

# APPENDIX E

## Beyond Prevention: Site-Specific Invasive Plant Treatment Project

Clallam, Grays Harbor, Jefferson, and  
Mason Counties in the State of Washington

### Implementation Monitoring and Reporting Forms and Requirements



Checking for non-vascular species of local interest



*This Appendix shows examples of forms that would be used to document and report herbicide use.*

**Sample Implementation Monitoring Form to Track  
Invasive Weed Treatments on  
Olympic National Forest**

This tracking form is to be completed by a contract administrator, licensed applicator, or specialist after treatment of invasive weeds on National Forest lands. The purpose of this form is to document how Project Design Features are applied and non-target resources are protected as per the Olympic National Forest Site-Specific Invasive Plant Treatment EIS.



Project Name: \_\_\_\_\_

Implementation Date: \_\_\_\_\_

Target Species: \_\_\_\_\_

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

Herbicide Formulation(s): \_\_\_\_\_

Herbicide application method: \_\_\_\_\_

Herbicide rates used: \_\_\_\_\_

Acres treated: \_\_\_\_\_ Is this a re-treatment, if so, how many previous visits? \_\_\_\_\_

If in Aquatic Influence Zone, name adjacent waterbody and HUC 6

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 (PDF)

Use back of sheet to document compliance with PDFs from the Invasive Plant Treatment EIS.

The following is an example from the State of Washington Department of Agriculture. The applicator and/or landowner/manager retains this form.

State of Washington  
 Department of Agriculture  
 Olympia, Washington 98504

### PESTICIDE APPLICATION RECORD (Version 1)

**NOTE:** This form must be completed same day as the application and it must be retained for 7 years (Ref. chapter 17.21 RCW)

1. Date of Application - Year: ..... Month: ..... Day: ..... Start Time: .....  
 Stop Time: .....
2. Name of Person for whom the pesticide was applied: .....  
 Firm Name (if applicable): .....  
 Street Address: .....  
 ..... City: ..... State: ..... Zip: .....
3. Licensed Applicator's Name (if different from #2 above): ..... License No. ....  
 Firm Name (if applicable): .....  
 Tel. No.: ..... Street Address: .....  
 ..... City: ..... State: ..... Zip: .....
4. Name of person(s) who applied the pesticide (if different from #3 above): .....  
 ..... License No(s), if applicable: .....
5. Application Crop or Site: .....
6. Total Area Treated (acre, sq. ft., etc.): .....
7. Was this application made as a result of a WSDA Permit?  No  Yes (if yes, give Permit No.) # .....
8. Pesticide Information (please list all information for each pesticide, including adjuvants (buffer, surfactant, etc.), in the tank mix):

a) Full Product Name	b) EPA Reg. No.	c) Total Amount of Pesticide Applied in Area Treated	d) Pesticide Applied/Acre (or other measure)	e) Concentration Applied
			/	
			/	
			/	
			/	

9. Address **or exact location** of application. NOTE: If the application is made to one acre or more of agricultural land, the field location must be shown on the map on page two of this form.
10. Wind direction and estimated velocity (mph) during the application: .....
11. Temperature during the application: .....
12. Apparatus license plate number (if applicable): .....
13.  Air  Ground  Chemigation
14. Depth of application / inches of water (chemigation): .....
15. Miscellaneous information:

**Location of Application:** If the application covers more than one township or range, please indicate the township & range for the top left section of the map only:

Township: ..... N

Range: E OR W (please indicate) .....

Section(s): .....

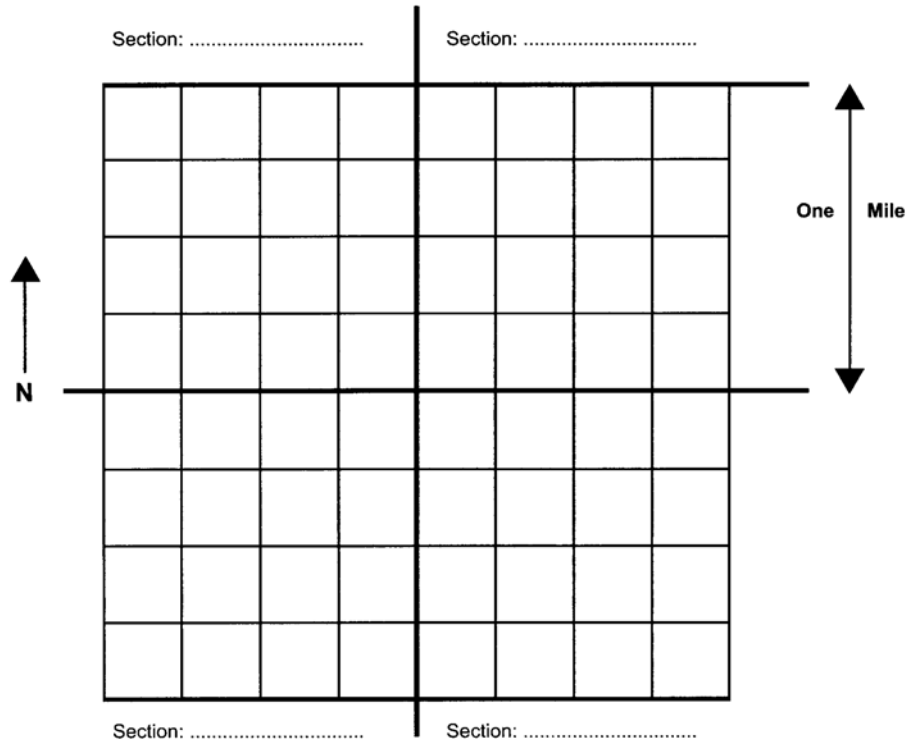
Block: ..... Farm Unit: .....

or GPS: .....

County: .....

**PLEASE NOTE:**

*The map is divided into 4 sections with each section divided into quarter-quarter sections. Please complete it by marking the appropriate section number(s) on the map and indicate as accurately as possible the location of the area treated.*



Miscellaneous Information:

*The following is a reprint of FSH 2109.14 – Forest Service Pesticide-Use Management and Coordination Handbook (12/06/1994) Chapter 10. The handbook demonstrates the work planning and safety requirements that would be applied to all herbicide use.*

#### **FSH 2109.14 - PESTICIDE-USE MANAGEMENT AND COORDINATION HANDBOOK**

This chapter directs the planning of all pesticide-use management and coordination activities. Personnel in the following positions have particular responsibility for compliance with this planning direction: pesticide specialists, pesticide project coordinators, incident commanders, pesticide researchers, and resource managers.

**11 - DETERMINATION OF PESTICIDE-USE NEED.** All pesticide-use activities on National Forest System lands must be consistent with the standards and guidelines and other management direction in applicable Forest land and resource management plans (Forest plans) (36 CFR Part 219). Forest plans (FSM 1920) generally mandate principles of Integrated Pest Management (IPM) for management of forest pests such as insects, diseases, animals, and unwanted vegetation. Forest plans should also contain standards and guidelines for managing pests in areas as diverse as Wilderness, seed orchards, nurseries, and multiple-use areas.

The IPM process involves the collection and synthesis of available knowledge on pest/host relationships. This information includes:

1. The ecology of pest/host systems;
2. The impacts of unregulated pest populations on resource values;
3. The effects of alternative pest management strategies on pests and resources of immediate concern, other pest organisms, and the forest ecosystem in general; and
4. The economic and social implications of alternative management strategies.

The objective of the process is to identify strategies that are effective and ecologically and socially acceptable.

Land management and pest management objectives affect the entire project planning process. Objectives of pest management projects can range from avoiding a potential pest problem to suppression of an insect, disease, weed, or animal population. Objectives may determine: the feasibility of the action proposed; the timing of the treatment, the number of treatments needed; if a pesticide-use alternative is selected, which pesticide is most appropriate; and so on.

**11.1 - Biological and Ecological Conditions.** Base decisions to use pesticides on biological and ecological conditions, specific resource objectives for a given area, and public perception of the need for specific pest management action.

**11.2 - Public Concerns.** Neighboring residents and visitors to National Forests are often concerned about pest problems. Forest managers must be in a position to respond to these concerns. When pesticides are being considered for pest problems on forested lands, involve the public early in an open process to determine the issues associated with a proposed action. Follow all guidelines for public involvement in FSM 1950 and FSH 1909.15.

12 - DETERMINATION OF KIND OF PESTICIDE NEEDED. Determine the kind of pesticide needed for a pest management project based on the pest involved. Select the pesticide most appropriate for the job.

"Pesticide" (sec. 05) is an all inclusive term that means "killer of pests"; however, most pesticides are designed to control a particular group of organisms: insecticides for insects, fungicides for fungi, herbicides for vegetation, nematicides for nematodes, rodenticides for mice and rats, avicides for birds, pesticides for fish, and animal damage control chemicals for vertebrate pests. Other chemicals are classified as pesticides although their mode of action may not be "to kill." For example: defoliants remove leaves, growth regulators stimulate or retard growth, desiccants dry out plants and animals, attractants lure pests, repellents deter pests, and disinfectants destroy or inactivate potentially harmful microorganisms.

13 - PESTICIDE-USE PROPOSALS. Use the Pesticide-Use Proposal (Form FS-2100-2) as part of the environmental analysis process to show a proposed pesticide use is appropriate (sec. 74).

13.1 - Preparation. Instructions for preparing a Pesticide-Use Proposal (Form FS-2100-2) are included on the form.

13.11 - Pesticides Proposed for Use on National Forest System Lands. (FSM 2152). On National Forest System lands, District personnel prepare or coordinate all proposals for pesticide uses on the District. These include uses by licensees, permittees, grantees, States, and other Federal agencies. The District Rangers review and approve pesticide proposals within their delegated authorities and forward the remainder, not under District Ranger authority, to the Forest Supervisor. Forest Supervisors screen and consolidate proposed District program needs, add uses not indicated by the District Ranger, and review and approve, if appropriate, those pesticide uses that are under their approval authority. Forest Supervisors forward the proposals not under their authority to the Regional Office for review, concurrence, and/or approval (FSM 2151).

13.12 - Pesticides Proposed for Use in Cooperative Pest Management Programs. (FSM 2152.2).

13.13 - Pesticides Proposed for Use in Research. Project leaders or research scientists planning to use pesticides in research must prepare a Pesticide-use Proposal (Form FS-2100-2) for field experiments and Technology Development Projects (FSM 2152.3). The Pesticide-Use Proposal (Form FS-2100-2) is not required for laboratory screening studies or the proposed use of housekeeping-type pesticides (sec. 31.2) for project maintenance in research areas.

13.2 - Review. Designated District, Forest, Station, Area, Institute, and Regional pesticide coordinators review the Pesticide-Use Proposal (Form FS-2100-2) for completeness and accuracy of information (FSM 2151). These personnel should also review biological evaluations or environmental assessments that include biological, human health and safety, environmental, and economic information pertinent to the proposed use. These documents explain why the proposed action is necessary. Evaluations to assist in decisionmaking are related but not the same as review, concurrence, and approval. Include reports such as biological evaluations and environmental assessments with applications for review, concurrence, and approval by decisionmakers when appropriate.

13.3 - Concurrence. Reviewers, such as District Rangers, Forest Supervisors, Group Leaders, Project Leaders, or designated pesticide coordinators shall show concurrence by initialing the Pesticide-Use Proposal (Form FS-2100-2), if the review indicates a proposed pesticide use is appropriate (FSM 2151).

13.4 - Approval. Regional Foresters or their designated representatives must approve all proposed pesticide uses on National Forest System lands (FSM 2151). Approval is indicated by signing the Pesticide-Use Proposal (Form FS-2100-2). Housekeeping and other minor uses of pesticides that do not require Pesticide-Use Proposals may be approved orally (FSM 2151). Only the Regional Forester can approve pesticide use in designated Wilderness Areas (FSM 2323.04c), wilderness study areas, or designated or candidate research areas, and any use of sodium cyanide. This approval authority cannot be redelegated.

13.5 - Documentation and Filing. Use a Pesticide-Use Proposal (Form FS-2100-2) to show review and concurrence by District Rangers, Forest Supervisors, Project Leaders, or designated pesticide coordinators and approval signature by the Regional Forester, Station Director, Area Director, Institute Director or their delegated representative.

Keep Pesticide-Use Proposals on file until all projects covered by the proposal are completed and follow the disposition instructions in FSH 6209.11.

14 - PLANNING FOR PROJECT IMPLEMENTATION. Planning for pesticide project implementation involves evaluation of how the project work is to be performed and by whom. Every pesticide-use project has somewhat different needs and requirements. Thorough advance planning is necessary to ensure that all needed services and supplies are provided in an efficient manner consistent with project objectives. Plan for the operational use of pesticides in forestry by determining the appropriate method of application and equipment/personnel needs, and by developing project work plans.

14.1 - Choosing Application Methods. Evaluate all aspects, from management and economic constraints to mitigation measures, when deciding upon the application method for a pesticide-use project.

Occasionally, Forest Service pesticide-use policy (FSM 2150) and/or administrative decisions dictate the method of pesticide application to be used. For example, the Chief of the Forest Service may temporarily defer certain kinds of pesticide application (such as aerial use of herbicides) until satisfied that agency documentation in compliance with the National Environmental Policy Act (NEPA) is adequate (FSM 1950).

14.2 - Equipment/Personnel Needs. Planning for the appropriate kinds of equipment and personnel needed for a particular pesticide-use project is extremely important and should be done well in advance of the intended treatment.



14.3 - Project Work Plans. Prepare a project work plan to assist in determining the kinds of equipment and personnel needed for a pesticide-use project.

Project work plans must present the organizational and operational details of projects. Work plans are the basis for determining cost and personnel requirements. Work plans also serve as valuable training tools for new personnel and are useful in identifying and correcting trouble spots. The scope of a plan depends on the magnitude of the operation; pesticide chosen; the rate, timing, and method of application; the number and nature of sensitive or high-value areas requiring monitoring within and adjacent to the treatment area; and public concerns about the program.

As a minimum, project work plans involving pesticides shall consist of:

1. A precise statement of the treatment objective(s);
2. A description of equipment, materials, and supplies, including pesticide formulation and application methods to be used;
3. A description of the organization of field crews and lines of responsibility (ch. 30);
4. A description of interagency coordination;
5. A copy of the Pesticide-Use Proposal (Form FS-2100-2) for the project<sup>1</sup>; and
6. A description of the process by which treatment effectiveness will be determined.
7. A description of personal protective clothing and equipment required.

14.4 - Planning for Completion of Work. Projects can be implemented in several ways:

1. Force account;
2. Contract; or
3. A combination of force account and contract.

Comply with the specific direction for contracting for goods and services in FSM 6320. However, the following guidance provides additional assistance to pesticide project planners in evaluating available options.

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<sup>1</sup> A copy of the Pesticide Use Proposal Form has been added to Appendix E to show the type of information that would be recorded prior to herbicide treatment.

14.41 - Force Account. Projects carried out using only Forest Service-supplied goods and services are called force account.

14.42 - Contract. Contracts associated with pesticide application projects may involve a wide spectrum of contractor-furnished equipment, services, and supplies. Contracts may be awarded that include any or all of the following as obligations of the prime contractor:

1. Application services such as using aerial, ground, mechanical, or hand application equipment;
2. Observation aircraft services such as the use of helicopters or other aircraft as guidance or monitoring aids during aerial application projects;
3. Support equipment such as tanks or trucks for mixing, loading, or transporting pesticides or maintenance/service vehicles;
4. Pesticides and adjuvants such as stickers, spreaders, and dyes;
5. Support personnel to assist in the conduct of a particular pesticide application project;
6. Project management personnel;
7. Pre-application and post-application monitoring personnel;
8. Weather or spray monitoring personnel; and
9. Transportation, storage, and disposal of pesticides (ch. 40).

14.43 - Combination Force Account/Contract. Any combination of project implementation methods outlined in sections 14.41 and 14.42 can be used, as well as cost-share agreements and inter-agency and intra-agency cooperative agreements.

15 - QUALITY CONTROL PLANNING. Quality control in pesticide application includes all actions taken to ensure pesticides have been applied effectively, safely, and with minimal potential for adverse effect on the environment and unnecessary exposure to pesticide workers and the public. Planning for quality control involves:

1. The determination and establishment of procedures to ensure project effectiveness;
2. The use of models that can predict pesticide applications; and
3. Training of personnel who influence quality during pesticide application.

Procedures for the application of quality control measures are covered in chapter 50.

15.1 - Product Effectiveness. Use only those pesticide products registered by the U.S. Environmental Protection Agency and appropriate State agencies. Use them according to all label directions.

Pesticide product labels provide maximum application rates for various pests and sites. In some situations, field tests or other recommendations may indicate lower application rates may be equally effective. Implement the results of field tests or other recommendation when the proposed application is sufficiently similar to test conditions.

In some circumstances it may be appropriate to analyze a delivered product for potency and acceptability. Testing for product acceptability may be necessary if there has been:

1. Prior failure of a pesticide to perform as well as projected;
2. Prior failure of a manufacturer or distributor to deliver a properly formulated product;
3. Prior instances of unacceptable microbial or other foreign matter contamination; or
4. Prior experience with products varying in their level of potency or infectiousness.

15.2 - Pesticide Aerial Application Models. Use pesticide-application computer models where appropriate to plan for pesticide application projects. Modeling can reduce the need for expensive spray trials. Such models can be used to estimate swath widths and spray displacement (drift), compare the performance of aircraft, measure effects of terrain, compare nozzle/boom placement, and measure the effects of wind and weather on pesticide behavior, spray deposition, and canopy penetration. For advice on access to or directions on how to use these models, contact the USDA Forest Service Aerial Application Pesticide Specialist in Davis, California; phone - (916) 551-1715; Fax - (916) 757-8383.

15.21 - Forest Service Cramer, Barry, Grimm (FSCBG) Model. Use the Forest Service Cramer, Barry, Grimm (FSCBG) model to calculate spray concentrations, dosages, and deposition above and within forest and rangeland canopies and spray deposit within canopies on the forest floor. FSCBG predicts spray behavior from multiple spray swath applications and is a useful tool for planning, conducting, and evaluating aerial spray projects.

15.22 - Agricultural Dispersion (AGDISP) Model. The Agricultural Dispersion (AGDISP) model predicts the dispersion and ground deposition of materials released from aerial nozzle systems. Use this model and FSCBG to predict aircraft wake effects and the results of weather, terrain, wingtip vortices, and other aircraft characteristics on spray deposition. The model accounts for crosswind air speeds, droplet evaporation characteristics, and plant canopy penetration effects. Outputs from AGDISP include single swath ground deposition patterns, canopy deposition, and site specific deposition patterns.

15.23 - Computer Assisted Spray Productivity Routine (CASPR) Model. The Computer Assisted Spray Productivity Routine (CASPR) model uses a formula method for estimating the cost of aerial spray operations. In contrast to previous cost-estimating methods, the CASPR formula emphasizes the cost for spraying should be based on field or spray path length rather than on the magnitude of the area to be sprayed. The model takes into account areas of irregular shape and topography.

16 - SAFETY PLANNING. Develop a safety plan to protect the public and employees from unsafe work conditions when pesticides are involved (FSM 2153.3). Design the safety plan to ensure workers:

1. Are fully trained in the hazards of pesticide use and hazard communication requirements;
2. Use protective clothing and equipment prescribed on the pesticide label or required by the Forest Service; and Material Safety Data Sheets (MSDS);
3. Understand the importance of personal hygiene when working with pesticides; and
4. Understand emergency procedures in the event of accidental exposure or spill.

16.1 - General Safety Plan.

1. Prepare safety plans for all pesticide-use projects, except:
  - a. Housekeeping-type uses;
  - b. Minor uses of less than 1 pound active ingredient for any one project (except projects using sodium cyanide, strychnine, or other products of concern, which require safety plans); and
  - c. Field experiments.
2. When a treatment program is comprised of many similar projects such as small noxious weed treatment sites, a generic safety plan can be developed to cover all such projects. At a minimum a safety plan should:
  - a. Prescribe specific communication, transportation and emergency medical actions to be taken in the event of an emergency (for example, an accidental exposure or spill);
  - b. Designate one person to supervise the use, transportation, mixing, storage, and disposal of pesticides and their containers;
  - c. Detail action to be taken during or after the pesticide application if there is evidence of illness or physical reaction to the pesticide;
  - d. Provide the name, address, and telephone number of the nearest Poison Control Center and the physician to be contacted in case of illness;
  - e. Include chemical composition, appropriate precautionary label statements, and registration number of the pesticide to enable prompt and accurate transmission of the information in case of accident or illness;
  - f. List known antidotes to pesticides planned for use;
  - g. Prescribe actions to rescue or eliminate possible hazards to humans, animals, and vegetation from accidental spills;

h. Prescribe disposal procedures; and

i. Prescribe search and rescue operations for aerial pesticide projects.

16.2 - Safety and Health Hazard Analysis. In addition to preparing a general safety plan, complete a Job Hazard Analysis (Form FS-6700-7) to determine hazards on the project and identify ways to eliminate them (FSM 6700, FSH 6709.11).

16.3 - Pesticide Risk Assessment. Another method of helping to ensure safety in pesticide use is to conduct risk assessments. Analyses estimate the possible pesticide doses to workers and the public who may be affected by a pesticide application; and the potential effects on fish, wildlife, and other non-target organisms. These estimated doses are then compared with levels of no observed effects based on tests of laboratory animals.

These analyses are usually incorporated into the decisionmaking documents prepared in compliance with the National Environmental Policy Act (FSM 1950). A pesticide risk assessment does not, in itself, ensure safety in pesticide use. The analysis must be tied to an action plan which provides mitigation measures to avoid potential risks identified by the risk assessment.

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):

## **Excerpt from FACTS Data Recording Protocols for Invasive Species Management**

The prevention, control, and eradication of invasive species (including regulated noxious weeds) have become a critical component of the resource stewardship responsibilities of the USDA Forest Service. As we employ a variety of integrated management techniques against these invaders of terrestrial and aquatic systems, we must accurately collect information on our associated management activities, and monitor the effectiveness of those tactics. This set of protocols provides a standardized approach for all USDA Forest Service employees engaged in the recording of information related to the treatment of invasive species. For the purposes of this set of data management protocols, the term “invasive species” refers to any species of exotic plant, vertebrate, invertebrate or pathogen meeting the Executive Order 13112 definition of “invasive species”, including plant species defined by State or Federal statute as “noxious weeds”.

The user should be aware of the relationship between treatment data and those developed in NRIS Terra for the recording of information related to invasive plant inventory activities. In most cases, invasive plant infestations will be inventoried and then recorded in NRIS Terra prior to treatment. Inventory information recorded in other data management applications for invasive vertebrates, invertebrates, or pathogens will have a different relationship to these treatment data protocols depending on the inventory data applications used.

However, there are situations where invasive plants treatment activities will occur concurrently with the discovery of a new weed infestation. By coupling these treatment data protocols with the standards for invasive plant inventory data collection (found in NRIS Terra), the infestation treated can be automatically cross-referenced and inventoried as additional acres infested that were not inventoried prior to treatment. Similarly, as inventory data collection capabilities/applications are improved for other invasive species, these treatment data protocols will be interfaced with the inventory data for invasive vertebrates, invertebrates, or pathogens.

In many cases successful invasive species control or eradication programs require multiple treatments on the same site, during the same season/year, or on the same species. The resulting data collected on these activities can be confusing without adequate descriptors in place to sort the treatments apart. By objectively delineating these overlapping activities, program managers can more accurately portray the effectiveness of invasive species treatment performance.

By using standardized protocols for recording of critical information related to treating invasive species, the quality and value of the data collected will improve. Generally speaking, increasing the amount of data collected does not necessarily equate to better information unless it is properly utilized. Therefore, these protocols represent a minimum selection of treatment data elements which support the invasive species management activities of the National Forest System and any additional data collected will be determined by the needs of individual districts, Forests, and Regions.

The protocols serve as the Forest Service guide for collecting information on invasive species treatment. The data, once collected and stored in IWEB-FACTS, will serve as the basis for reporting information related to treatment and treatment monitoring of invasive species. This protocol outlines the procedure for recording field data related to invasive species management activities applied to an infested site, such as pesticide applications, mowing, trapping, and biological control tactics, etc. and will serve to document effectiveness monitoring of the treatment.

This protocol is designed to integrate three areas: inventory, treatment and effectiveness monitoring and satisfy all the various requirements for pesticide use and target accomplishment. Some forest and districts have already

developed databases that integrate at least a portion of these requirements. Whenever possible these existing systems were used to form the foundation for this national protocol.

### **Invasive Species Management Performance**

Local-level invasive species treatment activities and efficacy information will be used to report the output and outcome performance measures at the national level. These national invasive species program performance measures are as follows:

#### **Output** ***Number of priority acres treated against invasive species***

The total number of priority acres treated is based on the annual program capabilities. Risk assessments and other scientific methods and systems are used to identify priority acres for treatment in a project plan. Priority acres treated are a subset of the Demand. Program outputs (acres treated) are reported annually.

#### **Outcome** ***Percentage (%) of priority acres successfully restored against targeted invasive species.***

The percentage of priority acres successfully restored is based on the objectives within a project plan – where the targeted species defined in the project plan were prevented, controlled, or eradicated on the priority acres identified in the plan. The program outcome is a long-term (5 -10 yrs) measure of program performance. This long term program performance will be calculated from data collected annually that describes annual treatment efficacy.

### **Invasive Species Management Data Elements**

Since the national application (IWeb-FACTS), where invasive species management data will be stored, is structured to include a broad range of management activities on the National Forests, treatment data will include a set of common fields that all management activities will collect. There are essentially three primary categories of data collected on invasive species treatments:

1. Basis elements of documenting Activity Units and Activity Subunits.
2. Specific treatment data including effectiveness monitoring.
3. Spatial features related to the treatment.

Protocol will be supported electronically through the use of Personal Data Recorders (PDR), and through paper field forms and maps which are then entered into the national database. A complete user guide to FACTS can found at:

[http://fsweb.ftcol.wo.fs.fed.us/frs/facts/releases/facts\\_v2\\_0/docs/Users\\_Guide/index.php](http://fsweb.ftcol.wo.fs.fed.us/frs/facts/releases/facts_v2_0/docs/Users_Guide/index.php)

Reporting form follows:



**The following form has been drafted to improve data consistency for reporting herbicide project accomplishments.**  
**Herbicide Treatment Data Record (2006)**  
 FACTS DATA BASE

*General Activity Fields*

Region	Forest	District	FACTS_ID	Subunit #	Treatment (Subunit) Name	Owner	Watershed (6 <sup>th</sup> HUC)	Mgt Area (CWMA)
						FS		
Method Code	Equipment Code	Fund Code	Cooperating Agencies			Comments		
700								

*Site/Inventory Fields*

Treatment Type	Start Date	Stop Date	Application Site	Examiner / Licensed Applicator				Applicators	
Pesticide									
INFESTATION_ID (TERRA)			Weed Code	Infested Area Treat	Density	Cover Class	Phenology	UTM Easting	UTM Northing

*DailyLog*

Application Date	Time Start	Time Stop	Application Area (Acres)	Temp (F)	Wind Speed (MPH)	Wind Direction	Cloud Cover	RH%	Water Distance
Calibrated Volume		UOM	Volume Applied		UOM	Mix (oz/gal)	Dilutant	Remarks	
		Gal/Acre			Gal		Water		
Herb Product Name		Product Rate	UOM	Surfactant		UOM			
			Oz/Ac			Oz/Ac			
			Oz/Ac						

*DailyLog*

Application Date	Time Start	Time Stop	Application Area (Acres)	Temp (F)	Wind Speed (MPH)	Wind Direction	Cloud Cover	RH%	Water Distance
Calibrated Volume	UOM	Volume Applied	UOM	Mix (oz/gal)	Dilutant	Remarks			
	Gal/Acre		Gal		Water				
Herb Product Name	Product Rate	UOM	Surfactant	UOM					
		Oz/Ac		Oz/Ac					
		Oz/Ac		Oz/Ac					
		Oz/Ac							

*DailyLog*

Application Date	Time Start	Time Stop	Application Area (Acres)	Temp (F)	Wind Speed (MPH)	Wind Direction	Cloud Cover	RH%	Water Distance
Calibrated Volume	UOM	Volume Applied	UOM	Mix (oz/gal)	Dilutant	Remarks			
	Gal/Acre		Gal		Water				
Herb Product Name	Product Rate	UOM	Surfactant	UOM					
		Oz/Ac		Oz/Ac					
		Oz/Ac		Oz/Ac					
		Oz/Ac							