make effects determination, Enclosure A

Check Effects Determination for each listed species using codes:	_____	NE	_____	NLAA	_____ LAA
Critical Habitat	_____	NE	_____	NLAA	_____ LAA

Rationale (based on project info and required conservation measures):

Project Conservation Measures (see project descriptions, generate additional measures if necessary):

Submitted by: _____ Date: _____

Forest Service Fisheries Biologist

Level 1 Concurrence (required only

for LAA):

Forest Service Representative	NMFS Representative
USFWS Representative	Date:

*****ATTACH PROJECT MAP AND SPECIES HABITAT/LOCATION MAPS*****