Chapter 1 - Purpose and Need for Action

1.1 Background

The Umatilla National Forest (See Vicinity Map above), located in the Blue Mountains of northeast Oregon and southeast Washington covers 1.4 million acres of diverse landscapes and plant communities. The lands are in Grant, Morrow, Umatilla, Union, Wallowa, and Wheeler Counties of Oregon, and Asotin, Columbia, Garfield, and Walla Walla Counties of Washington. The Forest has some mountainous terrain, but consists mostly of v-shaped valleys separated by narrow ridges or plateaus. The landscape also includes heavily timbered slopes, grassland ridges and benches, and bold basalt outcroppings. Elevation ranges from 1,600 to 8,000 feet above sea level.

Interstate Highway 84 divides the Forest roughly in half. The north half is bordered partially on the west by the Umatilla Indian Reservation and flanked by the Wallowa-Whitman National Forest to the southeast. The south half is bordered on the east by the Wallowa-Whitman National Forest and on the south by the Malheur National Forest. The headwaters of four large drainage basins are on the Forest: The Umatilla, John Day, Walla-Walla and Grande Ronde Rivers.

Umatilla National Forest proposes to contain, control and eradicate Invasive plant infestations across the Forest. Nearly 25,000 acres of invasive plant infestations have been identified and mapped. Invasive plants are defined as “non-native plants whose introduction do or are likely to cause economic or environmental harm or harm to human health” (Executive Order13122). Dale Bosworth (Then Chief of the Forest Service), declared invasive species as one of the four main threats to ecosystem health (USDA 2003). The threat is considered serious because invasive plants have the potential to displace or alter native plant communities, and can increase fire hazards, degrade fish and wildlife habitat, eliminate rare and endangered plants, impair water quality and watershed health, and adversely affect a wide variety of other resource values such as recreational opportunities.

An extensive, thorough inventory of invasive plant infestations was completed by the Umatilla National Forest staff in 2006. The inventory, conducted district by district, compiled all known weed infestations, and includes those documented in the1990 inventory completed for the 1995 EA, the districts’ annual monitoring since then and an inventory completed in 2006 that completed a database of all known infestations (see Table 1 in this section and Figures 3-6 in Chapter 2). At present, 24 different invasive plant species are known to occur within the boundaries of the Forest. Species of greatest concern include spotted and diffuse knapweed, yellow starthistle, hound’s tongue, dalmation and yellow toadflax, scotch thistle, and rush skeletonweed, among others. Our ability to prevent or minimize the adverse impacts to native plant communities by these and other invasive plants is greatest if populations can be treated while they are small and in the early stages of invasion. Many of our current infestations occupy small areas, less than an acre. Treatment options and the likelihood of their success are greater for small or new invasive populations and can be controlled at lower costs than once the infestation becomes large.

Table 1 - Invasive Plants Identified on the Umatilla NF and Number of Sites by District

Scientific Name	Common Name	Districts No. of sites[1]			
		Heppner	Pomeroy	North Fork John Day	Walla Walla
Articum minus	Lesser burdock	7	1	3	6
Cardaria draba	Whitetop		2	6	1
Carduus nutans	Musk thistle			2	3
Centaurea biebersteinii	Spotted knapweed	1	54	63	98
Centaurea diffusa	Diffuse knapweed	442	151	131	463
Centaurea repens	Russian knapweed				1
Centaurea solstitialis	Yellow starthistle		22	2	18
Chondrilla juncea	Rush skeletonweed				3
Cirsium arvense	Canada thistle	15	48	26	240
Cynoglossum officinale	Houndstongue	10	26	110	154
Cytisus scoparius	Scotch broom	3			2
Daucus carota	Wild carrot				1
Euphorbia esula	Leafy spurge			2	53
(Hieracium pratense 0	Yellow hawkweed				4
Hieracium aurantiacum	Tall hawkweed			1	
Hypericum perforatum	St John's wort	242	36	36	247
Lathyrus latifoliis	Everlasting peavine			1	
Linaria dalmatica	Dalmation toadflax	82	29	7	6
Linaria vulgaris	Butter and eggs	4	1	8	1
Onopordum acanthium	Scotch thistle	6	19	8	6
Phalaris arundinacea	Reed canary grass				1
Potentilla recta	Sulphur cinquefoil		2	88	62
Senecio jacobaea	Tansy ragwort	3	7	11	70
Taeniatherum caput-medusae	Medusahead			4	15
Total (individual species occurrences)		**815**	**398**	**509**	**1455**

[1] Since some sites have multiple invasive species, the total number of sites in this table exceeds the actual number of sites inventoried. That is, this table totals 3177 sites because of the multiple species overlap. The actual number of sites inventoried and mapped is 2069.

The Pacific Northwest Region published the programmatic *Pacific Northwest Region Invasive Plant Program Preventing and Managing Invasive Plants FEIS* (Regional Invasive Plant Program EIS), April 2005 along with its *Record of Decision (ROD) for Invasive Plant Program Management* on October 11, 2005 (Regional Invasive Plant Program EIS, ROD). This decision amended all Forest Plans in the Region, adding new direction for the control or elimination of invasive plant species using prevention and restoration practices, various mechanical and hand treatments, and an updated list of herbicides for effectively responding to invasive plant threats. The new herbicides approved or use offer many advantages over the more limited set allowed previously, including greater selectivity, less harm to desired vegetation, reduced application rates, and lower toxicity to animals and people. The ROD and Regional Invasive Plant Program EIS required that prior to the use of these new herbicides, site-specific treatment prescriptions for both new and previously analyzed invasive plant sites on the Forest need to be developed based on the updated herbicide tools and management direction.

This EIS will focus on developing these methods including the use of herbicides aimed at controlling, eradicating, or containing invasive plants, and the effects of such treatments on the forest landscape

The Umatilla National Forest has been treating invasive plants under direction found in the 1995 decision implementing the *Umatilla National Forest Environmental Assessment (EA) for the Management of Noxious Weeds*. The recommended treatment methods took a conservative approach, requiring years of manual or mechanical treatments on a site prior to the use of herbicides. Within that decision three herbicides were approved for use, Glyphosate, Dicamba, and Picloram. It did not provide the ability to respond quickly to new infestations because the process covered only those sites known at the time of the 1995 decision.

Ten years of monitoring shows that the slow approach to the application of herbicides has not successfully reduced the impact and spread of invasive species (1991-2000 annual monitoring reports)(USDA 2001). The strategy is labor intensive sometimes requiring multiple visits to sites each year, and the budget was not always adequate to extensively control or eradicate target infestations. The limited funds were used to control weeds along major National Forest system roads, providing funds to county weed boards for treatment costs. The Regional FEIS also provides evidence that using herbicides only as a tool of last resort is much less effective than allowing them to be used whenever they are effective, needed, and applied according to forest plan standards and label direction (USDA 2005). The dashed line in Figure 2 of Chapter 2 shows the predicted exponential spread of weeds under the existing 1995 decision (No Action Alternative).

The Umatilla National Forest staff acknowledges the need for a new strategy that would 1) treat known infestations safely and effectively, and 2) identify and treat new infestations. This EIS analyzes the effects of a project proposal that would achieve those two purposes.

1.2 Desired Future Conditions

The desired condition is: Maintain or improve the diversity, function, and sustainability of desired native plant communities and other natural resources that can be adversely impacted by invasive plant species. Containment, control, or eradication strategies are applied to invasive plant infestations using rapid, comprehensive, and effective methods for invasive plant management.

The Forest (1) implements treatment actions to contain and reduce the extent of invasive plants at existing inventoried sites, and (2) rapidly responds to new or expanded invasive plant sites as they may occur in the future. By treating infested areas, the spread of invasive plants onto neighboring lands is reduced or eliminated.

1.3 Purpose and Need

Weed infestations are one of the greatest ecological threats to public lands in the United States. Sizeable infestations can displace or alter native plant communities and cause long-lasting economic and ecological problems within and outside the National Forests. Weeds can spread rapidly across the landscape to noninfested areas, unimpeded by ownership or administrative boundaries, because of their strong reproductive and competitive abilities. There is a need to safely and effectively contain, control or eradicate nearly 25,000 acres of Invasive plant infestations that have been inventoried and mapped on the Umatilla National Forest. Further, there is a need to detect new infestations (including new species) soon after they appear on the landscape and treat them quickly while they are still small. This EIS is being prepared to allow the Umatilla National Forest to begin this process using Forest Plan direction as amended by the ROD for the Regional Invasive Plant Program EIS. A large number of new and existing invasive plant populations on the Umatilla National Forest require analysis to implement new, more effective and cost-efficient treatment actions, which includes the use of the updated list of herbicides as analyzed in the Regional Invasive Plant Program EIS.

The weed infestations on the Umatilla National Forest are broadly distributed, often occurring in areas of high spread potential (e.g., along roads and trails). There are probable additional invasive plant sites that have not yet been identified and these, as well as known sites, will continue to expand and spread every year that effective treatment is not applied.

The Purpose of this action is to provide a rapid and more comprehensive up to date approach to the containment, control, and eradication of invasive plants that occur on National Forest system lands. The purpose of controlling or eradicating weed infestations is to maintain or improve the diversity, function, and sustainability of desired native plant communities and other natural resources that can be adversely impacted by invasive plant species. Specifically, there is an underlying need on the Forest to: (1) implement treatment actions to contain, control and eradicate the extent of invasive plants at existing inventoried sites, and (2) rapidly respond to new or expanded invasive plant sites as they may occur in the future. Without action, invasive plant populations will become increasingly difficult and costly to control and will further degrade forest and grassland ecosystems. Untreated infested areas will also contribute to the spread of invasive plants onto neighboring lands.

1.4 Proposed Action

Invasive plants would be contained, controlled, or eradicated using chemical, physical, and biological treatment methods. Proposed treatments would be used on existing and new infestations; including potential new plant species that currently are not inventoried on the Forest. The preferred treatment method would be determined using the Treatment Decision Tree process (Figure 8, Chapter 2), which is based on priority plant species and site location. Treatment methods could be adjusted based on the management objective.

For example: A site determined to use herbicide could use any of the other non-herbicide methods too. The priority species would vary by District and could change at a later time. Species priority is based on the historic investments made to control the species, its invasive nature, its location and whether it is a new species on the Forest. New species of invasive plants or a new invasive plant infestation may demand an immediate response using an Early Detection Rapid Response strategy. Proposed methods and strategies to determine how invasive plant infestations would be treated are detailed in Chapter 2.

Weeds can and do occur almost anywhere on the landscape. Common sites of weed infestations include rangelands, timber harvest areas, along roads and road rights-of-way (including decommissioned roads), along trail routes, at dispersed and developed recreation sites, and on other disturbed sites (i.e. burned over areas, lands flooded, and rock quarries). When needed to facilitate natural plant recovery, weed treatments may include low impact site rehabilitation such as competitive seeding with native grass and forbs species. Since it is hard to determine if any sites would require extensive mechanical scarification at this time; such sites would require their own NEPA analysis and decision documentation for the rehabilitation portion of the project. This EIS is being done to determine the type of treatment a site should receive to control, contain or eradicate the invasive plant and the effects of such treatments.

1.5 Management Direction

This EIS process and documentation has been completed according to direction contained in the National Forest Management Act (NFMA), the National Environmental Policy Act (NEPA), and the Council on Environmental Quality regulations, Clean Water Act, and the Endangered Species Act. The project is consistent with all applicable Federal, State and local laws. This EIS tiers to the Umatilla National Forest Land and Resource Management Plan Final Environmental Impact Statement and Record of Decision (1990) and incorporates by reference the accompanying Land and Resource Management Plan (LRMP, also called the Forest Plan) (1990), as amended by the Pacific Fish Strategy (PACFISH) (1995) where appropriate, and the Regional Invasive Plant Program EIS and ROD (2005).

The Federal Noxious Weed Act of 1974, as amended (7 U.S.C 2801 et seq.) requires cooperation with state, local, and other federal agencies in the application and enforcement of all laws and regulations relating to management and control of noxious weeds (a summary of this act can be viewed at: http://ipl.unm.edu/cwl/fedbook/fedweed.html\ ). This Act directs the Secretary of Agriculture to develop and coordinate a management program for control of undesirable plants which are noxious, harmful, injurious, poisonous, or toxic on Federal lands under the agency's jurisdiction, to establish and adequately fund the program, to complete and implement cooperative agreements and/or memorandums, and to establish Integrated weed management to control or contain species identified and targeted under cooperative agreements and/or memorandums.

U.S. Forest Service Manual 2080 directs the Forest Service to use an integrated weed management approach to control and contain the spread of noxious weeds on National Forest system (NFS) lands and from NFS lands to adjacent lands (USDA Forest Service 1995a). Integrated weed management is an interdisciplinary pest management approach by which one selects and applies a combination of management techniques that, together, control a particular invasive plant species or infestation efficiently and effectively, with minimum adverse impacts to non-target organisms. Integrated weed management is typically species- and site-specific, and includes education, preventive measures, early detection of infestations through inventory and mapping, and combinations of treatment methods as needed to effectively control the target species.

Executive Order 13112 (1999) directs federal agencies to reduce the spread of invasive plants. Invasive species have been identified by the current Chief of the Forest Service as one of the four threats to ecosystem health.

The Forest Service Guide to Noxious Weed Prevention Practices provides management guidance in the form of goals along with prevention practices (USDA Forest Service 2001).

Forest Service policy identifies prevention of the introduction and establishment of noxious weed infestations as an agency objective. This Guide provides a comprehensive directory of weed prevention practices for use in Forest Service planning and wildland resource management activities and operations.

In October 2004, the Chief of the Forest Service released a National Strategy and Implementation Plan for Invasive Plant Species Management – part of the President's Healthy Forest Initiative. The Chief's strategy focuses on four key elements: preventing invasive species before they arrive; finding new infestations before they spread and become established; containing and reducing existing infestations; and rehabilitating and restoring native habitats and ecosystems.

1.5.1 Regional Direction

Forests in Region Six follow management direction introduced to all Land and Resource Management Plans by the Record of Decision (ROD) for Managing Competing and Unwanted Vegetation (1988 ROD), and the subsequent1989 Mediated Agreement. The 1988 ROD specified and limited the tools available for the treatment of competing and unwanted vegetation, but did not provide administrative mechanisms for adapting new technologies. Herbicides approved for use by the Forest Service at that time were developed before 1980.

The recently published *Pacific Northwest Region Invasive Plant Program – Preventing and Managing Invasive Plants Final Environmental Impact Statement* and the accompanying Record of Decision (2005) currently supersedes direction from those documents to provide invasive plant management direction to the Forests in Region Six.

This EIS tiers to the Regional FEIS for direction on invasive plant treatments for the Umatilla National Forest. The 2005 R6 ROD added goals, objectives, and standards for invasive plant management to the Umatilla National Forest's LRMP (See Forest Direction section), and replaces the requirements of the 1989 Mediated Agreement dealing with the treatment of invasive plants. All other vegetation management activities on the Forest will still be bound by the 1989 Mediated Agreement.

1.5.2 Forest Direction

Current management direction for the treatment of invasive plants on the Umatilla National Forest considers the following sources:

- The Umatilla National Forest Land and Resource Management Plan (Forest Plan as amended by the Pacific Northwest Region Invasive Plant Program, Record of Decision 2005)
- Environmental Assessment for the Management of Noxious Weeds (April 1995), as amended

Specific Standards and Guidelines from the Forest Plan that apply to this project can be reviewed in Appendix A.

The best available science is considered in preparation of this EIS. However, what constitutes best available science might vary over time and across scientific disciplines as new science is brought into play. We show consideration of the best available science when we insure the scientific integrity of the discussions and analyses in the project NEPA document. Specifically, this EIS and the

accompanying Project Record identifies methods used, references reliable scientific sources, discusses responsible opposing views, and discloses incomplete or unavailable information, scientific uncertainty, and risk (See 40 CFR, 1502.9 (b), 1502.22, 1502.24).

The Project Record references all scientific information considered: papers, reports, literature reviews, review citations, academic peer reviews, science consistency reviews, and results of ground-based observations to validate best available science. This EIS incorporates by reference (as per 40 CFR 1502.21) the Project Record, including specialist reports and other technical documentation used to support the analysis and conclusions of this EIS. The Project Record is located at the Umatilla National Forest Office in Pendleton, Oregon.

Analysis was completed for botany, wildlife, hydrology and soils, fisheries, recreation, range, cost effectiveness, and human health. Information from these reports has been summarized in Chapters 3. Separate biological evaluations and/or biological assessments were completed for botanical species, aquatic species, and terrestrial wildlife species for this analysis or as part of the consultation process with the National Marine Fisheries Service and the US Fish & Wildlife Service. Specific goals and objectives for invasive plant management added to the Forest Plan by the R6 2005 ROD are listed below. Specific Standards and Guidelines from the R6 2005 ROD that apply to this project can be reviewed in Appendix A.

Goal 1 - Protect ecosystems from the impacts of invasive plants through an integrated approach that emphasizes prevention, early detection, and early treatment. All employees and users of the National Forest recognize that they play an important role in preventing and detecting invasive plants.

Objective 1.1 Implement appropriate invasive plant prevention practices to help reduce the introduction, establishment and spread of invasive plants associated with management actions and land use activities.

Objective 1.2 Educate the workforce and the public to help identify, report, and prevent invasive plants.

Objective 1.3 Detect new infestations of invasive plants promptly by creating and maintaining complete, up-to-date inventories of infested areas, and proactively identifying and inspecting susceptible areas not infested with invasive plants.

Objective 1.4 Use an integrated approach to treating areas infested with invasive plants. Utilize a combination of available tools including manual, cultural, mechanical, herbicides, biological control.

Objective 1.5 Control new invasive plant infestations promptly, suppress or contain expansion of infestations where control is not practical, conduct follow up inspection of treated sites to prevent reestablishment.

Goal 2 - Minimize the creation of conditions that favor invasive plant introduction, establishment and spread during land management actions and land use activities. Continually review and adjust land management practices to help reduce the creation of conditions that favor invasive plant communities.

Objective 2.1 Reduce soil disturbances while achieving project objectives through timber harvest, fuel treatments, and other activities that potentially produce large amounts of bare ground

Objective 2.2 Retain native vegetation consistent with site capability and integrated resource management objectives to suppress invasive plants and prevent their establishment and growth

Objective 2.3 Reduce the introduction, establishment and spread of invasive plants during fire suppression and fire rehabilitation activities by minimizing the conditions that promote invasive plant germination and establishment

Objective 2.4 Incorporate invasive plant prevention as an important consideration in all recreational land use and access decisions. Use Forest-level Access and Travel Management planning to manage both on-highway and off-highway travel and travel routes to reduce the introduction, establishment and spread of invasive plants

Objective 2.5 Place greater emphasis on managing previously "unmanaged recreation" (OHVs, dispersed recreation, etc.) to help reduce creation of soil conditions that favor invasive plants, and reduce transport of invasive plant seeds and propagules.

Goal 3 - Protect the health of people who work, visit, or live in or near National Forests, while effectively treating invasive plants. Identify, avoid, or mitigate potential human health effects from invasive plants and treatments.

Objective 3.1 Avoid or minimize public exposure to herbicides, fertilizer, and smoke

Objective 3.2 Reduce reliance on herbicide use over time in Region Six

Goal 4 – Implement invasive plant treatment strategies that protect sensitive ecosystem components, and maintain biological diversity and function within ecosystems. Reduce loss or degradation of native habitat from invasive plants while minimizing adverse effects from treatment projects.

Objective 4.1 Maintain water quality while implementing invasive plant treatments

Objective 4.2 Protect non-target plants and animals from negative effects of both invasive plants and applied herbicides. Where herbicide treatment of invasive plants is necessary within the riparian zone, select treatment methods and chemicals so that herbicide application is consistent with riparian management direction contained in PACFISH, INFISH, and the Aquatic Conservation Strategies of the Northwest Forest Plan

Objective 4.3 Protect threatened, endangered, and sensitive species habitat threatened by invasive plants. Design treatment projects to protect threatened, endangered, and sensitive species and maintain species viability.

1.6 Decision Framework

The Forest Supervisor will make the following decisions based on the interdisciplinary analysis:

- Whether to select the proposed invasive plant treatments with any modifications from public scoping or comments or as described in an alternative
- What Project Design Features (PDFs) are needed
- What monitoring is required

1.7 Tribal Involvement

1.7.1 Introduction

The proposed Invasive plant treatments occur within areas ceded to the United States government by the following recognized tribes: the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) by the TREATY WITH THE WALLA WALLA, CAYUSE, ETC.,1855; the Nez Perce Tribe by the TREATY WITH THE NEZ PERCE, 1855; and the Confederated Tribes of the Warm Springs Reservation in the TREATY WITH THE TRIBES OF MIDDLE OREGON, 1855. The Forest Service, through the Secretary of Agriculture, is vested with statutory authority and responsibility for managing resources of the National Forests. No sharing of administrative or management decision-making power is held with any other entity. However, commensurate with authority and responsibility to manage is the obligation to consult, cooperate, and coordinate with recognized Indian Tribes in developing and planning management decisions regarding resources on National Forest system (NFS) lands that may affect tribal rights established by treaty or Executive Order.

As a result of the treaties and Executive Orders, elements of Indian culture, such as tribal welfare, land, and resources were entrusted to the United States government. The Forest Service shares in the Federal government's overall trust responsibility where treaty, laws, Executive Orders, case law or other legally defined rights apply to National Forest system (NFS) lands. Trust responsibilities resulting from the Treaties or Executive Order dictate, in part, that the United States government facilitates the execution of treaty rights and traditional cultural practices of recognized tribes. The Forest Service assists with this shared responsibility by working with the tribes on a government-to-government basis and in a manner that attempts a reasonable accommodation of their needs, without compromising the legal positions of the Tribe or the Federal government.

Tribes have expressed rights reserved in the treaties. The treaties state "That the exclusive right of taking fish in the streams running through and bordering said reservation is hereby secured to said Indians; and at all other usual and accustomed stations, in common with citizens of the United States, and of erecting suitable houses for curing the same; also the privilege of hunting, gathering roots and berries, and pasturing their stock on unclaimed lands, in common with citizens, is secured to them." (TREATY WITH THE TRIBES OF MIDDLE OREGON and TREATY WITH THE WALLAWALLA, CAYUSE, ETC. The TREATY WITH THE NEZ PERCE has similar language.) It is the responsibility of the Forest Service to take into account cultural resources when managing the Forest's natural resources and to address tribal interests when managing and restoring habitat to support healthy, sustainable, and harvestable populations of culturally significant vegetative floral and faunal species.

Utilization of NFS lands for all Federally recognized Tribes is protected by American Indian Religious Freedom Act, Executive Order 13007 – Sacred Sites, Executive Orders 13084 & 13175 – Consultation and Coordination with Indian Tribal Governments, and Executive Order 12898 – Environmental Justice and the National Historic Preservation Act which includes protections for properties of traditional religious and cultural importance.

1.7.2 Tribal Issues Identified

Letters were sent to Tribal leaders of the Nez Perce, Confederate Tribes of the Umatilla Indian Reservation (CTUIR), and Confederate Tribes of the Warm Springs Reservation in April of 2006. None of tribes responded to the letter. The Forest had meetings with various tribal resource staff. During these meetings the tribes were supportive of the Forest's efforts to treat invasive plants and being able to use all the tools/methods described in the proposed action. The experience of the CTUIR using aerial treatments for yellowstar thistle is decribed as successful when intergrated with

other land owners. The Nez Perce felt that biological treatments should be an intergrated approach used on the landscape. All tribes have a concern about coordinating herbicide treatments with traditional gathering activities and areas. A process will be developed for notifying each tribe when herbicides are being used as required by the Project Design Features in Table 6 of Chapter 2.

The Forest has incorporated concerns voiced by the tribes in the past into this project. These concerns include:

- The Forest Service has Federal Trust Responsibility to take into account the Tribes' treaty rights when decisions are made such that cultural practices can be exercised and that treaty related resources are protected. Actions should not hinder the ability of the tribes to access traditional use areas. There is concern that traditional uses would not be able to continue or the use of herbicides would contaminate traditional gathering areas. Conflicts with the timing of herbicide use and gathering activities would be avoided by having a method for the Forest to contact the tribes prior to using herbicides each year. The proposed invasive plant treatments do not close roads or change existing access to National Forest system lands.
- There is also concern about the use of herbicides in riparian areas and its potential impact to water quality that may interfere with recovery efforts for anadromous fish, a traditional economic resource. The CTUIR have spent years reestablishing salmon in the Umatilla River and Meacham Creek systems and have made efforts in the Walla Walla River and Lookingglass Creek in the Grande Ronde basin. They feel that protection of pristine riparian and upland habitat is important to the recovery of fish populations. There is support the Northwest Power Planning Council's approach to Subbasin planning that focuses on connecting areas of high quality habitat and working toward population goals through both natural and hatchery production. This concern has been incorporated into Project Design Features in Chapter 2 and effects disclosed in Chapter 3.
- The CTUIR expresses its concern for managing resources through the cultural aspects of First Foods and their importance on the land that sustains their culture. First Foods – water, salmon, deer, cous, and huckleberry - represent groupings of similar species that are served in their Longhouse and represent a healthy environment that is important to their cultural traditions.
- The Nez Perce has focused management actions in the uplands for provide quality habiat for game and cultural plant species. Biological control methods are important to them and they have developed insect control methods.

Tribal concerns have been incorporated into all alternatives through the use of Project Design Features (See Table 6 in Chapter 2). Concerns voiced about potential impacts to plants, animals, and fish are similar to those heard from the public during scoping. The analysis incorporated uncertainty of potential effects by placing restrictions on herbicide use such that effects become immeasurable and much less than disclosed in research.

Project Decision Features requires the Forest Service to notify the Tribes of areas proposed for treatments each year. The Public Notification Plan requires areas proposed for treatment to be mapped, information shared and posted, and warning signs posted at the locations treated with herbicides. Water quality and fisheries habitat is also protected through the use of Project Design Features that restrict herbicide use in riparian and near stream areas. The proposed invasive plant treatments do not close roads or change existing access to National Forest system lands. Herbicide treatments may cause plants to not be available for a season, depending on when the treatment occurs.

Because of the Project Design Features, all alternatives are responsive to Tribal cultural needs. The differences between alternatives are the amount and methods of broadcast herbicide treatments.

1.8 Public Involvement

1.8.1 Scoping

Scoping began officially on April 6, 2006 when the Notice of Intent (NOI) to Prepare an Environmental Impact Statement was published in the Federal Register Volume 71, No. 66/April 6, 2006 on pages 17435-17437. The scoping proposal was also posted on the Forest website at the following address: http://www.fs.fed.us/r6/uma/projects/readroom/invasive-plants/. A scoping letter, dated April 3, 2006, was mailed to 128 individuals and organizations. The letter was signed by Forest Supervisor, Kevin D. Martin.

1.9 Issues and Concerns

Public Issues Identified

During scoping two email comments and five comment letters were received. All comments were considered, and public issues were identified based on these scoping comments.

Specific issues or concerns presented by commenter that would not be addressed by the Proposed Action, became "significant issues". The significant issues are the basis of two alternatives to the Proposed Action that are discussed in Chapter 2 of this EIS as well as six alternatives considered but not developed in detail. The resulting range of alternatives, including the No-Action Alternative, provides a broad basis for alternative comparison.

Some issues were addressed by the analysis of the Proposed Action, and are referred to as "other concerns." Other concerns are those that were addressed through adherence to standards and guidelines and the appropriate laws and regulations, consistency with decisions made in the Invasive Plant ROD (2005), or development of Project Design Features (See Table 6 in Chapter 2). Other concerns are generally of high interest to the public, and are tracked throughout the document.

Significant Issues and Other Concerns

The following section summarizes the significant issues and other concerns within the following broad resource categories.

- Human health
- Treatment effectiveness
- Social and economic
- Non-target terrestrial plant and animal species
- Soils, water quality and aquatic organisms

1.9.1 Human Health

Significant Issue: There is concern by members of the public that exposure to herbicides may have serious human health consequences. Of particular concern is toxic chemical exposure and chemical contamination of water and aquatic ecosystems. It is perceived that those at greatest risk are:

- Workers applying herbicides
- All publics recreating in areas treated with herbicides
- Those who use forest plants and materials that may have come in contact with chemicals

Response: *The alternatives cannot directly relieve the inherent anxiety about chemical herbicide use; however all alternatives share precautions designed to protect the public. By strict adherence to chemical labels, following all safety precautions for the handling and application of chemicals, and*

applying Forest Plan treatment restoration standards 15-23 (from the Regional ROD) little exposure and maximum public protection is expected. Additional Project Design Features (PDFs detailed in section 2.3.3) further reduce risk. Any herbicide exposure to workers or public from proposed treatments treating invasives at typical application rates would be below any levels considered to pose a serious human health consequence. All publics recreating or using forest plants and materials would not be exposed to any herbicide levels considered to be a serious human health consequence when applied at the typical application rate, and PDF's would limit exposure if maximum rates were applied. Public water systems and aquatic ecosystems would be protected by applying PDFs and standards and guides outlined in the regional ROD.

- Unit of Measurement –
  - The comparitive subjective sense of how well alternatives would prevent exposure and the perceived hazard of herbicide exposure (See the four points below).

1. Hazard Characterization	What are the dangers inherent with the chemical?
2. Exposure Assessment	Who gets what and how much?
3. Dose Response Assessment	How much is too much?
4. Risk Characterization	Indicates whether or not there is a plausible basis for concern

Refer to Chapter 3.7 for more information about the effects of herbicide use on workers and the public.

1.9.2 Treatment Effectiveness

Significant Issue: There is a concern that the spread of invasive species will increase if all available treatment methods are not utilized. (All herbicides, including new ones; aerial spraying, livestock grazing, ODA approved bio-control agents, etc.) *Response: Alternatives B, C and D utilize a broad compliment of invasive treatment methods to control the spread and reduce the influence of invasive species.*

- Unit of Measurement:
  - Estimated rate of invasive species spread and how effective alternatives are at retarding or reversing that spread rate.
  - Acres treated by method to contain, control and eradicate invasive species

Significant Issue: There is a concern that herbicides should be used only as a last resort when other methods fail. (Modified No Action Alternative covering all sites) *Response: The current program (alternative A) addresses this concern by using herbicides only as a last resort. The effectiveness of this program will be analyzed and compared to the three action alternatives.*

- Unit of Measurement:
  - Acres of non-herbicide treatment to determine the effectiveness on containing, controlling or eradicating invasives.
  - Estimated rate of invasive species spread based on comparison of treatment strategies of the alternatives.

Significant Issue: There is a concern that not using herbicides will result in the continued spread of invasive plants, resulting in the loss of ecosystem function and wildlife habitat loss. *Response: To meet the desired condition, all alternatives use herbicides to one degree or another. Relative effectiveness of each alternative will be compared and contrasted in this EIS analysis.*

- Unit of Measure:
  - Estimated rate of invasive species spread measured as rate of spread

Other Concern: There is a concern that emphasis on herbicide treatments would minimize application of prevention and restorative methods. *Response: Prevention techniques, as directed by the Forest Plan, would be applied to all Forest Actions. Effectiveness of prevention measures for all projects undertaken on the Forest would be determined during the individual project NEPA analyses. This project, however, emphasizes direct reduction of invasive plants using a full compliment of tools to treat existing and future infestations and thereby increase the effectiveness of prevention measures*

Other Concern: There is a concern that once weeds are treated without proper restoration more invasive plants will move in. There is a desire that restoration planning be done as part of this EIS effort and that restoration techniques be aggressively applied. *Response: The effects analysis will evaluate and identify restoration strategies as project design features. Minor ground disturbing restoration is included as a part of the treatment prescriptions. Major ground disturbing restoration actions will require additional NEPA and decision document.*

Other Concern: There is a concern that new invasive weed infestations may not be detected or treated in a timely manner. *Response: Early detection and rapid response (EDRR) is part of the Proposed Action. The effects, effectiveness and circumstances under which EDRR would be applied will be analyzed for all alternatives except the No-Action Alternative.*

The No-Action Alternative does not allow for chemical treatment of infestations not previously identified in the 1995 weed program EAs.

Other Concern: There is a concern that lack of coordination with other land owners/managers will not lead to effective control of invasive weeds. *Response: Project Design Features and analysis will address coordination with other federal, state, local and private landowners and managers. Cooperation of non Forest Service partners is desirable but cannot be guaranteed.*

1.9.3 Social and Economic

Other Concern: There are concerns that the surrounding community should be informed of activities and economic costs of the project. *Response: All action alternatives incorporate Treatment Restoration Standard 23 (Umatilla Forest Plan as amended) from the Region-6 ROD (USDA 2005), that requires timely public notification of treatment activities. Costs for each alternative will be evaluated and compared in the EIS.*

1.9.4 Non-target Species

Significant Issue: There is a concern that herbicide exposure, particularly when applied through aerial or broadcast spraying, may harm terrestrial wildlife species. Herbicide drift, primarily from broadcast applications of herbicides could cause harm to non-target animals. *Response: This issue is specifically addressed in the R6 2005 ROD through adherence to invasive plant treatment standard 19. Additional Project Design Features listed in chapter 2 of this EIS would be implemented for Alternatives B, C and D to avoid such impacts. Alternatives C and D limit broadcast applications of herbicides further reducing the potential for harm to non-target species.*

Significant Issue: There is a concern that herbicide exposure, particularly when applied through aerial or broadcast spraying, may harm non-target plants. *Response: same as above.*

- Unit of Measure for both issues above:
  - Acres of broadcast and aerial spraying
  - Herbicides with high risk of harm to non-target plants.

Other Concern: There are concerns that effects of herbicide applications on non-target plant and animal species, and native ecosystems be properly analyzed. *Response: Analysis of all alternatives will evaluate the direct, indirect and cumulative effects of herbicides to all non-target species by appropriate use of local analysis, tiering to the Regional FEIS and in compliance with NEPA, Endangered Species Act and/or PACFISH management requirements.*

1.9.5 Soil, Water Quality, Aquatic Biota

Significant Issue: There is a concern that there may be potential adverse effects of herbicide treatment on soils. *Response: Project Design Features have been developed to reduce potential effects from specific herbicides that can combine with soil or leach into ground water.*

- Unit of Measure:
  - Acres of treatment by method (herbicide, mechanical, manual, etc.)

Significant Issue: There is a concern that there may be potential adverse effects of herbicide treatment on riparian areas adversely impacting water quality and aquatic ecosystems. Specifically some believe herbicide application in riparian areas could contaminate water and cause mortality to fish, organisms that support fish and other aquatic species. Fish and other aquatic organisms may also be impacted by manual and mechanical treatments, which may change dissolved oxygen levels, nutrients, water temperature, turbidity, fine sediment, and riparian structure. *Response: Chapter 2 describes the Project Design Featuresand the buffers intended to avoid herbicide delivery to water and eliminate risk of concentrations of concern to water quality and fish, domestic water sources and other aquatic organisms. Alternatives C and D, described in Chapter 2, give additional protection for concerns about water, fish, and aquatic ecosystem exposure to toxic chemicals. Chapter 3 explains why the potential for adverse effects are relatively low in all alternatives. Listed fish are protected under the standards developed by PACFISH. This project will be consistent with applicable PACFISH standards and guidlines and not retard or prevent attainment of riparian management objectives.*

Unit of Measure:

- Acres of broadcast herbicide application within riparian areas
- Acres of treatment within riparian by method (herbicide, mechanical, manual, etc.)
- Estimated miles of roads in riparian and also in proposed treatment sites

Other Concern: There is a concern that the direct, indirect and cumulative effects on soil, soil organisms and soil productivity of proposed herbicide use be analyzed thoroughly. *Response: The appropriate analysis will be done including tiering to existing analyses.*

Other Concern: There are concerns that the direct, indirect and cumulative effects on water quality be thoroughly analyzed. The appropriate analysis will be done including tiering to existing analyses.

1.9.6 Non-Significant Issues

The Council of Environmental Quality requires the USDA Forest Service to identify and eliminate from detailed study the issues that are not significant (40 CFR 1501.7). Issues may be eliminated from further analysis when the issue is:

- Outside the scope of the EIS
- Already decided by law, regulation, Forest Plan, or other higher level decision
- Not clearly relevant to the decision to be made
- Conjectural and not supported by good scientific or factual evidence

The following issues fit in one or more of the non-significant categories. Issues are identified and an explanation of why they are not significant is given.

Some comments suggested adding aspects of the project covered by other programs. Such suggestions are outside the scope of this project. An example is:

- Roads are a major weed vector. The analysis must consider closing or revegetating unneeded roads. No new road should be constructed if you are serious about controlling weeds. Decisions to build, open, or close roads are made in the transportation management program and individual projects that require access.

Some comments made speculative or unsupportable claims. Because such comments are not supported in peer-reviewed literature, they are considered non-significant issues. Examples include:

- herbicide spraying causes all kinds of cancer
- herbicide spraying destroys essential ecosystem functions

Some comments made requests that were outside the scope of the proposed project. While some such requests might be a good idea, they do not fit within this project's purpose and need nor are they related or connected to the decision to be made. Examples include:

- Stop all logging. Stop all grazing, which is harmful and brings in invasive weeds, as does logging.
- Have an independent contractor study the effectiveness of past Forest Service chemical and non-chemical control types in each district, including adequacy of timing and repetition of control types and publicly disclose the results.
- Do a feasibility study of the effectiveness needs for further research and logistical parameters for non-chemical alternative control methods for each invasive plant at issue, and make this available to all district offices.

Some comments raised issues about complying with laws. These were mostly reminders to complete tasks that are already part of the process of completing an EIS. Examples include:

- The National Forest Management Act requires the Forest Service to "provide for diversity of plant and animal communities." 16 U.S.C. § 1604(g)(3)(B
- Note that pursuant to Section 7 of the ESA, the Forest Service has an independent duty to conserve and protect the threatened and endangered species that depend on the public lands it is charged with managing and ensure it does not jeopardize species or adversely modify critical habitat.
- This project must comply with the Clean Water Act, which may require a NPDES permit for the herbicide application.

1.10 What This Proposal Does Not Include

This action does not include experimental trials of herbicides conducted by the U.S. Environmental Protection Agency (EPA) to test new products.

This document will not provide additional prevention measures than what is already included in Appendix E of the Regional Invasive Plant Program EIS and ROD. Only minor site restoration actions are covered in this EIS. Restoration that involves extensive mechanical scarification would require its own analysis and decision documentation for the rehabilitation portion of the project.

This action does not include activities that could influence invasive plant populations but are covered under other programs. Such programs include transportation planning, timber management, livestock grazing, etc. Weed prevention and treatment activities are incorporated into individual projects carried out under regulation and guidance of these programs.

This Page Left Blank Intentionally