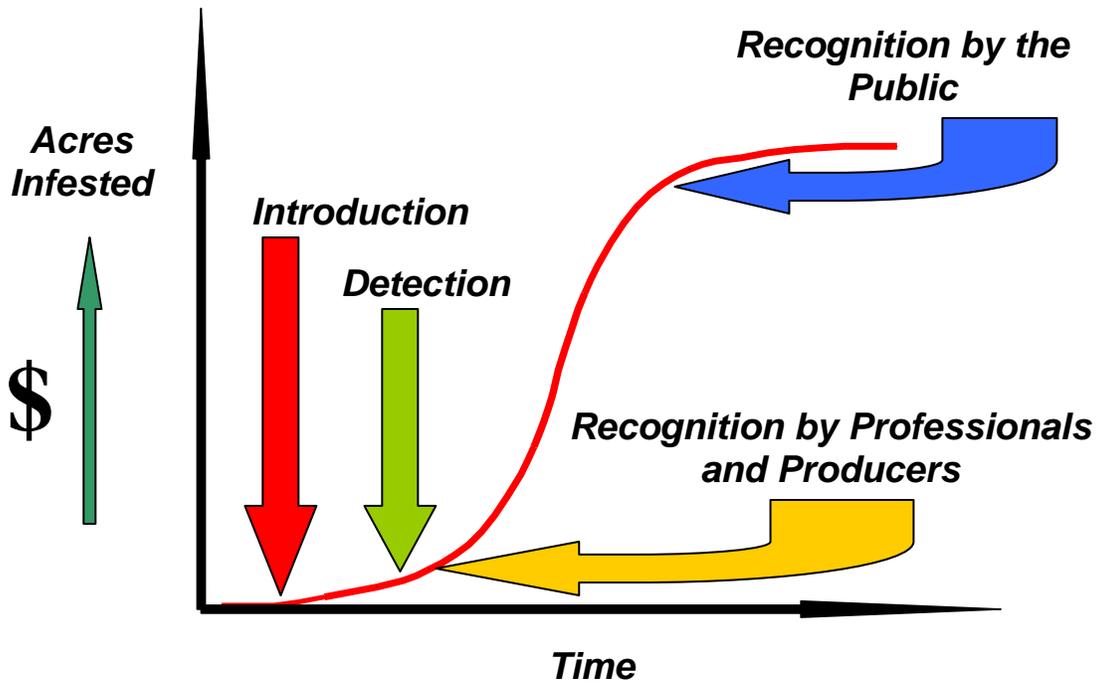


WALLOWA COUNTY INTEGRATED WEED MANAGEMENT PLAN

Collaboration for protecting our natural resources

The Weed Curve



Adopted by Wallowa County Commissioners: June 5, 2006

Table of Contents

Participants	4
Purpose	4
Executive Summary	5
<i>Map 1. Wallowa County Weed Control District</i>	7
Introduction	8
I. General Information	10
Wallowa County Bio-physical Description	10
Wallowa County Demographic and Economic History	11
II. Wallowa County Weed Control District	13
<i>Figure 1. Wallowa County Weed Control District Organizational Chart</i>	13
Wallowa County Commissioners	14
The Weed Board	14
The Wallowa County Road Department	15
Vegetation Department Manager	15
Wallowa County Weed Policy (2006)	16
Noxious Weed Rating System	16
Legal Standing of the Weed District	17
Oregon State Weed Control Laws	17
Noxious Weed Enforcement Policy and Procedures	18
Weed District Funding	19
Weed District Local and Regional Partners	19
Weed District Planning	19
III. Weed Control Methods	23
Prevention and Education	23
Biological Weed Management	23
Chemical Control	24
Cultural Control	24
Mechanical Control	24
Revegetation	24
IV. Strategic Plan	25
<i>Figure 2. The Weed Curve</i>	25
Noxious Weed Prioritization Rating System	25
<i>Table 1. "A" Listed weeds by species, management zone, and priority status</i>	27
<i>Table 2. "B" Listed weeds by species, management zone, and priority status</i>	28
<i>Table 3. "Watch" Listed weeds by species, management zone, and priority status</i>	29
Wallowa County Weed District Weed Management Plan	30
Blood Drop	30
Mediterranean Sage and Orange Hawkweed	30
Rush Skeletonweed	30
Russian and Meadow Knapweed, Perennial Pepperweed, False Hoary Alyssum, Purple Loosestrife, and Tansy Ragwort	30
Spotted Knapweed, Leafy Spurge, Meadow Hawkweed, Whitetop and Dalmatian Toadflax	30

Map 2. Weed Containment Areas in Wallowa County (current 5/2006).....	31
Map 2a. Spotted Knapweed Containment Areas in Wallowa County (current 5/2006).....	32
Map 2b. Leafy Spurge Containment Areas in Wallowa County (current 5/2006).....	33
Map 2c. Meadow Hawkweed Containment Areas in Wallowa County (current 5/2006).....	34
Map 2d. Whitetop Containment Areas in Wallowa County (current 5/2006).....	35
Map 2e. Dalmatian Toadflax Containment Area in Wallowa County (current 5/2006).....	36
<i>Common Crupina and Musk Thistle</i>	36
<i>Common Bugloss, Yellow Starthistle, Sulfur Cinquefoil, Poison Hemlock and</i>	
<i>Medusahead Rye</i>	36
Map 2f. Common Bugloss Containment Area in Wallowa County (current 5/2006).....	37
<i>Scotch Thistle and Diffuse Knapweed</i>	37
<i>Yellow Toadflax, Japanese Knotweed and Jointed Goatgrass</i>	38
<i>B Rated Weeds</i>	38
<i>Watch List</i>	38
V. Literature Cited	39
VI. Appendices	41
Appendix A. Wallowa County Weed Board (2005)	42
Appendix B. Other Noxious Weed Contacts	44
Appendix C. Wallowa County Road Department Management	45
Appendix D. Oregon State Weed Control Laws	46
Appendix E. Potential Funding Sources	51
Appendix F. Competitive Characteristics of Weeds	52
Appendix G. An Eradication Plan for Plant Invasion	53
Appendix H. Wallowa County Weed Free Forage Inspection Program	57
Appendix I. Wallowa Whitman National Forest Integrated Weed Management	
Plan	64
Appendix J. Wallowa Canyonlands Partnership CWMA	65
Appendix K. Wallowa County Weed Board 2006 Action Plan	66
Appendix L. Wallowa County Vegetation Department 2006 Action Plan ...	67
Appendix M. USFS Wallowa Mountains Office Noxious Weed Management	
Program 2006 Annual Plan	68
Appendix N. Wallowa Resources Lower Grande Ronde Noxious Weed	
Program 2006 Annual Plan	69

Participants

Thank you to the many people who have dedicated many years to keeping Wallowa County as weed free as it is. Without their work, and the learning that they generated, this plan would not be possible. The following agencies, organizations and individuals were active participants in developing this plan:

Wallowa County Weed Control District-Wallowa County Weed Board

Wallowa County Department of Public Works-Vegetation Department

Bunchgrass Consulting (Contractor)

U.S. Forest Service, Wallowa Zone

The Nature Conservancy

Wallowa Resources

Wallowa County Natural Resources Advisory Committee

Wallowa County Commissioners

Purpose

The Wallowa County Integrated Weed Management Plan (IWMP) provides a written strategy to inform and guide weed management activities over time for the Wallowa County Weed Control District. This plan provides a framework for coordinating countywide noxious weed management within a regional context for the next ten years. Land managers with federal and state agencies, county and tribal governments, private landowners, and community groups may use it as a guide for prioritization of projects through risk assessments of real or potential threats by a specific weed, or to a specific site. This document is not intended to be static, but rather to be added to and modified as needed to fit new priorities and new weeds. This dynamic process is built into the system by allowing for five year goal setting and the annual additions of work plans. Prioritization of work will be based on annual weed district prioritizations, five-year objectives, and the ten-year goals established in the following pages.

The integrated approach to weed management laid out in this document will aid in the prudent use of economic resources and increase ecological benefit to the land. The IWMP will serve as an educational tool for those wishing to understand local weed control efforts and will provide accountability of those working at weed control in the district to citizens and elected officials. This plan will also heighten awareness among citizens, governments, and community groups as to the impacts and management of invasive weeds, the importance of current work. The IWMP will provide a foundation from which to build and maintain strong, effective weed control programs into the future.

Executive Summary

Wallowa County is a rich and diverse landscape with an increasingly diverse human population. Effectively managing threats from invasive weeds requires coordinated strategies on a local and regional scale. Wallowa County has been facing this challenge since 1921 when it formed the Wallowa County Weed Control District. Managing new plant invasions amidst changing social trends provides opportunities for collaboration among diverse groups of people and forging of new partnerships in the effort to control noxious weeds. This integrated weed management plan operates within the context of the Wallowa County Nez Perce Salmon Habitat Recovery Plan, Oregon State Law and Oregon's Comprehensive Guide for the Protection of Oregon's resources (2001).

The Wallowa County Weed Board actively provides professional and technical recommendations to the Wallowa County Board of Commissioners, and works cooperatively with the Vegetation Manager and the Public Works Director. The Vegetation Department is the primary entity responsible for implementing Integrated Weed Management in the weed district, in accordance with county weed policies, and enforcement of noxious weed laws. Other partners include local federal and state land management agencies, local service districts, tribal governments, non-profit organizations, Cooperative Weed Management Areas (CWMAs), and interested citizens.

The Wallowa County Weed Board represents a cross section of local citizens and is active in noxious weed management. Their mission is to:

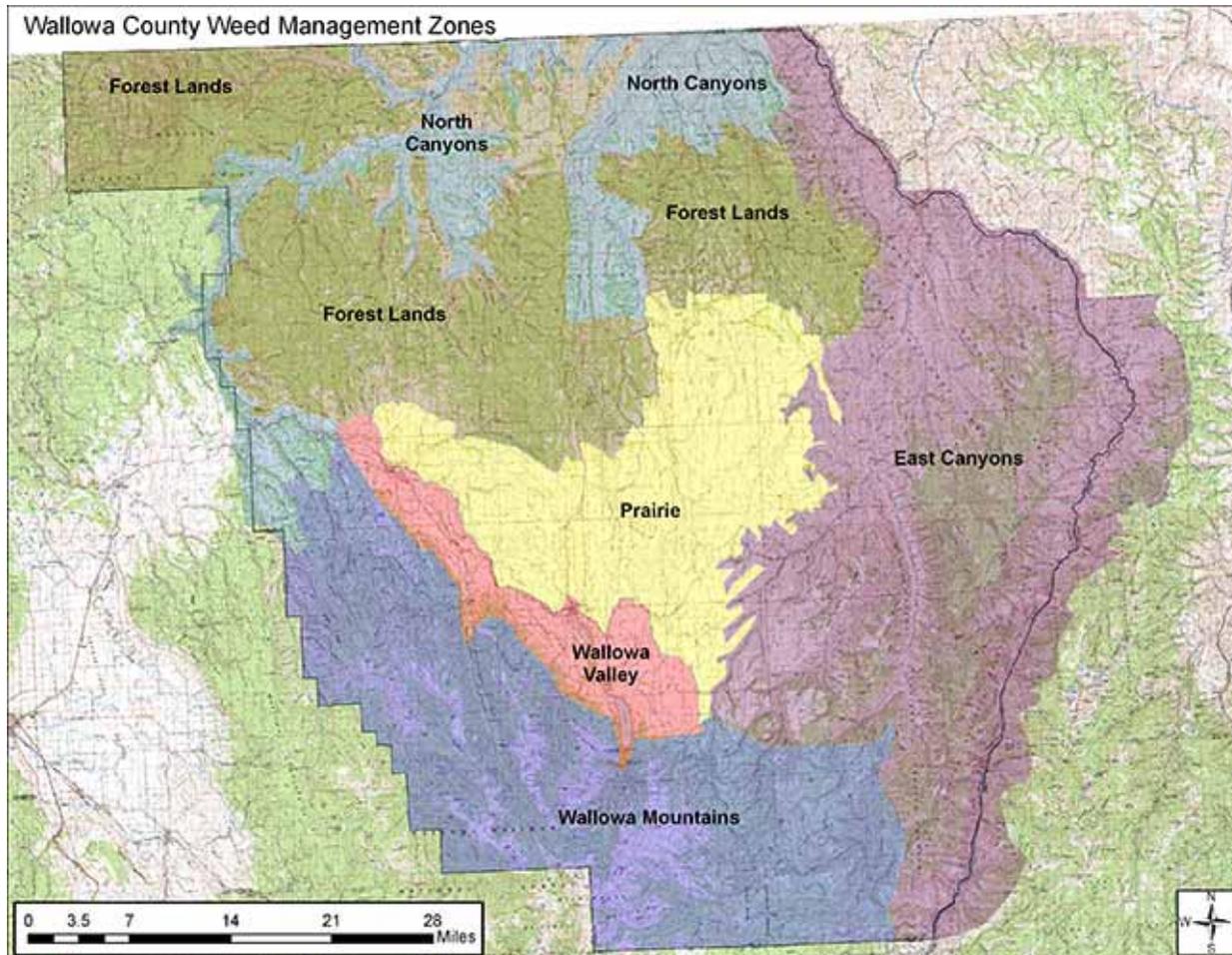
- *Work cooperatively to promote and guide implementation of noxious weed control in the Wallowa County Weed District and in doing so help,*
 - *prevent the import of new invasive plants,*
 - *eradicate small infestations of noxious weeds where possible*
 - *and contain and manage existing weed populations*
- *Raise the value of the land economically and biologically;*
- *Improve the health of the community, promote stewardship, maintain and enhance natural resources;*
- *Provide leadership and example for other counties and states in effective vegetation management*

The Wallowa County Integrated Weed Management Plan is a fruition of decades of effort and commitment to finding solutions to weed management challenges. The plan uses a prioritizes noxious weed species for treatment using a risk assessment based on the competitive nature of specific weeds, and their occurrence in Management Zones delineated by bio-physical and topographical attributes. The Management Zones include the Wallowa Mountains, North Canyons, East Canyons (defined by the Grande Ronde River and the Imnaha/Snake Rivers respectively), Wallowa Valley, and Forest Lands that are distributed amongst the other zones (see Map 1). This prioritization process provides a baseline for decision making by land managers in the Weed Control District. Appendices to the Plan provide detailed information regarding current Weed Board Members, potential funding sources, Oregon State Weed Laws, and current management plans.

Noxious weeds currently rated as the top priority today include common bugloss, leafy spurge, meadow hawkweed, knapweeds, dalmatian toadflax, sulfur cinquefoil, rush skeletonweed, and yellow starthistle. Common bugloss and whitetop have established a competitive presence in the Innaha River watershed, and rush skeletonweed is being detected in increasing numbers in the North and East Canyons. Yellow starthistle continues to spread across canyon lands, and a dalmatian toadflax invasion is being battled in the north canyons and ridge tops. Knapweeds, especially spotted, are increasing over thousands of acres, and leafy spurge is spreading along the Wallowa and Grande Ronde Rivers, and adjacent agricultural lands.

Since the formation of the weed control district, local government has adopted several weed control ordinances including hay quarantine, a weed-free forage inspection program, and an enforcement policy. In 2002, a five-year serial tax for the control of noxious weeds was approved by local voters (\$0.19/\$1,000 of assessed property value) generating approximately \$85,000.00 annually for five years.

The Appendices provide information about annual action plans for the primary partners in the weed district, and supplementary information to help partners in the prioritization and implementation of weed control projects.



Map 1. *Wallowa County Weed Control District. Weed district boundary is the county line. Colored areas represent management zones.*

Introduction

Invasion of western landscapes by exotic invasive plant species is one of the most significant ecological threats facing North America ^(1, 2)*. Weed invasions in natural ecosystems threaten ecological integrity by reducing biodiversity, altering native plant communities, increasing soil erosion, degrading wildlife habitat, and reducing carrying capacity for domestic and wild ungulates ^(3 – 9). These detrimental impacts degrade economic and social values of agricultural lands, rangeland, forestlands, and wetlands. Additional descriptors of a weed for management purposes may include exotic, non-native, and invasive, but from a legal standpoint, “noxious weed” means any weed designated by the Wallowa County Board of Commissioners that is injurious to public health, agriculture, range, recreation, wildlife, or any public or private property; any weed that impacts and displaces desirable vegetation, such as Threatened and Endangered Plant Species, wildlife habitat, and livestock forage.

The number of noxious weed species in Wallowa County is growing, as is the number of acres that have some level of weed infestation. Care must be taken to minimize disturbance of already infested areas. Vectors of spread increase as human activity and development increases. Weeds are spread by vehicles, humans, domestic animals, wildlife, wind and water. They prefer disturbed sites such as roadways, construction sites, overgrazed areas, trailheads, and areas affected by fire. However, they can also invade relatively undisturbed communities.

Recreational activities, including the use of off-road vehicles, can increase weed seed dispersal if user groups are not effectively educated in weed control strategies. Some agricultural practices and livestock grazing must also be refined to reverse negative impacts that encourage weed invasion.

Invasive weeds are considered one of the most serious natural resource and economic issues facing Wallowa County. The Wallowa County Weed Board developed a prioritization process to determine the invasive potential of listed weeds. Noxious weeds are classified as either “A”, “B”, or placed on the “Watch List”, with an “A” listed weed receiving priority for control efforts. The weed list is reviewed and updated annually. Without an increase in coordinated and integrated treatment noxious weeds will continue to spread across the region and degrade productive lands that are Wallowa County’s heritage.

Noxious weeds impact transportation and recreation, and affect human and animal health and cause widespread economic impact. Annual economic losses from 21 of the 99 noxious weeds listed by Oregon, estimated in 2000, were \$83 million or about 3,329 jobs per year. In addition, Oregon forgoes an additional \$52 million annually in lost opportunity to the impacts of the same 21 weeds ⁽¹⁰⁾.

The spread of noxious weeds signals the decline of entire plant communities: they severely impact the beauty and plant diversity of environments. Noxious weeds compete with native vegetation for resources, and replace native plant communities in many areas ^(11, 12). Many noxious rangeland weeds continue to spread at an estimated rate of 8 to 14% per year ⁽¹³⁾, and in localized areas may increase in acreage by 60% per year ⁽¹⁴⁾. Historic control efforts have been partially successful and have contained the spread of only a few noxious weeds ^(15, 16). New focus on inter jurisdictional coordination, new herbicide technologies, and the expanded use of biological controls gives current weed management efforts a much better chance of success. Integrated Weed Management (IWM) is a comprehensive strategy for managing noxious weed invasion. This approach combines chemical, mechanical, cultural, and biological control methods in a strategic fashion to minimize inputs and maximize weed control ⁽¹⁷⁾. Prevention is a critical

* Refers to literature citation list on page 39.

element of IWM and requires minimizing creation of conditions that favor invasive plant introduction and establishment. Prevention strategies include:

- educating the public to the threat and identification of noxious weeds,
- managing for healthy, weed-resistant plant communities, and
- diligently surveying to provide early detection and eradication of new invasions.

Herbicides are most effective in the initial stages of infestation, when eradication, and or containment are possible. As research and experience continue to document success of biological controls and prescription livestock grazing, managers increasingly rely on these tools to treat landscape-scale infestations. Biological control and carefully managed grazing hold potential for weed control in situations where traditional methods are restricted by environmental or economic constraints⁽¹⁸⁻²⁰⁾.

The challenge for Wallowa County is to define desired plant communities, tolerable thresholds of non-native plants, and to choose target non-native invaders for extirpation and/or containment on a site-specific basis using strategic planning, collaboration, and integrated weed management.

I. General Information

Wallowa County Bio-physical Description

The diverse landscape of Wallowa County, Oregon is built on a dissected basalt plateau, including the Wallowa Mountain uplift, and the canyon-lands of the Snake, Grande Ronde, and Imnaha Rivers. Elevational extremes range from 9,000 plus feet of the glacial-carved Wallowa alpine peaks, to river-cut canyon bottoms below 1,000 feet. The great elevational, geographic, and topographic diversity common to the area creates several climatic zones that can vary over short distances. However, the regional climate is considered continental and dry. The Cascade Mountains, several hundred miles west, create a rain shadow effect, intercepting the majority of precipitation from westerly pacific weather patterns. Consequently, the majority of annual precipitation in the county is deposited as winter snows, with secondary rains in late spring. Summer rainfall may occur with convectional storms, and associated lightning storms are the most common cause of forest and grassland fires. Low elevation canyons may receive less than 10 inches of annual rainfall, while moisture on mountain peaks may exceed 50 inches. Seasonal temperatures also vary greatly, depending on elevational extremes, slope and aspect. Consequently, daily temperatures vary greatly depending on slope and aspect, location, and season. January temperatures above 6,000 feet may be 14° F; while below 3,000 feet may be 30° F. Summer temperatures below 3,000 feet range from 80 to 90° F, and above 6,000 feet temperature average may be 54° F in July ⁽²¹⁾.

Soils of the region are derived from basaltic parent material with older geologic material exposed at high elevations in the mountains, and low elevations in the canyons. Soils are also influenced by ash deposited from ancient volcanoes in the Cascade Range, and wind deposited loess from Pleistocene scablands to the north. Soil types range from thin, rocky, low-productivity ridge-top scablands to deep ash accumulations on productive grand fir sites. Continued weathering has resulted in mixing of ash and loess with rocky colluvium ⁽²²⁾. Consequently, soils fall under the general categories of:

- (A) Residual – derived in place from bedrock or colluvial rock materials.
- (B) Ash-loess – derived from deposited and accumulated ash and/or loess over older buried soil material.
- (C) Mixed – derived from colluvium, ash and/or loess well mixed in surface layers over older buried soil material.

Soil types influence the distribution of plant communities and the potential for weed invasion. Bluebunch wheatgrass communities, scabland communities, and xeric shrub lands occur on soils without loess, while Idaho fescue-prairie June grass, and mesic shrub lands occur on soils that are loess influenced. The presence of ash in forested communities indicates sites capable of supporting grand fir or sub alpine fir communities. Douglas fir and ponderosa pine stands occur on soils with little ash influence. Douglas fir is at a competitive advantage over ponderosa pine in loess-influenced soils, and ponderosa pine is more competitive on residual soils with little loess presence. Soil types form a continuum with transitional areas between differing plant communities where mixing of species occurs ⁽²¹⁾. The new plant invaders (i.e. noxious weeds) are now contributing to species mixing and establishing dominance in many plant communities.

Local diversity and the productivity of many sites provide opportunities to maintain native plant communities and restore degraded sites. Conversely, this diversity and productivity - combined with increasing rates of human-caused disturbance- also provides opportunities for non-native invasive plants establish populations across the landscape. The native canyon bunchgrass plant communities are at extreme risk for noxious weed invasion due to their proximity to neighboring weed infestations and to the intense disturbance regimes that canyon soils and plant communities are subject to. The rugged terrain in

the canyons makes them remote to large numbers of people allowing for some weed populations to expand unnoticed. The river corridors provide an excellent vector for the spread of noxious weeds because they are subject to annual flooding and erosion events associated with steep canyons. Recreational activities are concentrated along travel routes, providing a potential source of new weed infestations.

Wallowa County Demographic and Economic History

According to the 2000 U.S. Census, Wallowa County has a population of 7,150. The County covers 3,153 square miles, or 2,034,000 acres, and has a population density of 2.27 persons per square mile. The federal government owns over 57 percent of county lands. Federally designated wilderness areas total 576,813 acres, and Hells Canyon National Recreational Area and Eagle Cap Wilderness offer numerous outdoor recreation opportunities. The Forest Service maintains 750 miles of trail in these areas. Total Federal ownership, combined is 1,159,491 acres. Wallowa County borders Idaho on the east and Washington on the north. Umatilla and Union Counties are to the west and Baker County is to the south.

Population is concentrated in the four incorporated towns surrounded by rural and agricultural lands. The nearest large towns are La Grande, Oregon, approximately 50 miles away, and Lewiston, Idaho approximately 80 miles away. The county is accessed by Oregon State Highway 82 from La Grande and by Highway 3, which runs north to Lewiston. Both roads traverse rugged topography and deep cut canyons. The County has a jurisdiction of over 700 miles of road, the USFS has jurisdiction over 2,400 miles of road and the State Highway Department manages 100 miles. There are scattered populations of weeds along all roadways in Wallowa County. Weed populations continue to expand on secondary roads and form satellite populations across all landscapes.

Federal, state and local governments are the largest employers in the County (including three local school districts). The forest products industry and agriculture remain important critical economic sectors. Livestock is the major component in local agriculture, followed by hay and grain.

The local economy has been subject to severe economic impacts as the forest products and agriculture industries are curtailed and market forces fluctuate. The Endangered Species Act, increased environmental regulations, and environmental litigation have resulted in restrictions on natural resource use and pose a threat to the natural resource industries. Increased regulation and decreasing federal budgets may also limit the recreational use of the National Forests. Noxious weed control has suffered similar restrictions over the last twenty years (See Appendix I for details). Many feel these restrictions allowed noxious weeds to increase exponentially on public lands. However, the Wallowa Zone of the USFS now has an active weed management program, and is a partner in strategic planning and treatment implementation.

Since the 1980s, a downturn in the timber industry has resulted in a loss of 112 timber industry jobs with another 132 jobs lost from the U.S. Forest Service. The County has frequently ranked as having one of the highest unemployment rates in the state. The monthly employment rate has been as high as 19% during certain times of the year. As it is very difficult for natural resource-dependent communities to diversify their economies, one of the most successful strategies for rural economic development has been to support entrepreneurial businesses. According to the 2000 Census, Wallowa County has a 20% self-employment rate, the highest in the state. Government agencies and local non-profit corporations are contracting services for many natural resource projects, including weed control and other restoration activities. Community out-sourcing of services requires increased coordination and collaboration to fulfill management objectives. Weed managers continually seek alternate funding sources for project work, partnership opportunities, and cost-share programs for private landowners.

An arts industry has developed in the past 20 years with the establishment and expansion of bronze foundries and galleries. A growing tourism industry is creating additional businesses and jobs and adding to the local tax base, and economic diversity for Wallowa County. Loss of natural beauty and land productivity from noxious weeds aversely affects recreational activities and aesthetic value.

Many rural areas, like Wallowa County, are experiencing demographic shifts. Land investment opportunities, driven by high market values create economic disincentives for local producers (i.e., high land prices, development pressures, and low commodity prices). An aging population, combined with economic disincentives, affects the transition of ownership from one generation to the next. Increasing absentee land ownership continues to pose challenges to local weed managers by contributing to the loss of local knowledge and disruption of information derived from past experiences. As the County seeks to improve and diversify its economy, maintaining our quality of life and our ability to promote healthy communities remains one of our greatest assets.

II. Wallowa County Weed Control District

Wallowa County formed a weed control district on July 26, 1921, when the primary weeds of concern were Jim Hill mustard (*Sisymbrium altissimum* L.), Canada thistle (*Cirsium arvense*), and devil weed (*Thlaspi arvense* L.). Now, 83 years later, the weed list has expanded over 10 fold.

The Weed Control District currently operates under Oregon Regulatory Statute (ORS) 570.505. The Weed Control District boundary is the county line (see Map 1, page 6). The management objective of the Weed Control District is to: Promote healthy and diverse ecological communities by using early detection and integrated weed management techniques, including restoration and rehabilitation, to eradicate new infestations and contain and/or reduce existing populations.

The weed district supports the responsible use of natural resources by the local community. Stock growers, loggers, farmers, and other resource managers are invaluable allies in finding and controlling noxious weeds and in creating healthy plant communities that are more resistant to noxious weeds. However, it is also recognized that any disturbance from resource use can provide a niche and a vector for noxious weeds. Therefore, all land owners and managers in the district are encouraged to consider the risk created by disturbance and the potential for noxious weed invasion and manage accordingly. Careful use and management of natural resources generates community benefit that can sustain multigenerational knowledge and stability among natural resource managers and landowners. This type of knowledge and stability is critical to long-term understanding of weed control and proper resource use, and therefore community and landscape health.

The following chart illustrates the general functioning of the Wallowa Weed Control District. Descriptions of the major players and their roles and responsibilities are then described in the following paragraphs.

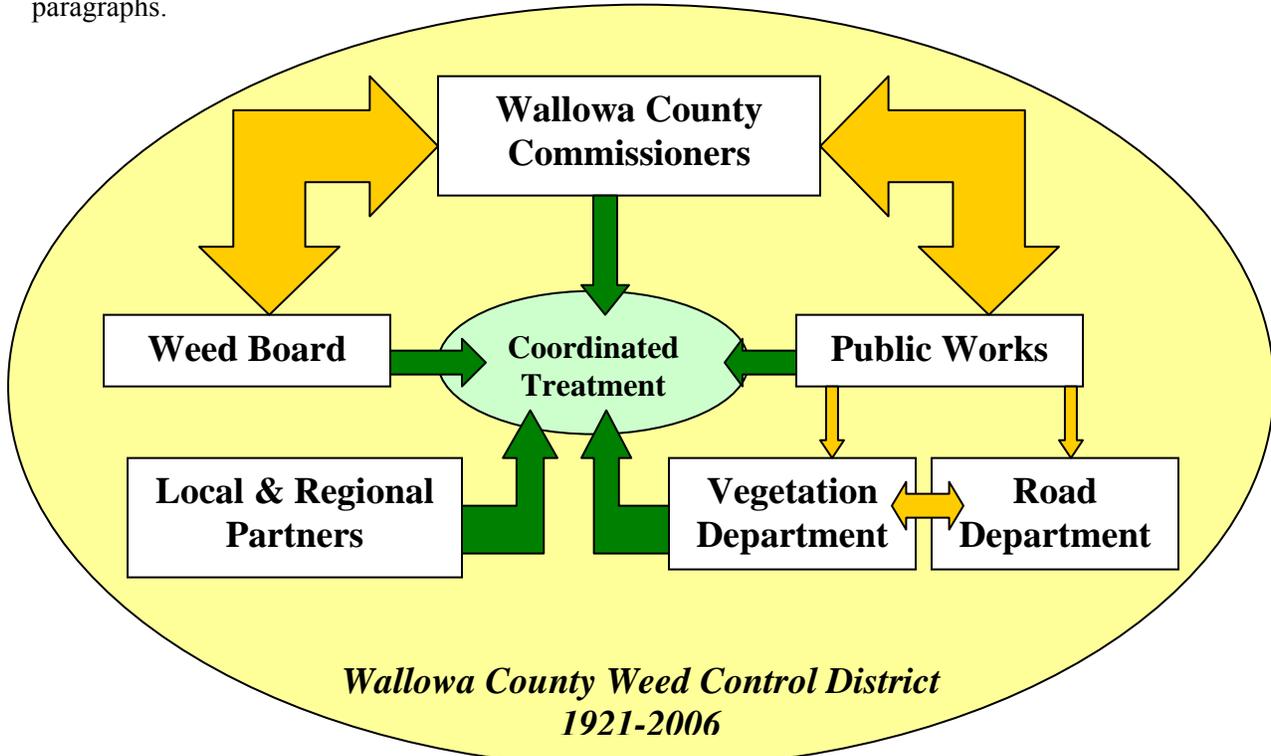


Figure 1. Wallowa County Weed Control District Organizational Chart. Orange arrows depict governmental hierarchy, green arrows represent collaborative relationship between departments and partners.

Wallowa County Commissioners

The Wallowa County Commissioners are the elected officials ultimately responsible to the community for the management of noxious weeds in the Weed District. They make all noxious weed policy and budget decisions. Their decisions are based on recommendations provided by the Wallowa County Weed Board.

The Weed Board

The Weed Board is an advisory committee appointed by the Wallowa County Commissioners to help set noxious weed program priorities. They are to assist in increasing public awareness of the spread of noxious weeds and in keeping the Board of Commissioners and budget committees informed of problems regarding funding and management of the noxious weed program.

- *Work cooperatively to promote and guide implementation of noxious weed control in Wallowa County Weed District and in doing so help to,*
 - *prevent the import of new invasive plants,*
 - *eradicate small infestations of noxious weeds where possible*
 - *and contain and manage existing weed populations*
- *Raise the value of the land economically and biologically;*
- *Improve the health of the community, promote stewardship, preserve natural resources*
- *Provide leadership and example for other counties and states in effective vegetation management*

Strategic planning by the Wallowa County Weed Board (with additional partners and cooperators) is ongoing and includes yearly updates of the noxious weed list and priority status organized by species and weed management zones. Action Items related to site specific projects are developed and implemented. Responsibility for each item is designated to sub-committees or individuals. Monitoring results and reporting on a regular basis provide additional strategies and inputs. Project objectives are projected over a temporal and spatial scale and goals may be short and long term.

1. Action Plan

The Wallowa County Weed Board will develop an action plan each year. They will also develop five-year plans and evaluate the effectiveness of the Integrated Weed Management Plan every ten years and as needed. The Integrated Weed Management plan includes perspectives on the current condition of weeds in the county as well as strategies and action items to achieve best possible outcomes regarding weed control. (See Appendix K, p. 66.)

2. Membership

The Wallowa County Weed Board is comprised of a minimum of 7 and a maximum of 11 volunteers appointed by the Board of Commissioners. Diversity among members is encouraged with the common factor being the commitment to control the spread of invasive noxious weeds. Each member serves a two-year term. Members do not receive monetary compensation; however, the commission may at times reimburse weed board members for travel expenses under certain circumstances and may reimburse the secretary for the cost of mailing minutes to the commissioners. Officers of the Board consist of Chairman, Vice-Chair and Secretary. Election of officers will be conducted at the May meeting and officers will serve one-year terms.

3. Responsibilities of Officers

Chairman: Contact members prior to meetings and define agenda items; delegate responsibility among weed board members and organize work groups and committees; work with the County Vegetation Manager to help implement the strategic plan and action items; act as liaison to the County Board of Commissioners; administer meetings.

Vice-Chair: Assist Chairman with duties and responsibilities and assume the position of Chairman if needed.

Secretary: Record proceedings at meeting and provide minutes to weed board members and the Board of Commissioners. Update yearly action items from the Action Plan and provide information to Weed Board members, Board of Commissioners, the general public and the media.

4. Procedures

The Weed Board holds regular monthly meetings at a location and time determined by the Board. The Chairman calls the meeting to order when participants in turn introduce themselves to guests and new members. Everyone has an opportunity to speak, and at minimum, offers one specific comment or question.

Agenda items are discussed in order. The Weed Board intends to make decisions through the consensus process, however when circumstances prevent all members stating their opinion in a timely manner or differences of opinion exist, a decision will be made by a majority vote of board members. Recommendations for the Board of Commissioners must be agreed upon by a majority of membership.

The Weed Board and the Vegetation Manager will meet with the County Commissioners twice a year, in January (year end report), and April (pre-season plans). The April meeting will be open to the public and be in the evening.

The Wallowa County Road Department

The County Road Department is managed by the Public Works Director and works cooperatively with the Weed Board and Vegetation Manager to accomplish common management goals and objectives. Vegetation management duties are¹:

1. Coordinate roadside residual herbicide programs on county rights-of-way.
2. Control broadleaf weeds and other undesirable vegetation on rights-of-way and rock/gravel pits.
3. Ensure the safe operation of roads in an efficient manner.

Vegetation Department Manager

The Vegetation Department Manager administers the County's weed program. The Vegetation Manager is supervised by the Public Works Director and has a direct working relationship with the Wallowa County Weed Board. Weed funds are managed by the Vegetation Manager. The vegetation manager is involved in the planning, organizing, directing and evaluating programs that control weeds throughout Wallowa County and assists the Public Works Director with other duties when needed. Specific responsibilities:

1. Survey weed populations, treat noxious weeds using integrated methods, including spot-spraying to eradicate small weed populations, monitoring results, coordination of weed control projects, and general management of the district weed control program.
2. Coordinate field activities with landowners, agencies, weed management areas, and other departments and cooperators.
3. Oversee cost-share programs.
4. Facilitate noxious weed law enforcement process.
5. Help organize and actively participate in monthly Weed Board meetings to discuss current status of projects and prioritize future work.

¹ Additional information may be obtained from the Integrated Road Management Plan.

Wallowa County Weed Policy (2006)

“NOXIOUS WEED” means any weed designated by the Wallowa County Board of Commissioners that is injurious to public health, agriculture, range, recreation, wildlife, or any public or private property; any weed that impacts and displaces desirable vegetation, such as Threatened and Endangered Plant Species, wildlife habitat, and livestock.

It is acknowledged that certain noxious weeds have become so thoroughly established and are spreading so rapidly on state, county, and federally owned lands, as well as on private land, that they may have been declared by Oregon Revised Statute 570.505 to be a menace to public welfare. Steps leading to eradication where possible are necessary. It is further recognized that the responsibility for such eradication and/or intensive control rests not only on the private landowner and operator, but also the county, state and federal government.

THEREFORE, IT SHALL BE THE POLICY OF WALLOWA COUNTY TO:

1. Increase awareness of potential economic loss due to existing and new invading weeds through continuous education of the public.
2. Rate and classify weeds at the county level.
3. Prevent the establishment and spread of noxious weeds.
4. **Encourage and implement control** of infestations of designated weed species and, where possible their eradication. When budgets allow, offer a landowner cost share program for “A” and “B” and Watch List rated weeds (projects controlling B and Watch List rated weeds will generally be lower priority than those controlling “A” rated weeds, but will be evaluated on a case by case basis for the merit of the project).
5. Manage a biological control of weeds program for yellow starthistle, leafy spurge, St. Johnswort, diffuse/spotted knapweed, Dalmatian toadflax and others, in cooperation with ODA’s Biological Control of Weed Program.
6. Cooperate with other states, federal agencies, private citizens, the Tri-County and Tri-State Weed Management Areas, The Lower Grande Ronde Noxious Weed Program, Nez Perce Tribe and other groups in controlling noxious weeds in Wallowa County and our region.

Noxious Weed Rating System

The purpose of the rating system is to provide an official guideline for implementing noxious weed control programs in Wallowa County, and assist Wallowa County in the distribution of available funds as specified in ORS 570.580 to 670.600 (cost share assistance grant and matching fund grants). Noxious Weeds shall be designated “A” or “B” or placed on the “Watch List”.

1. An “**A**” designated weed is: a priority noxious weed designated by the Wallowa Weed Board as a target weed species on which the Weed Control District will comply with a state wide management plan and/or implement a county wide plan for intensive control and monitoring. An “A” rated weed may also be a weed of known economic importance which occurs in small enough infestations to make eradication/containment possible; or one that is not known to occur here, but its presence in neighboring counties make future occurrence here seem imminent.

Recommended Action: Infestations are subject to intensive control when and where found.

2. A “**B**” designated weed is: a weed of economic importance, which is both locally abundant and abundant in neighboring counties.

Recommended Action: Moderate control and or monitoring at the county level.

3. Plants on the “**Watch List**” are weeds that are known to occur in Wallowa County and are realized to have some economic or ecological importance but are not listed as “A” or “B” due to lack of information or are currently in a review process. This list is available upon request to the public from the Wallowa County Vegetation Manager.

Recommended Action: Inventory and monitor existing infestations, elevate awareness through education, contact affected landowners. Control is encouraged but at the discretion of the landowner.

Legal Standing of the Weed District

Oregon State laws and Wallowa County ordinances provide legal standing for action to control noxious weeds. The Wallowa County Board of Commissioners has passed the following ordinances:

- 1921:** Formation of the Wallowa County Weed Control District
- 1985:** Ordinance Controlling Spread of Tansy Ragwort and establishing a Hay Quarantine
- 1990:** Ordinance 90-002 Declaring Emergency to Eradicate Yellow Starthistle and All Species of Noxious Weed in the Wallowa County Weed Control District
- 1991:** Ordinance 91-001 Controlling Spread of Noxious Weeds in Wallowa County
- 2000:** Resolution 2000-001 In the Matter of Amending Ordinance 91-001 / Controlling the Spread of Noxious Weeds in Wallowa County
- 2000:** Article 43 Citation Ordinance to Authorize Enforcement of Weed Laws
- 2002:** Resolution 2002-006 In The Matter of Adopting a Weed Free Forage Inspection Program within Wallowa County
- 2006:** Adoption of the IWMP; its policies and procedures, and strategic plans.

Oregon State Weed Control Laws

Rationale for Oregon State noxious weed control laws is provided below. Full text of Oregon weed laws is provided on-line following this link: <http://www.leg.state.or.us/ors/570.html>; or in Appendix D.

570.500 Legislative findings; need for evaluation. The Legislative Assembly finds and declares that:

1. Noxious weeds are currently invading agricultural land and natural environments and causing severe production losses, increased control costs, negative impacts on native flora and fauna, decreased utilization of recreational areas and decreased value of farm, range and forest lands. Some of those noxious weeds are poisonous or harmful to humans or animals.
2. Noxious weed control programs are carried out by private and public landowners, counties and state agencies.
3. The economic and environmental impacts of noxious weeds in Oregon have not been quantified. Although 92 weeds have been listed by the State Department of Agriculture as restricted noxious weeds or prohibited noxious weeds, only tansy ragwort has been studied for economic and environmental impact. A comprehensive evaluation of other noxious weeds is necessary to determine in which areas, if any, the invasion of noxious weeds is sufficiently severe to justify a declaration by the Director of Agriculture of a weed control emergency.
4. The overall effectiveness and efficiency of the various noxious weed control programs of this state have never been evaluated. Evaluating and coordinating those programs could reduce the need for the director to declare weed control emergencies. [1999 c.472 §1]

Noxious Weed Enforcement Policy and Procedures

In accord with ORS 570.500-600 (see Appendix D ORS for weed control), the Wallowa County Weed Board will annually submit a proposed list of A and B designated weeds (see Tables 1 and 2) and the recommendations for enforcement to the Wallowa County Board of Commissioners list by the third Tuesday of April.

The Wallowa County Commissioners will review, revise and publish the final lists and enforcement policy for two consecutive weeks (in accord with ORS) in local newspapers.

The Wallowa County Vegetation Manager (Weed Inspector as appointed in accord with ORS 570.520) will be designated as the primary enforcement officer for management of noxious weeds in Wallowa County. The Vegetation Manager will locate and record infestations of noxious weeds on public and private lands within the county.

An infestation is defined as the presence of one or more plants listed as a Noxious Weed in the current Wallowa County Weed List. The Vegetation Manager is directed to implement Noxious Weed enforcement actions in the progressive manner described below (steps 1-4). However, it is noted that before moving to enforcement actions, the inspector should use all available means (such as education, facilitation, and reasonable cost share) to resolve noxious weed issues. It is also noted that a violation of noxious weed law may be deemed urgent and that the inspector, at his/her discretion, is required to use only steps 3 and 4 below.

1. Notification Letter (Optional)

The inspector shall send a letter of friendly tone notifying the property owner of: a Noxious Weed infestation on their property (with photo of their property, if possible), informing them of their obligation to control the infestation (copy of ORS 570.500-600 and the WC Weed List), offering technical assistance and requesting that the property owner report to the WC Weed Inspector their intentions for controlling the infestation. The WC Weed Inspector should sign the letter.

2. Hand Delivered Or Certified Letter (Optional)

A hand delivered or certified letter will be sent to property owners who fail to respond to the Notification Letter. The letter reminds the property owner of the previous notification letter (a copy of which is enclosed), cites appropriate sections of ORS 570.500 -600, and repeats the offer of technical assistance. The letter also directs them to report, within 10 days, to the WC Weed Inspector their plans for controlling the infestation. Sent by WC Weed Inspector and carbon copied to WC District Attorney.

3. Posting/Enforcement Letter (Hand Delivered or Certified Letter)

The property may be posted and/or a hand delivered or certified letter sent by the WC Weed Inspector and carbon copied to the WC District Attorney directing the property owner to initiate specific control efforts within 2-20 days (or by a specific date the following spring) and that failing to do so will result in criminal citation and financial liability for control efforts implemented by the county or its agents.

4. Citation

If there is no response to the Enforcement letter or if there is non-compliance with the expected control plan within the allotted time, the landowner will be cited by the appropriate law enforcement agency and referred to the District Attorney for prosecution. The WC Weed Inspector will be directed to undertake control efforts on the property, with the property owner to be held liable for costs within the criminal prosecution or a lien on the property will be established.

Weed District Funding

Historically, the noxious weed program has been funded through fees for services, the county general fund, road department, and grants. Road Department dollars are distributed to meet safety, maintenance and environmental needs. The road department receives 33% of its revenues from Highway User Fees, 57% from Federal Forest Receipts, and 10% from miscellaneous revenues. The loss of timber receipts from U.S. Forest lands and budget reductions have constrained weed management activities. Consequently, the county government supported three tax levy proposals in 1998, 2000, and 2002.

In 1998, a one-year local option was passed with a majority of voters, but not approved due to a less than 50 percent voter turn out. In 2000, a five-year serial tax for control of invasive noxious weeds was placed on the ballot and was defeated. In 2002, a similar measure was successful in appropriating approximately \$85,000.00 annually for five years. Weed Control District partners actively search for additional funding sources (Appendix E.).

Weed District Local and Regional Partner

Each of the organizations represented as local and regional partners in the Wallowa County Integrated Weed Management Plan have financial resources and/or skills and equipment to perform certain tasks. Partners collaborate on noxious weed control and coordinate application for supplemental funding to accomplish weed district goals. Local volunteers and partners will be instrumental in educational events, work days, prevention strategies and other aspects of weed management.

Weed District Planning

The Wallowa County Weed District has developed this Integrated Weed Management Plan to guide weed control efforts over a ten-year period. The Integrated Weed Management plan includes perspectives on the current status of weeds in the county as well as strategies and action items to achieve best possible outcomes regarding weed control. Work plans and district wide goals are presented as:

- Ten year Goals
- Five-year objectives and
- Annual action plans.

The Wallowa County Weed Board developed a list of 16, ten-year goals. In the process of developing these goals, six main areas of emphasis surfaced:

1. Prevention and education,
2. Inventory and mapping,
3. Treatment,
4. Monitoring and restoration,
5. Enforcement, and
6. Programmatic issues.

The ten-year goals have been further detailed by the formation of five-year objectives that forward a particular ten year goal. The 2006 action plans, representing current efforts from the USFS, Wallowa Resources, the Wallowa County Weed Board, and the Wallowa County Vegetation Department, are located in section: VI. Appendices K-N.

1. Prevention and Education

Goal 1: Increase public awareness of ecologic and economic losses from invasive weeds through education and collaboration.

5 Year Objectives:

- A. Analyze, publicize and address noxious weed impacts on agriculture.

- B. Analyze, publicize and address noxious weed impacts on biodiversity and habitat function.

Goal 2: Publicize current status of individual noxious weeds, their identification, threat and their management strategies and plans.

5 Year Objectives:

- A. Share plans with concerned landowners and managers
- B. Publish weed management plans for high priority weeds in the local media.

Goal 3: Provide education for the public on the nature of the weed problem and current management status and strategies.

5 Year Objectives:

- A. Inform the public as to the impact and importance of the weed levy
- B. demonstrate effectiveness of weed control efforts
- C. Upgrade Shadowboxes and have available for display
- D. Update county brochures & education materials including presentations
- E. Have 3 demonstration prescription grazing projects in district
- F. Support the Certified Weed Free Forage Inspection Program with technical advice and educational/enforcement efforts such as the Wallowa County Hay Quarantine.
- G. Expand weed tour and broaden appeal (ave. attendance = 50)
- H. Evaluate & make mobile and permanent Wash Stations for vehicles, and equipment
- I. Support, man, and recruit help to run the Minam Hay Station
- J. Create a weed website and/or hotline
- K. Improve education efforts in the local media
- L. Evaluate and improve weed information road signs
- M. Establish incentive programs (early detection)
- N. Provide “Weed Free” certificate for landowners
- O. Hold annual weed volunteer/managers appreciation events
- P. Establish regular use of Certified forage on public lands
- Q. Promote certified hay sales outside the county
- R. Establish a weed bounty program
- S. Display the role and By-laws for the Wallowa County Weed Board
- T. Be available to clubs, interested groups, schools, etc., to present on the safe use of pesticides and other methods of control, including IWM strategies.
- U. Incorporate weed education into school curriculums

2. Inventory and Mapping

Goal 4: Survey and map all noxious weeds in Wallowa County by species.

5 Year Objectives:

- A. Create and maintain integrated GIS Weed Map for all
- B. Map and evaluate rock pits – designate active vs. inactive
- C. Inventory high use sites (i.e. fairgrounds, landfills, trailheads)
- D. Conduct aerial inventory on backcountry risk areas every two years
- E. Map native seed collection sites on public lands

3. Treatment

Goal 5: Assist all Weed District partners with effective implementation of weed control measures.

5 Year Objectives:

- A. Produce and Advanced Weed Guide for managers
- B. Establish successful treatment/revegetation plots
- C. Publicize accomplishments regularly
- D. Establish backcountry/wilderness restoration techniques
- E. Analyze effectiveness and cost of native and non-native over 5 years
- F. Treat all high priority weed sites not in containment areas
- G. Reduce high priority weeds outside containment areas by 70% (See Map 2 p. 30.)
- H. Manage containment areas for “no flow”
- I. Reduce chemical use by successful management/prevention
- J. Provide technical assistance to the private landowner with pesticide recommendations and alternative methods of weed control.

Goal 6: Facilitate and support the distribution of biological control agents where appropriate for noxious weeds.

5 Year Objectives:

- A. Release and monitor bio agents aggressively (evaluate case by case)
- B. Support the research and development of new biological control agents for noxious weeds impacting Wallowa County (e.g. sulfur cinquefoil, Scotch thistle)

4. Monitoring and Restoration

Goal 7: Support on going project inventory and monitoring

5 Year Objectives:

- A. Review IWMP on an area-by-area basis
- B. Monitor/document success/failure of all treatments
- C. Begin restoration on at least 1500 acres

5. Enforcement

Goal 8: Comply with federal, state and local laws, regulations and policies regarding noxious weed control.

5 Year Objective:

- A. Evaluate enforcement policy and procedure particularly in regards to:
 - i. the hay quarantine
 - ii. regulations regarding the introduction of noxious weeds through construction and recreation vehicles
- B. Work with landowners to obtain compliance with existing weed laws.

6. Programmatic

Goal 9: Identify traditional and non-traditional funding sources for weed programs.

5 Year Objective:

- A. Stabilize long term funding for all weed programs (with levy, grants...)

Goal 10: Implement the Weed Policy and Classification System.

5 Year Objectives:

- A. Develop an “A”, “B”, and “Watch List” to identify noxious weeds and their severity.

- B. Assess new noxious weeds not presently known to occur in Wallowa County, but that have high invasion potential.

Goal 11: Provide funding for noxious weed treatment efforts and when budgets allow offer a cost share opportunity to landowners with listed noxious weeds.

5 Year Objectives:

- A. Cost share is available/accessible/ adequate for treatment (all phases)
- B. Expand weed program staff to match workload

Goal 12: Facilitate cooperation and coordination between jurisdictions, agencies, land managers and private owners.

5 Year Objectives:

- A. MOU in place
- B. Integrate programs with CWMA's and State agencies
- C. Evaluate CWMA potential in weed district

Goal 13: Coordinate weed control on all county land including county road shoulders, rights-of-way, gravel pits, state highways, and county recreation areas, as determined for legal and safety purposes.

5 Year Objectives:

- A. Target field crews for weed ID (i.e. ODF, Road crew, Loggers)
- B. Evaluate CWMA potential in weed district
- C. Encourage out of county roadwork/construction crews to clean vehicles

III. Weed Control Methods

Effective weed management depends on an understanding of plant biology and ecological community dynamics. A multi-scale multi-disciplinary, ecological perspective is helpful in reviewing the history of weed infestations, management approaches, and developing management strategies. The pervasiveness and complexity of noxious weeds necessitates using IWM. Education, inventory, and impact assessment comprise the first phase of an IWM program. The second phase includes prioritizing sites by level of degradation and invasibility from and by a weed species, and choosing an appropriate and cost effective management strategy. The third phase is adopting proper land management practices. The fourth phase is evaluating the management strategy through monitoring, and adjusting techniques to optimize the IWM program⁽²³⁾. Surveying and mapping weed populations allows data to be used for estimating and mapping weed populations and density, followed by weed classification, and a prioritization process to schedule control activities. Management tools are nested within the IWM model and include:

Prevention and Education

Prevention and education are the best long-term strategies by managing for healthy weed-resistant plant communities and limiting the spread of noxious weed seed and plant parts by humans and associated animals. Identification of weeds and assessing invasive characteristics is critical to early detection and prevention strategies. Increasing awareness by the general public through educational information will add community support, increase weed identification and detection, and foster cooperation and partnerships. Implementing weed control laws, hay quarantines, and educating the public on weed control strategies will increase awareness of individuals to clean infested equipment, and manage their activities to minimize negative impacts to the environment (Fig. 2). A prioritization process for determining invasive potential of specific weeds in concert with delineated management zones, provides a risk assessment to improve prevention strategies.

Biological Weed Management

Biological control is using living organisms to affect the biology of a target species. Insects, nematodes and microorganisms like fungi and bacteria are among organisms introduced to weed populations through programs coordinated by Oregon Department of Agriculture. Insect herbivory has played an important role in plant evolution and community dynamics. The release of host-specific seed-head flies, and root boring insects show promise in reducing weed populations and containing their spread. The annually revised Pacific Northwest Weed Control Handbook includes a list of the current status of biological weed control agents in Oregon, Washington, and Idaho ⁽²²⁾.

Herbivory from larger grazing herbivores can also be directed to negatively impact weed populations while enhancing the competitive nature of desired plant communities. By matching animal preference for individual weed species, a grazing prescription can be developed. Prescription grazing for weeds must be applied when weeds are most palatable to the herbivore and susceptible to damage by grazing. Furthermore, grazing should be implemented when the associated plant community expresses the most grazing tolerance or lowest relative palatability, and timed to not negatively impact bio-agents if present. Prescription grazing should be approached primarily from the standpoint of weed management, not livestock production.

Selective grazing has been used to alter the community composition in favor of native species ^(18, 19, and 26). Goats have been used for browsing invasive shrubs and reducing fire threats and sheep have been used in conifer plantations for selective grazing and fine fuel reduction. Cattle, goats and sheep have been used in rangeland rehabilitation for trampling seeded areas to enhance seed to soil contact. Current research is studying the effects of combined grazing and biological control to create synergistic effects on targeted noxious weeds. The Ecological Area-wide Management (TEAM) of leafy spurge is encouraged by

results from sheep grazing leafy spurge and knapweed. Biocontrol agents seem to work better if grazing breaks up the dense canopy cover ⁽²⁵⁾.

Regarding prescription-grazing strategies, it is recognized by weed control district partners that contact between domestic sheep or goats and wild bighorn sheep is to be avoided to reduce risk of disease transmission and negative impacts to bighorn populations. The Weed district hopes for the day when this situation will be resolved by disease control research or policy changes. Although grazing has been considered a cultural practice in the context of IWM, prescription grazing exerts biological pressure on target species, and is therefore categorized in this plan as biological control.

Chemical Control

Use of herbicide applications to target plants is most effective during initial establishment of weed populations when eradication may be possible. However, chemical control will remain an integral part of weed containment and landscape scale infestation management. Timing and rate of application is critical and knowledge of plant physiology, phenology, and morphology are essential for effective chemical control. Use of selective herbicides such as 2, 4-D, and clopyralid can remove broad leaf weeds and shift the competitive balance towards grasses. Broad-spectrum herbicides such as glyphosate may affect all plants, thereby requiring additional care in application and revegetating open niches with desired species may be appropriate. Herbicides with residual soil activity such as picloram are effective in range and forestland settings when follow-up treatment may be restricted by remoteness. The annually revised Pacific Northwest Weed Control Handbook provides herbicide treatment recommendations⁽²²⁾. This handbook is designed as a reference for weed control practices used in cropping systems, and site/situations in Oregon, Washington, and Idaho. Herbicide use is subject to Federal Law and label information provides legal guidelines.

Cultural Control

Cultural controls are aimed at enhancing desirable vegetation to minimize weed invasion. Agricultural practices including the use of cover crops, competitive crop species, no-till cultivating, revegetating with desired species to fill empty niches and to develop weed resistant pastures and agricultural fields. Fertilization can also be useful in increasing competitiveness of desired species.

Mechanical Control

Physical and mechanical control methods can be effective on small infestations. Methods include hand pulling/grubbing individual plants, tillage to uproot weeds, mowing actively growing plants, mulching to exclude light to target plants, flooding to create anaerobic conditions, and fire to remove biomass and create seed bed for revegetating efforts. Some perennial weeds with adventitious rooting and rhizomes, such as leafy spurge, may be spread through tillage, but repeated tillage every 21 days during the growing season, effectively controlled Canada thistle ⁽²³⁾.

Revegetation

Revegetation is the seeding or planting degraded and treated sites to fill empty niches created by removal of a weed species. Methods include seed bed preparation by chemical, cultural, and mechanical control of weed population and seeding of desired species by hand or with equipment, including range drills. Incorporating livestock trampling shows promise to enhance seed-bed preparation and seed-soil contact. Knowledge of weed seed dormancy cycles and soil bank characteristics are important to the application of all IWM methods^(23,24).

IV. Strategic Plan

The weed district realizes that prevention and education, combined with early detection and eradication, are the most powerful tools for long-term management of noxious weeds. Early detection can lead to eradication, which is hugely more cost effective than managing containment areas and landscape level infestations. The weed population curve below illustrates the concept. Weed managers want to operate on the bottom end of this curve, while population levels, ecological impacts and costs are low. Often times though, we end up trying to “catch” a weed as it climbs the steep part of its population growth curve or, worse yet, we attempt to manage a weed after the curve has flattened and the weed has arrived at or near it’s biological potential.

THE WEED CURVE

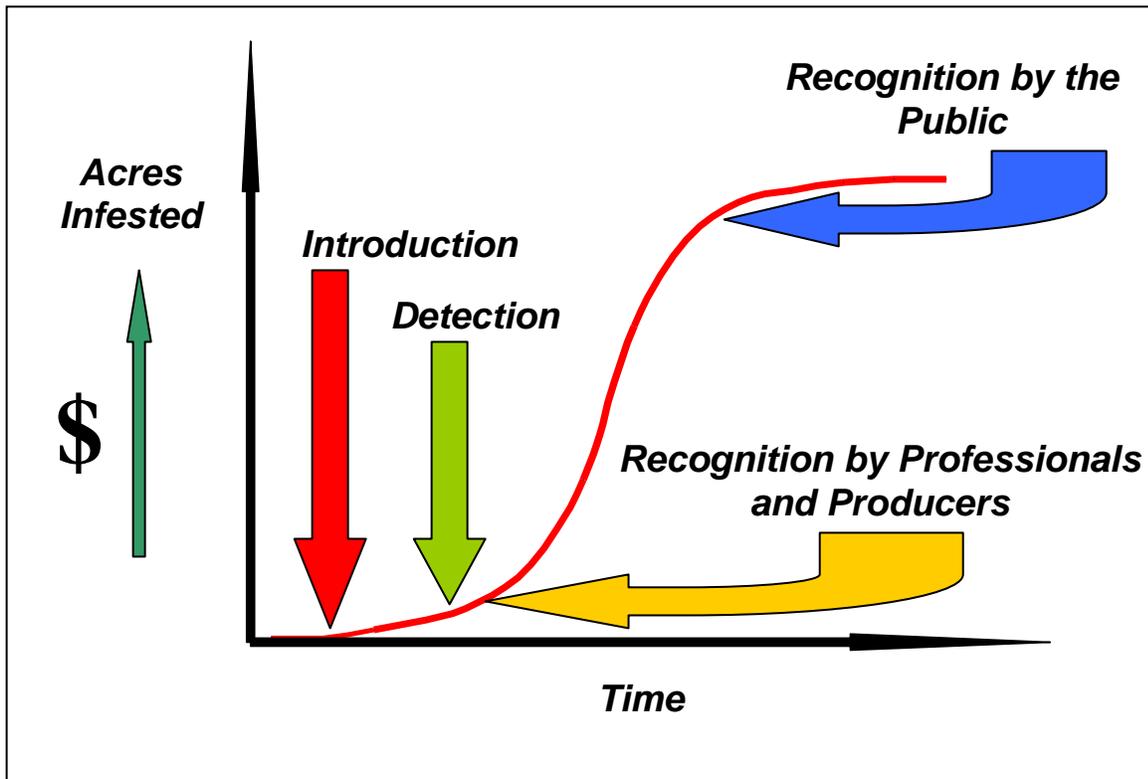


Figure 2. *The Weed Curve.* This graph shows the lag time between introduction of weeds, detection of infestations by professionals and producers, recognition by the general public, and illustrates the critical need for early detection.

Noxious Weed Prioritization Rating System

The Wallowa County Weed Board prioritizes noxious weeds using four weed management criteria:

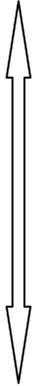
- (1) Invasibility characteristics and threat level,
- (2) Confirmation of presence and estimated area affected,
- (3) Potential to eradicate and or contain population, and
- (4) Effectiveness of biological control.

Invasive ability (invasibility) is measured by the competitive characteristics of a particular plant (Appendix F). For management purposes, Wallowa County is divided into zones based on biophysical characteristics. The Wallowa Mountains, Wallowa Valley, North canyons, East canyons, Forested Lands,

and the Zumwalt Prairie, comprise the basic geography of the county (see map 1). Current or potential threats by invasive weeds in any of the management zones are assessed for risk by the four criteria stated earlier. A total score provides a reference by combining ratings by species across the management zones. That score informs designation of a weed as “A” “B” or Watch list”. In addition, the Weed Board can consider local history and community input regarding weed species placement on the each list.

Many annual, biennial, and certain perennial weeds can rapidly colonize new sites by flowering early, producing numerous seeds, and having adaptive dispersal mechanisms. Perennial weeds have the ability to store carbohydrates for growth over several years, and many produce seed that can germinate in numerous environments with variable dormancy rates. Consequently, the soil seed bank becomes enriched with seed with potential germination over time ⁽²⁴⁾

Low priority weeds



- 1 = Invasibility and/or threat low, containment impossible, and/or bio-control is effective.
- 2 = Invasibility and/or threat medium, containment impossible, and/or bio-control is effective.
- 3 = Invasibility high, presence confirmed or probable, threat high, containment may not be possible, and/or bio-control possible.
- 4 = Invasibility high, presence confirmed threat high, eradication/containment possible, and bio-control not effective.

High priority weeds

Table 1. "A" Listed weeds by species, management zone, and priority score.

Wallowa County "A" List Noxious Weed Species 2006		Mountains	East Canyons	North Canyons	Wallowa Valley	Forest Lands	Prairie	Total Score
Common Name	Scientific Name							
Bloodrop/Pheasant Eye	<i>Adonis aestivalis</i>	2	3	3	4	2	4	18
Bugloss, Annual	<i>Anchusa arvensis</i>	3	3	3	3	2	3	17
Bugloss, Common	<i>Anchusa officianalis</i>	3	4	4	3	4	3	21
Common Crupina	<i>Crupina vulgaris</i>	2	3	3	2	2	3	15
Dalmatian Toadflax	<i>Linaria dalmatica</i>	3	4	4	3	2	3	19
False Hoary Allysum Hawkweed, Meadow	<i>Bertaroa incana</i>	3	3	3	4	3	3	19
	<i>Hieraceum pratense</i>	4	4	4	4	4	4	24
Hawkweed, Orange Italian Thistle	<i>Hieracium aurantiacum</i>	4	4	4	4	4	3	23
	<i>Carduus pycnocephalus</i>	1	4	4	3	2	3	17
Jointed Goatgrass	<i>Aegilops cylindrica</i>	1	3	3	2	2	3	14
Knapweed, Diffuse	<i>Centaurea diffusa</i>	3	3	2	3	3	2	16
Knapweed, Meadow	<i>Centaurea pratensis</i>	2	3	4	4	4	4	21
Knapweed, Spotted	<i>Centaurea maculosa</i>	4	4	4	4	4	4	24
Knapweed, Russian	<i>Centaurea repens</i>	3	4	4	4	4	3	22
Knotweed, Bohemian Knotweed, Giant	<i>Polygonum bohemicus</i>	2	3	3	2	2	2	14
	<i>Polygonum sachalanense</i>	2	3	3	2	2	2	14
Knotweed, Japanese	<i>Polygonum cuspidatum</i>	2	3	3	2	2	2	14
Leafy Spurge	<i>Euphorbia esula</i>	4	4	4	4	4	4	24
Mediterranean Sage	<i>Salvia aethiopsis</i>	3	3	3	3	3	3	18
Medusahead rye	<i>Taeniatherum caput-medusae</i>	3	3	4	4	3	4	21
Musk Thistle	<i>Carduus nutans</i>	2	2	2	3	2	4	15
Myrtle Spurge	<i>Euphorbia mysinites</i>	3	4	4	3	3	3	20
Oxeye Daisy	<i>Chrysanthemum leucanthemum</i>	3	3	3	3	4	3	19
Perennial Pepperweed	<i>Lepidium latifolium</i>	3	4	4	4	3	4	22
Poison Hemlock	<i>Conium maculatum</i>	4	4	4	4	3	3	22
Purple Loosestrife	<i>Lythrum salicaria</i>	3	3	3	3	3	3	18
Rush Skeletonweed	<i>Chondrilla juncea</i>	4	4	4	4	4	4	24
Scotch Thistle	<i>Onopordum acanthium</i>	1	3	3	3	3	3	16
Sulfur Cinquefoil	<i>Potentilla recta</i>	3	4	4	3	3	4	21
Tansy Ragwort	<i>Senecio jacobaea</i>	3	4	4	4	4	3	22
Whitetop	<i>Cardaria draba</i>	3	4	4	4	4	4	23
Yellow Starthistle	<i>Centaurea solstitialis</i>	2	3	4	3	3	4	19
Yellow Toadflax	<i>Linaria vulgaris</i>	4	3	3	3	3	3	19

Yellowed cells indicate high priority weeds

Table 2. "B" Listed weeds by species, management zone, and priority score.

Wallowa County "B" List Noxious Weed Species 2006		Mountains	East Canyons	North Canyons	Wallowa Valley	Forest Lands	Prairie	Total Score
Common Name	Scientific Name							
Canada Thistle	<i>Cirsium arvense</i>	2	2	2	3	3	2	14
Chicory	<i>Cichorium intybus</i>	3	3	3	2	1	2	14
Common Burdock	<i>Arctium minus</i>	2	2	2	2	2	2	12
Common Teasle	<i>Dipsacus fullonum</i>	2	2	2	2	2	2	12
Field Bindweed	<i>Convolvulus arvensis</i>	2	3	3	3	3	3	17
Hounds Tongue	<i>Cynglossum officinale</i>	3	3	3	3	3	2	17
Kochia	<i>Kochia scoparia</i>	1	2	2	3	1	2	11
Mullen	<i>Verbascum thapsis</i>	2	2	2	2	2	2	12
Puncture vine	<i>Tribulus terrestris</i>	1	3	3	3	2	2	14
Reed Canary Grass	<i>Phalaris arundinacea</i>	2	2	2	2	2	2	12
St. Johnswort	<i>Hypericum perforatum</i>	1	1	1	1	3	2	9
Western Waterhemlock	<i>Cicuta douglasii</i>	3	3	3	3	2	3	17
Ventenata	<i>Ventenata dubia</i>	3	3	3	3	2	3	17
Tall Buttercup	<i>Rununculus acris</i>	3	3	3	3	3	3	18
Bur Buttercup	<i>Rununculus testiculatum</i>	1	2	3	3	1	3	13

Table 3. "Watch" Listed weeds by species, management zone, and priority score.

Wallowa County "Watch" List Weed Species 2006		Mountains	East Canyons	North Canyons	Wallowa Valley	Forest Lands	Prairie	Total Score
Common Name	Scientific Name							
Black Henbane	<i>Hyoscyamus niger</i>	1	1	1	1	1	1	6
Bouncing Bette	<i>Saponaria officinalis</i>	2	3	3	2	1	1	12
Buffalo Bur	<i>Solanum rostratum</i>	1	1	1	1	1	1	6
Common Tansy	<i>Tanacetum Vulgare</i>	2	3	3	3	3	2	16
Bur Chervil	<i>Anthriscus cauculus</i>	1	3	3	2	1	2	12
Clary Sage	<i>Salvia Pratensis</i>	2	3	3	3	2	3	16
Common Cockle Bur	<i>Xanthium strumarium</i>	1	1	1	1	1	1	6
Dyers Woad	<i>Isatis Tinctoria</i>	2	2	2	2	2	2	12
Foxtail	<i>Hordeum leporinum</i>	2	2	2	2	2	2	12
Himalayan Blackberry	<i>Rubis concolor</i>	-	3	3	3	3	2	14
Lambsquarter	<i>Chenopodium berlandieri</i>	2	2	2	2	1	2	11
Marsh Elder	<i>Iva xanthifolia</i>	2	2	2	2	1	2	11
Russian Olive	<i>Elaeagnus angustifloia</i>	2	2	2	3	2	2	13
Russian Thistle	<i>Salsola iberica</i>	2	3	3	3	2	3	16
Salt Cedar	<i>Tamarix ramosissima</i>	2	2	2	2	2	2	12
Scotch broom	<i>Cytisus scoparius</i>	3	2	2	3	3	2	15
Bachelor Button	<i>Centuariacyanus</i>	1	3	3	2	1	2	12
Sweet Briar Rose	<i>Rosa eglaturia</i>	2	3	3	3	2	3	16
Tree of Heaven	<i>Ailanthus altissima</i>	1	3	3	3	1	2	13

Yellowed cells indicate high priority weeds

Red letters indicate the top priority weeds for the county at this time

Wallowa County Weed District Weed Management Plan

The Weed Board and Area Weed Managers are working together to accomplish the following specific objectives:

Blood Drop Treat all roadside infestations (and other sites that have high potential to spread this weed). Intensively inventory so that current distribution is apparent, work with ODA to analyze this plants invasibility and potential threat to Wallowa County, evaluate containment area designation and treat accordingly.

Mediterranean Sage and Orange Hawkweed Neither of these weeds is known to be present in the weed district. However, they are known to exist near the county line and do present a substantial threat if they were to invade. Therefore, managers will actively monitor for new sites in high-risk areas. Any sites found will be immediately and aggressively treated with the goal being eradication.

Rush Skeletonweed This relatively new invader is perhaps the weed with greatest potential to negatively impact the weed district. Rush Skeletonweed was discovered very early in its invasion of the weed district due to the commendable efforts of state and regional weed managers to communicate about new species. Weed District managers now have the opportunity to control this weed while its population is very small. However, Rush Skeletonweed is very invasive (largely due to its wind born seeds) and will require a very high level of vigilance to successfully contain this invader. All known sites should be managed to control seed production and be aggressively treated. Biological controls are in place, but they are not consistently controlling populations.

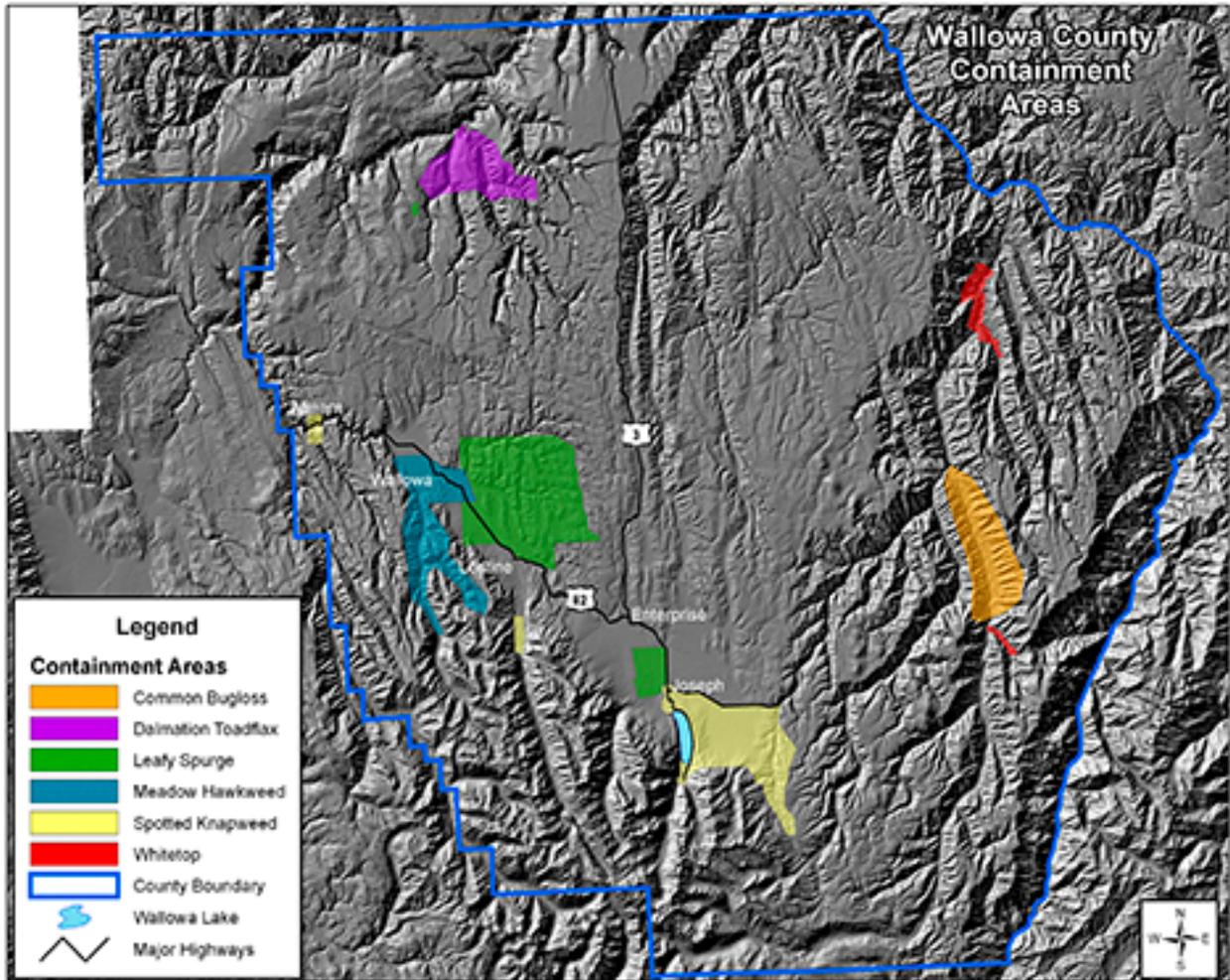
Russian and Meadow Knapweed, Perennial Pepperweed, False Hoary Alyssum, Purple Loosestrife, and Tansy Ragwort All of these weeds have very limited known distributions within the weed district and they also have great potential to impact the district. All sites of these weeds will be treated aggressively with eradication as the goal. Of these weeds only Purple Loosestrife has a potentially effective biological control though it is affected along the Snake River by fluctuating water levels. Also, current inventory does not indicate that there is enough of this weed to merit biological control. Tansy Ragwort has an effective biological control in the more temperate climates of the Pacific Northwest. They do not survive the cold winters east of the Cascade Range. The weed district will cooperate with ODA implementing their eradication program for Tansy Ragwort.

Spotted Knapweed, Leafy Spurge, Meadow Hawkweed, Whitetop and Dalmatian Toadflax All of these weeds are top priorities for the district because of their known invasiveness and due to the huge economic and ecological threat they pose to the weed district. Containment areas for these weeds have been established (see Maps 2 and 2a-f, below) because they are present in high enough numbers that eradication is locally impossible. However, all of these populations require the most aggressive management and the utmost vigilance. Within the containment areas, intensively treat and monitor all sites that present a risk of spread outside the containment area, particularly roadsides and waterways. Also, within the containment area biological and cultural controls shall be prioritized if they are thought to be potentially effective in reducing the impact of the weed and/or if they will benefit integrated control measures. Currently only Dalmatian Toadflax and Leafy Spurge have potentially effective biological control agents; within their containment areas the impact of these agents are being evaluated. Sites that do not present a high risk of spread shall be evaluated on a case-by-case basis for the potential of extirpation and revegetation success⁽²⁶⁾.

All sites of these weeds outside the containment area shall be intensively managed for the purpose of extirpation. The primary means of treatment shall be chemical control but other methods can be used if they are seen to benefit the eradication process. Sites of these weeds outside their containment areas shall

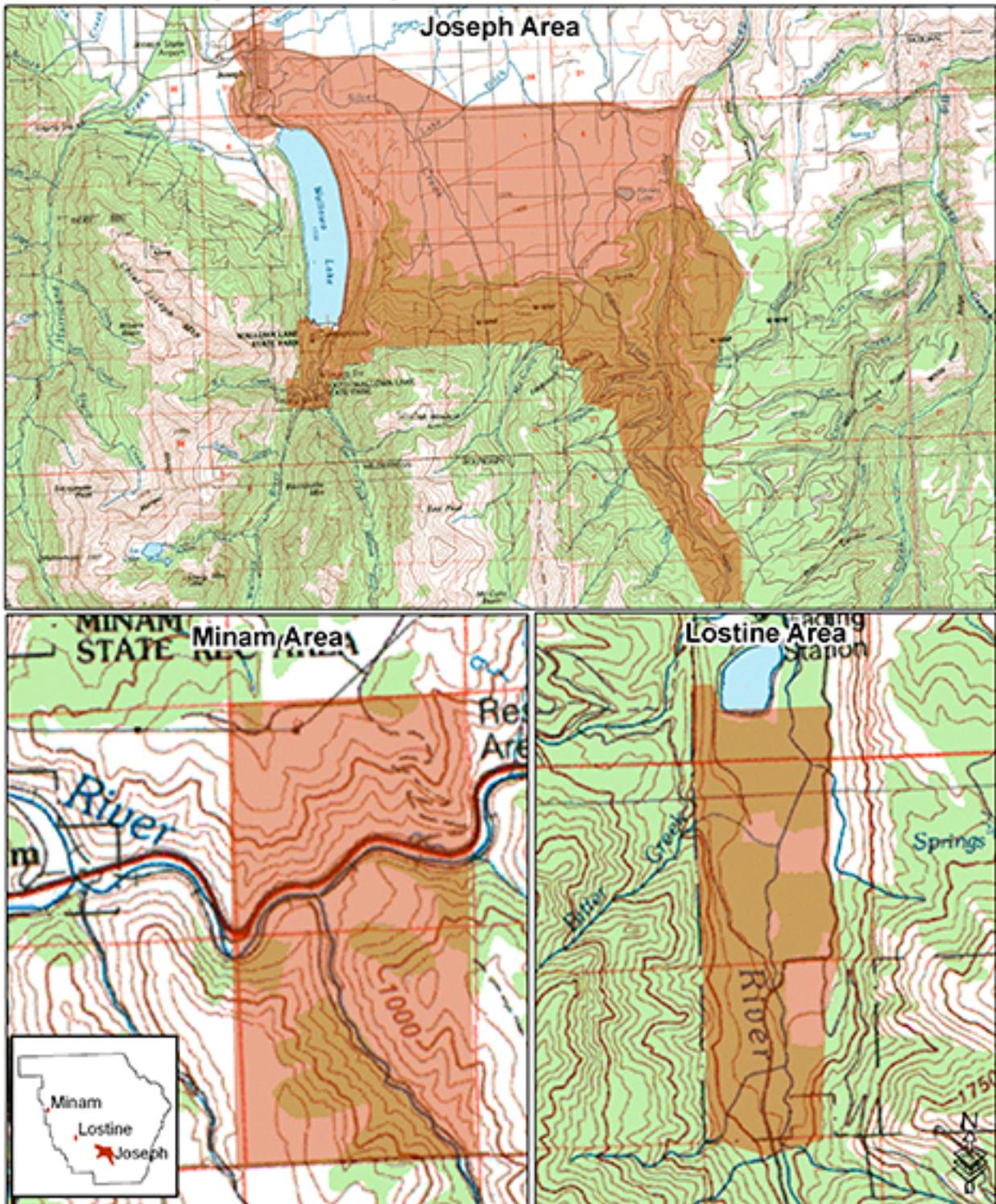
receive the highest priority for cost share and treatment. Weed managers are encouraged to treat these sites themselves to ensure proper treatment or, at least, to provide close inspection of work.

Weed District managers should annually reevaluate containment area boundaries and treatment prescriptions in light of new inventory data or treatment methods. Meadow Hawkweed in particular needs immediate attention due to new inventory and treatment data from 2004 fieldwork.



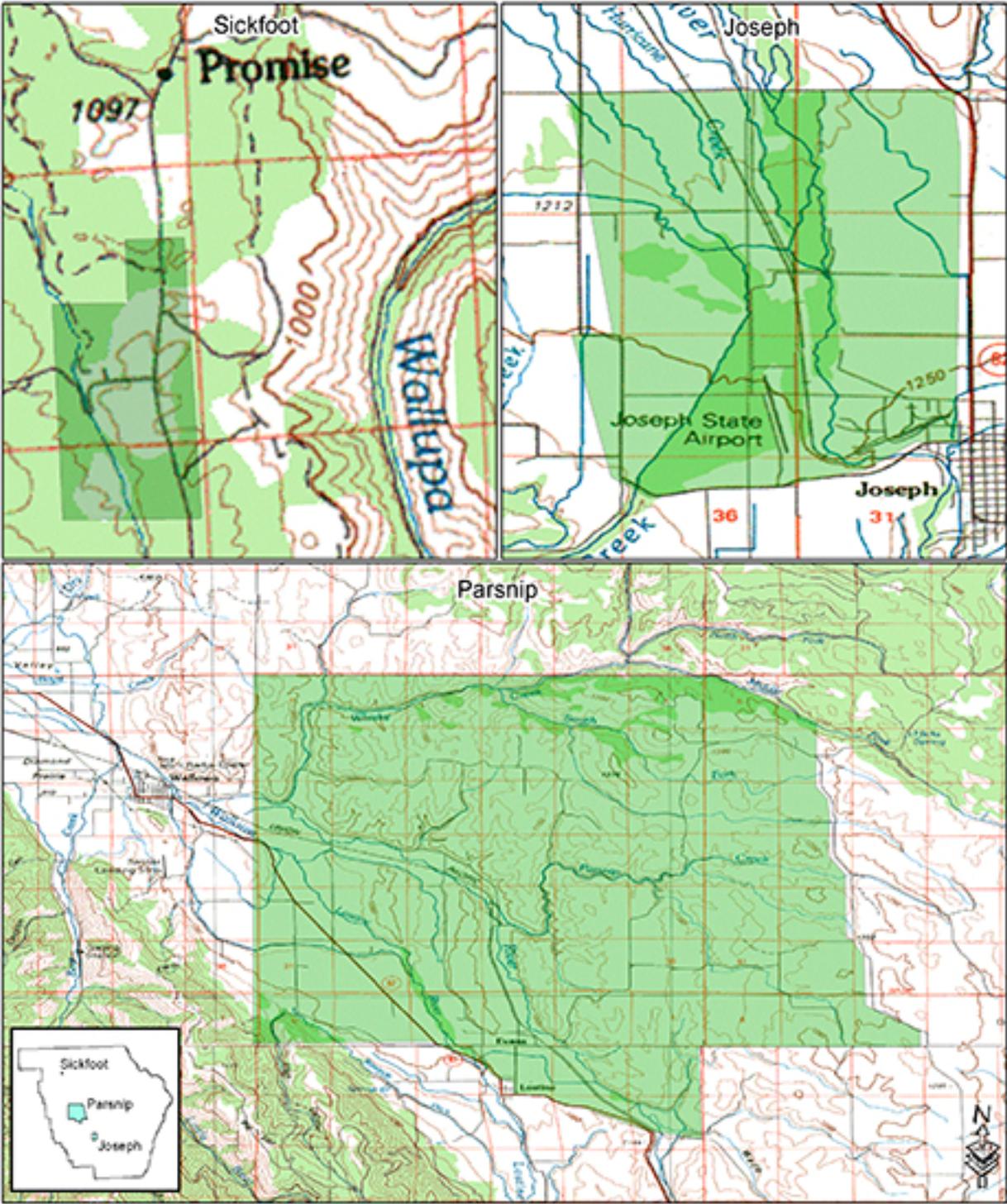
Map 2. Weed Containment Areas in Wallowa County (current 5/2006).

Spotted Knapweed Containment Areas



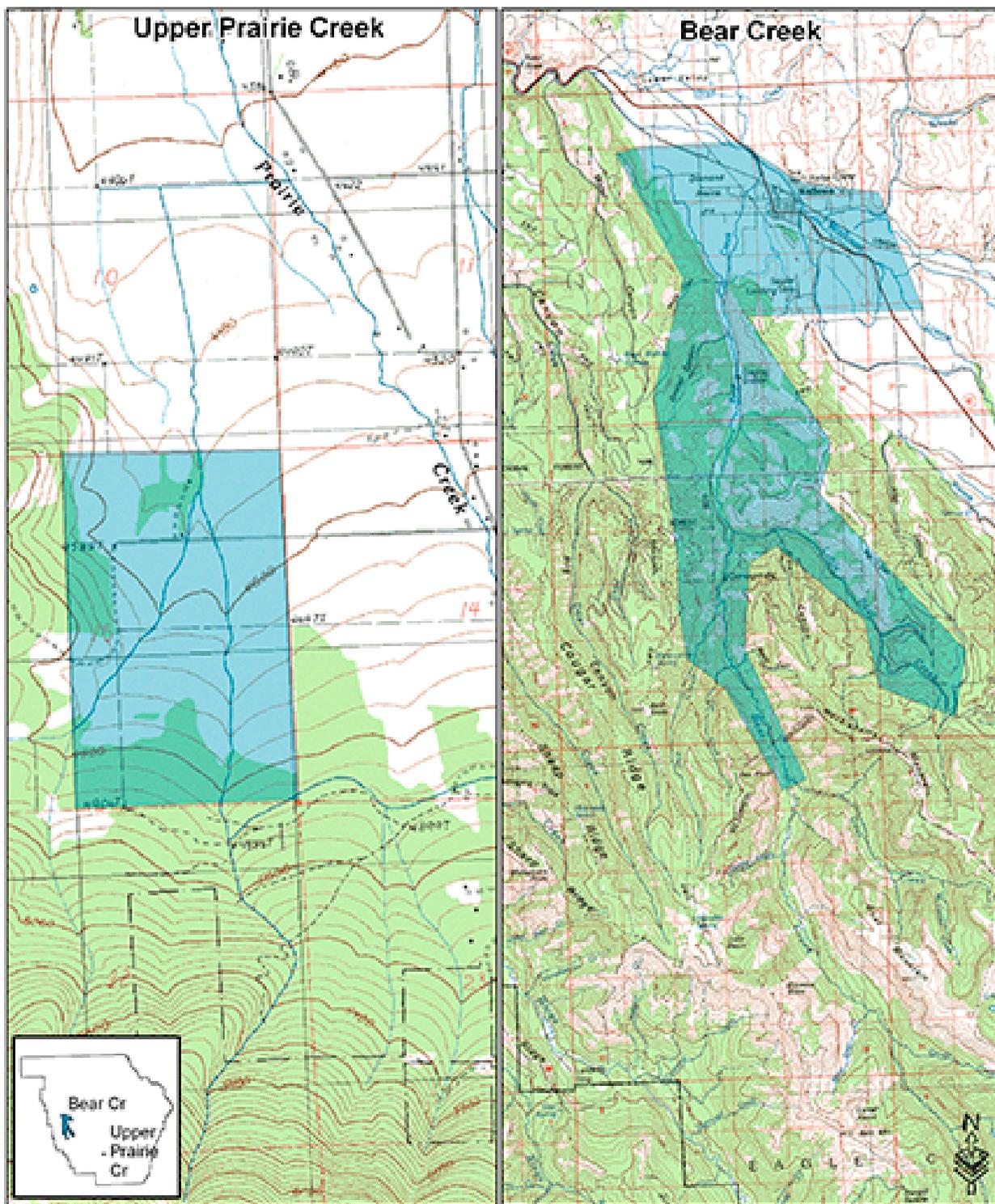
Map 2a. Spotted Knapweed Containment Areas in Wallowa County (current 5/2006).

Leafy Spurge Containment Areas



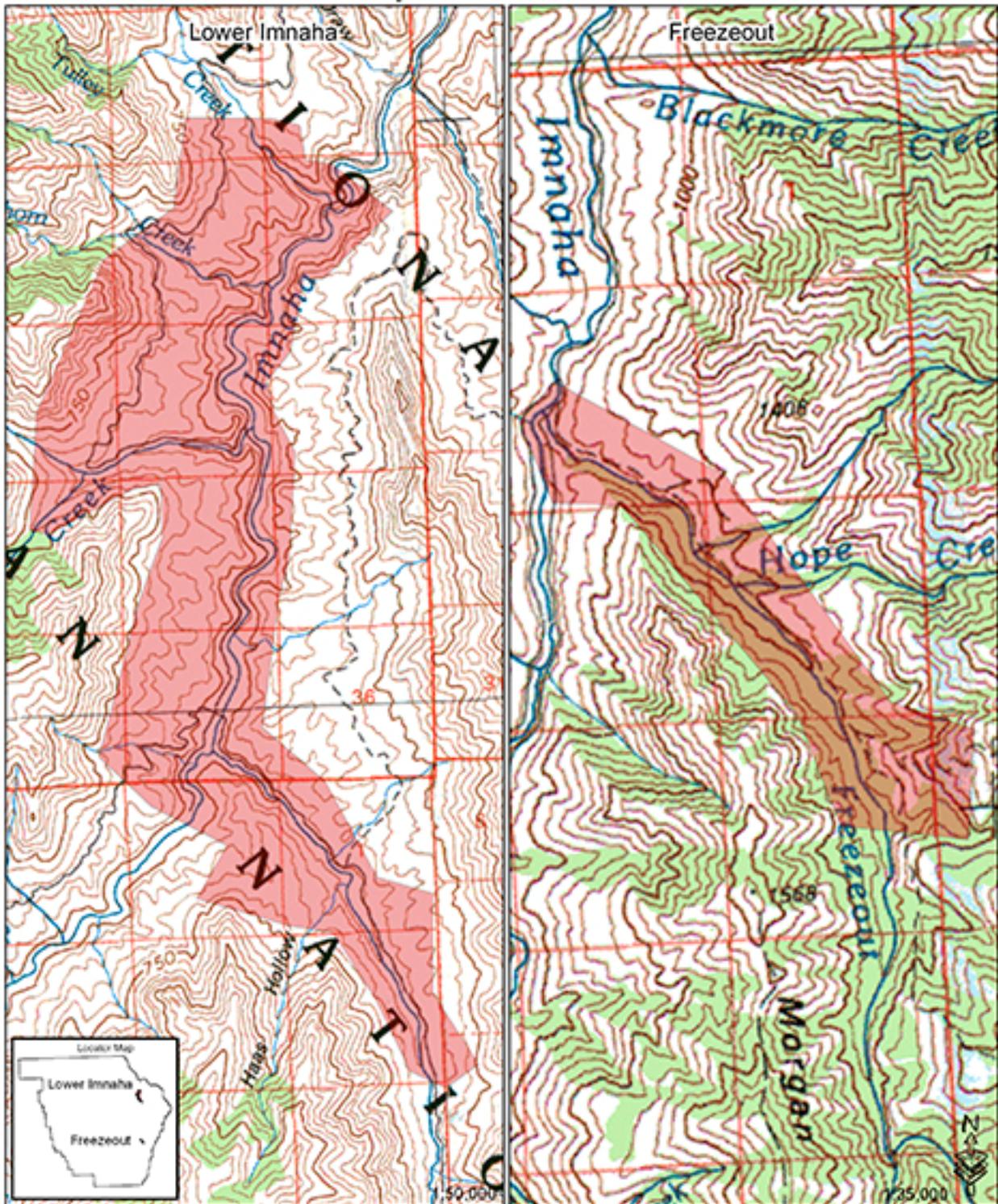
Map 2b. Leafy Spurge Containment Areas in Wallowa County (current 5/2006).

Meadow Hawkweed Containment Areas

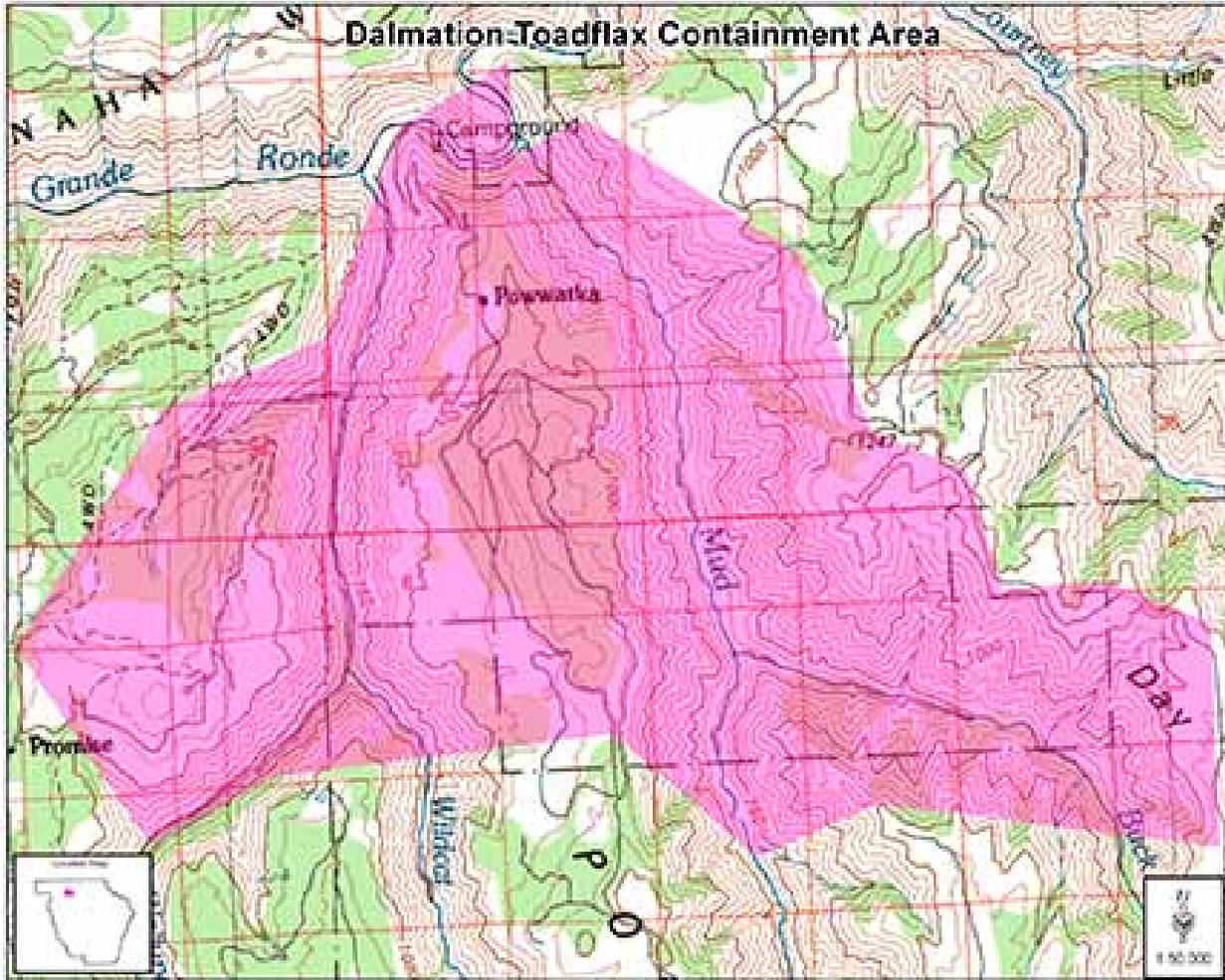


Map 2c. Meadow Hawkweed Containment Areas in Wallowa County (current 5/2006).

Whitetop Containment Areas



Map 2d. Whitetop Containment Areas in Wallowa County (current 5/2006).



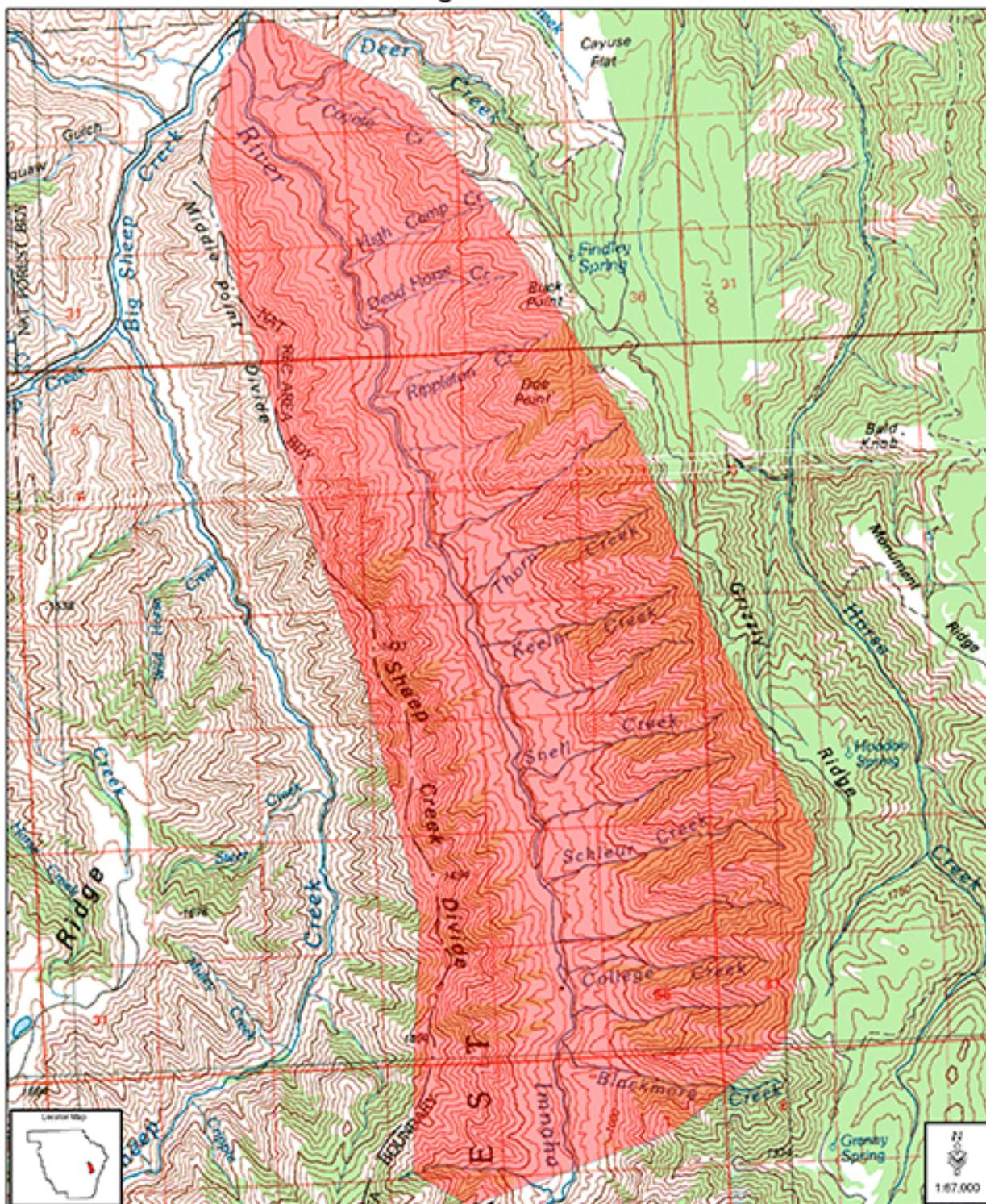
Map 2e. Dalmatian Toadflax Containment Area in Wallowa County (current 5/2006).

Common Crupina and Musk Thistle Like the weeds above, Common Crupina also has an established containment area (managed by the Lower Grande Ronde Noxious Weed Program). It is not thought to be as invasive nor as harmful as the weeds above. Funding has not been secured to date for treatment of this weed.

Musk Thistle has been present on one site in the district for many years. ODA released a biological control agent that seems to keep it in check. However, it has recently been noticed that it is spreading. Therefore, it shall be managed on containment basis hence forward.

Common Bugloss, Yellowstar Thistle, Sulfur Cinquefoil, Poison Hemlock and Medusahead Rye These weeds are very serious invaders that all have a fairly wide distribution within the district but whose populations are centered in particular areas. With the exception of Common Bugloss (see Map 2f), containment area designations are needed for all of these weeds. Intensive mapping efforts are needed ASAP for Sulfur Cinquefoil in particular. Treatment prescriptions for these species need to be informed by the context of the site to other populations. All of these weeds have substantial impacts on the district already. Once containment area designations are in place, all sites outside should be treated with the same principles and diligence as applied to those above (i.e. Leafy Spurge).

Common Bugloss Containment Area



Map 2f. Common Bugloss Containment Area in Wallowa County (5/2006).

Scotch Thistle and *Diffuse Knapweed* Both of these weeds have very wide distributions across the weed district. Eradication of either of these weeds is impossible. Diffuse Knapweed has a suite of biological control agents that are performing extremely well and appear to have the potential to reduce the

population and the impact of weed to a level where it shouldn't be a problem for landowners and managers. Scotch Thistle has no biological control agents. Management of these two weeds will be selective. Both of these weeds are very important to the public because they have been fighting them for years. Managers should work to educate the public as to the relative threat of these weeds compared to other A list species. Cost share will remain available for these two weeds as a matter of public interest.

Yellow Toadflax, Japanese Knotweed and Jointed Goatgrass District managers are just beginning to become familiar with the distribution of these three species. Inventory efforts are a high priority for these species. All three species should be aggressively treated wherever they are found.

B Rated Weeds All of the weeds on the B list will be selectively managed as motivated by restoration, agricultural production, roadside vegetation management or other reasons.

Watch List Weed managers will monitor populations of these species for spread or other issues that might warrant their listing.

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VI. Appendices

Appendix A.
Wallowa County Weed Board (2005)

Position/Member/Address

Term Expires

- | | |
|--|--|
| 1. Mark Porter
PO Box 105
Joseph, OR 97828
432 -0419
mark@wallowaresources.org | Membership being updated at press time |
| 2. Position Vacant | |
| 3. Charlie Warnock
65516 Upper Imnaha Rd
Imnaha, OR 97842
541-577-0501
warnock@eaglecap.net | Membership being updated at press time |
| 4. Mike Hale
64370 Dobbin Rd.
Joseph, OR 97846
541-426-4819
halem@eoni.com | 12/31/06 |
| 5. Ed Jones
83157 W. Dorrance Rd.
Enterprise, OR 97828
541-426-4351 or 426-3667
ejfc@uci.net | 12/12/07 |
| 6. Melvin Lathrop
78080 Leap Lane
Wallowa, OR 97885
541-426-3213
joanlathrop@bmi.net | 12/12/07 |
| 7. Larry Aschenbrenner
612 Mildred Ave
Enterprise OR 97828
541-426-3574
lasch@eoni.com | 12/31/07 |

- 8. Erin Melville** 12/31/07
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Enterprise OR 97828
541-426-4176
emelv@uci.net
- 9. Matt Rippee** 12/31/07
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541-432-8855
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- 10. Skip Royes** 12/31/07
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royesp@oregontrail.net
- 11. Paul Spriggs-Flanders** 12/31/07
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Enterprise, OR 97828
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paul_spriggs-flanders@class.orednet.org

Appendix B. Other Noxious Weed Contacts

Wallowa County Commissioners
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Russ McMartin
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Phil Shephard
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June Colony
Lostine, OR
541-569-2388
grassjune@hotmail.com

Dennis Sheehy
Wallowa, OR
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dsheehy@eoni.com

Matt Zupich
WC SWCD
541-426-4521ext 108
matt.zupich@or.nacdnet.net

Appendix C.

Wallowa County Road Department Management

County road right-of-ways are divided into five vegetation management zones. Zones start at pavement edge and continue to property boundary fence-line. These zones are compatible with Oregon Department of Transportation maintenance definitions. Zones are listed as:

1. Pavement Drainage Zone - mandatory 12” strip from the edge of pavement with no vegetation.
Exception: owner will maintain.
2. Vegetation Free Zone – section up to eight feet from pavement edge of road to ditch line shoulder edge on drivable shoulder where no vegetation should grow.
3. Operational Zone – section up to eight feet from pavement edge of road to ditch line/shoulder edge on drivable shoulder where low growing vegetation should be maintained.
4. Ditch Zone – maintenance of ditches free of obstructions to allow water to flow freely.
5. Special Requirement Zone – control noxious weeds, remove dangerous trees, fence-line requirements, other.

Appendix D.

Oregon State Weed Control Laws

570.500 Legislative findings; need for evaluation. The Legislative Assembly finds and declares that:

(1) Noxious weeds are currently invading agricultural land and natural environments and causing severe production losses, increased control costs, negative impacts on native flora and fauna, decreased utilization of recreational areas and decreased value of farm, range and forest lands. Some of those noxious weeds are poisonous or harmful to humans or animals.

(2) Noxious weed control programs are carried out by private and public landowners, counties and state agencies.

(3) The economic and environmental impacts of noxious weeds in Oregon have not been quantified. Although 92 weeds have been listed by the State Department of Agriculture as restricted noxious weeds or prohibited noxious weeds, only tansy ragwort has been studied for economic and environmental impact. A comprehensive evaluation of other noxious weeds is necessary to determine in which areas, if any, the invasion of noxious weeds is sufficiently severe to justify a declaration by the Director of Agriculture of a weed control emergency.

(4) The overall effectiveness and efficiency of the various noxious weed control programs of this state have never been evaluated. Evaluating and coordinating those programs could reduce the need for the director to declare weed control emergencies. [1999 c.472 §1]

Note: 570.500 was enacted into law by the Legislative Assembly but was not added to or made a part of ORS chapter 570 or any series therein by legislative action. See Preface to Oregon Revised Statutes for further explanation.

570.505 Necessity of eradication of weeds; cooperation in control and eradication. Noxious weeds have become so thoroughly established and are spreading so rapidly on state, county and federally owned lands, as well as on property in individual ownership and in transition to county ownership through tax delinquency, that they hereby are declared a menace to the public welfare. While it is recognized that complete eradication may not be practicable, it hereby is established that steps leading to eradication and control are necessary and that responsibility rests not only on the individual landowner and operator but also on the county, state and federal government, and that the county, state and federal government should cooperate with individual owners in the control and eradication of noxious weed pests. [Amended by 1985 c.621 §1]

570.510 State and counties to control noxious weeds. The state and the respective counties shall control any weeds designated as noxious by the state or the respective counties in any such county on land under their respective ownerships. [Amended by 1985 c.621 §2]

570.515 County governing body may create weed control district; petition for special weed control district. (1) The county governing body of each county may declare the county, or any portion of the lands in a county, a weed control district for the purpose of destroying such weeds and of preventing the seeding and spread of such other weeds and plants as the governing body may for the purposes of ORS 570.515 to 570.600 declare noxious.

(2) If the county is not made a weed control district or if the county weed control district does not include all such weeds or plants desired as included as noxious, interested parties may present a petition for a special weed control district. The petition shall describe the area to be included in the special weed control district and name the noxious weeds to be destroyed or prevented from blooming and producing seed within the district, and must be signed by more than half of the landowners in the area described in the petition who also own more than half of the acreage in the area. Upon presentation of such a petition,

the county governing body shall declare such area a special weed control district and such weeds noxious within the district, in accordance with the petition. [Amended by 1985 c.621 §3]

570.520 Weed inspectors; appointment; duties; compensation. (1) The court shall, upon declaring a weed control district, appoint a weed inspector or inspectors, whose duties it shall be:

(a) To find out if any noxious weeds or plants are being permitted to grow and produce bloom or seed within the district or districts contrary to the provisions of ORS 570.515 to 570.600;

(b) To serve notices;

(c) When necessary to destroy or cut or to supervise the destruction or cutting of the noxious weeds growing or seeding within the weed control district; and

(d) To conduct investigations, approve plans and certify expenditures pertaining to weed control projects pursuant to ORS 570.590.

(2) The person or persons appointed by the county court shall receive for their services reasonable wages, as determined by the county court, for the time actually employed in the performance of duty under ORS 570.515 to 570.600. [Amended by 1975 c.555 §12]

570.525 Notice of district creation and weeds to be controlled. The county court shall, upon declaring a weed control district or districts, cause to be published an official notice describing each district and naming weeds to be destroyed and to be prevented from producing seed within the districts. The notice shall be published in a newspaper or newspapers, not exceeding three in number, serving the districts, in two consecutive issues if weekly, or two times at intervals of one week if daily or semiweekly. Immediately after the last publication of the official notice, the provisions of ORS 570.515 to 570.600 shall be enforced.

570.530 Weed inspector right of entry; service of notice to eradicate weeds; department or district control measures. (1) The weed inspector shall have access to the land within the district.

(2) When the provisions of ORS 570.515 to 570.600 are not being complied with, the weed inspector shall serve a written notice to the owner or occupant of the land. When the weed inspector is unable to serve the notice personally, the weed inspector shall post the notice and two copies thereof in three conspicuous places on the land. The notice shall contain:

(a) The date of service or posting of notice.

(b) The name of the weed or weeds growing on the land, and a statement setting forth that the weeds must be destroyed or must be prevented from producing seed within a specified time of not less than two days or more than 20 days, to be established by the inspector, from the date of service of the notice.

(3) The service of notice as provided in subsection (2) of this section imposes a requirement on the owner or occupant of the land to destroy or prevent the weeds from seeding or spreading during the continuation of ownership or occupancy of the land or until the district is dissolved. A copy of the notice, together with proof of service indorsed thereon, shall be filed with the county court.

(4) Notwithstanding subsections (2) and (3) of this section, ORS 570.520 or 570.535, with permission of the owner or occupant of land, employees of the State Department of Agriculture, or of designated weed control districts, may enter the land to identify noxious weeds and to implement or provide for the implementation of integrated noxious weed control measures, including but not limited to the application of pesticides to the land. The control or eradication of noxious weeds may be conducted with or without charge to the owner or occupant of the land. A notice as described in subsection (2) of this section is not required for the conduct of activities described in this subsection. [Amended by 2001 c.219 §1]

570.535 Owner or occupant to eradicate weeds; disposition of fines. (1) Each person, firm or corporation owning or occupying land within the district shall destroy or prevent the seeding on such land of any noxious weed within the meaning of ORS 570.515 to 570.600 in accordance with the declaration of the county court and by the use of the best means at hand and within a time declared reasonable and set by the court, except that no weed declared noxious shall be permitted to produce seed.

(2) All moneys collected as fines for violation of ORS 570.515 to 570.600 in any county shall be paid into the county treasury and shall become a part of the weed control fund.

570.540 Eradication of weeds on public lands and rights of way. The State Highway Commission, the respective county courts, reclamation districts and municipalities shall destroy or prevent the spread or seeding of any noxious weed within the meaning of ORS 570.515 to 570.600 on any land owned by them or constituting the right of way for any highway, county road, drainage or irrigation ditch, power or transmission line, or other purposes under their respective jurisdictions.

570.545 Eradication of weeds when owner or occupant refuses to do so; request for quarantine; statement of expenses to be filed. (1) If the owner or occupant of the land fails or refuses to immediately destroy or cut the noxious weeds in accordance with ORS 570.515 to 570.600, the weed inspector shall at once notify the district attorney of the county who shall at once take necessary steps for enforcement of ORS 570.515 to 570.600. The county court shall authorize the weed inspector or such assistants as the weed inspector may employ to go upon the land or premises and destroy the noxious weeds or control them in such manner as will destroy all seeds of such noxious weeds; provided, however, that if destruction or control of the weeds on any farm is in the judgment of the county weed inspector impracticable because the weeds may be too far advanced, or if for any other reason the means of control available are unsatisfactory, the weed inspector shall so notify the county court, which shall request the State Department of Agriculture to immediately quarantine any such uncontrolled noxious weed infested farm within the county to prevent the movement of infested crops or of livestock from such farm except under conditions prescribed in the quarantine that will prevent spread of the weeds by such crops or livestock. In all cases where the inspector undertakes to destroy or control noxious weeds, the most effective and practical method, in the judgment of the inspector, and with least injury to the land or crops, shall be used.

(2) Upon the completion of such work the person so appointed and authorized by the county court shall file with the county clerk an itemized statement of the expenses necessarily incurred in the destruction of such weeds, including the wages of the person as provided in ORS 570.520, verified by the oath of the person.

570.550 Statement to be entered on lien docket; recovery of unpaid amount. When the statement of expenses is filed, the county clerk shall cause it to be entered upon a lien docket prepared for that purpose. The amount of the charges and expenses when so docketed shall constitute a first lien upon such lands or premises, except as to taxes. If the charges and expenses are not paid and the lien discharged by the owner or occupant of such lands within 90 days from the date the lien is docketed, the county may recover the expenses in an action at law. [Amended by 1957 c.99 §1; 1985 c.621 §4; 1991 c.459 §437]

570.555 Payment for work. If within 10 days from the date of filing and docketing the lien as provided in ORS 570.545 and 570.550, no objections have been filed thereto, the county court shall pay to the person or persons appointed by the court, as provided in ORS 570.520 (1), out of the general funds of the county, the amount of such lien.

570.560 County tax for weed control fund; expenditure. (1) The county courts of the several counties of this state hereby are required to levy a tax and create a fund to be known as the weed control fund for the control of weeds on county highways and public lands and for cooperation with individuals, state and federal agencies in controlling noxious weeds within weed control districts. The amount estimated by the county court as being sufficient for such purposes may be placed in the county budget and after consideration at the meeting held for the purpose of passing upon the tax levy by the electors of the county, may become one of the items for which expenditure may be made during the ensuing year.

(2) When such a fund is created, it shall be expended under the supervision of the county court in such manner as to effectuate the purposes of ORS 570.515 to 570.600.

570.562 Special assessment. Notwithstanding ORS 570.560, in addition to or in lieu of the tax authorized by ORS 570.560, a county governing body may levy a special assessment based upon benefit to finance weed control activities. All such assessments shall be treated in the same manner as the tax referred to in ORS 570.560. [1985 c.621 §5a; 1989 c.570 §1]

570.565 Dissolution of weed control district; disposition of funds. If in the judgment of the court the enforcement of ORS 570.515 to 570.600 in any county which has been declared a weed control district seems impracticable or likely to work injury to the people of the district, it may after a hearing declare that such weed control district no longer exists. Any special weed control district shall be declared terminated by the county court when a majority of landowners in the district, by petition or by public hearing state that they desire such district terminated for any weeds declared noxious in the district. Any moneys remaining in any fund for weed control shall, after the termination of the district, be credited to the general fund of the county.

570.570 Duty to clean machinery before moving; weed infested residue not to be moved. No person operating or having control of any threshing machinery, clover huller, hay baler, seed cleaning or treating machinery or other machinery shall move said machinery over any public road or from one farm to another without first thoroughly cleaning it. Before moving it, all hay or bundle racks and all other equipment shall be thoroughly swept and cleaned. All hay, straw or other crop residue infested with noxious weeds under the meaning of ORS 570.515 to 570.600 having partially or fully formed seeds shall not be moved from the land on which grown to other lands not infested with any of the weeds in the field from which such crop material came.

570.575 Copy of statute to be posted on machinery; copies furnished by county clerk. (1) No person shall operate any threshing machine, clover huller or hay baler, seed cleaning or treating machinery or any other similar machinery within any duly created weed control district in this state without first having posted in a conspicuous place on such machinery a copy of ORS 570.570 and this section.

(2) The county clerks of the various counties of this state hereby are authorized and directed to have printed a sufficient number of copies of ORS 570.570 and 570.575 and shall deliver such copies upon request to owners or operators of such machinery.

(Cost-Share Assistance Grants)

570.580 Cost-share assistance grants for weed control; application. Any person owning or occupying land within a weed control district or special weed control district who conducts a weed control project in accordance with the provisions of ORS 570.520 and 570.580 to 570.600 may apply to the county court or commission for a cost-share assistance grant. [1975 c.555 §10]

570.585 Cost-share assistance grants for weed control; source of expenditures; limit on grants. (1) The county courts of the several counties of this state hereby are required to provide cost-share assistance grants to persons owning or occupying land within such counties who conduct a weed control project in accordance with the provisions of ORS 570.520 and 570.580 to 570.600. Expenditures by any county court or commission for cost-share assistance grants shall be made from the county's weed control fund pursuant to ORS 570.560.

(2) In any fiscal year, the amount of cost-share assistance to any person eligible for such assistance under ORS 570.580 and 570.590 shall be an amount equal to, but not exceeding, 50 percent of the actual cost of the eligible person's weed control project. [1975 c.555 §9]

570.590 Eligibility for grants. No person shall be eligible for a cost-share assistance grant under

ORS 570.520 and 570.580 to 570.600 unless:

- (1) A weed control inspector has:
 - (a) Conducted a field inspection of the weed control site;
 - (b) Approved the eligible person's plan for implementing a weed control project; and
 - (c) Certified that specific expenditures are appropriate for implementation of the project.
- (2) The eligible person has made certified expenditures for the purpose of implementing an approved weed control project. Adequate proof of such expenditures shall consist of:
 - (a) Receipts, invoices or other evidence indicating the amount and cost of the project; and
 - (b) Such other weed control information as the county court or commission may require. [1975 c.555 §11]

570.595 Department funds for grants; reports by county. (1) Subject to ORS 291.230 to 291.260, the State Department of Agriculture may distribute in the manner prescribed in subsection (3) of this section to each county court an amount equal to 50 percent of the amount of cost-share assistance grants actually provided by the county court to eligible persons pursuant to ORS 570.580 to 570.590.

(2) Any funds available and received by any county court under this section shall be placed in the county's weed control fund and shall be expended by the county court to carry out the purposes of ORS 570.520 and 570.580 to 570.600.

(3) Each county court receiving funds under this section shall report to the department, at such times as the department shall require:

(a) The total number of eligible owners who have received cost-share assistance grants under ORS 570.580; and

(b) Any other weed control information the department shall require to carry out the purposes of ORS 570.520 and 570.580 to 570.600. The department shall make any necessary adjustments in the amounts due each county court at such times as the department determines appropriate in order to avoid overpayment. [1975 c.555 §13]

570.600 Financial assistance by department for weed control; limit on county responsibility. (1) The State Department of Agriculture may provide financial assistance to counties to promote the implementation of noxious weed control projects.

(2) Notwithstanding any other provision of ORS 570.520 and 570.580 to 570.600, a county court is not required to perform any duty, function or power provided in ORS 570.520 and 570.580 to 570.600 unless the department provides financial assistance to the county pursuant to subsection (1) of this section. [1975 c.555 §§14,15]

Appendix E.

Potential Funding Sources

BMEI & RMEF: Blue Mt. Elk Initiative, Rocky Mt. Elk Foundation - <http://www.fs.fed.us/pnw/bmnn/initiatives.htm#BMEI>

BPA: Bonneville Power Adm.

DU: Ducks Unlimited – <http://www.ducks.org/>

FNAWS: Foundation for North American Wild Sheep – <http://www.fnaws.org/educ.html>

GRMW: Grande Ronde Model Watershed – <http://www.fs.fed.us/pnw/modelwatershed/>

MDF: Mule Deer Foundation – <http://www.muledeerfoundation.org/>

NAWCA: North American Wetlands Act – <http://birdhabitat.fws.gov/NAWCA/ussmallgrants.html>

NFWF: National Fish and Wildlife Foundation – <http://www.nfwf.org/>

NWF: National Wildlife federation – <http://www.nwf.org/wildalive>

NWTF: National Wild Turkey Federation – <http://www.nwtf.org>

OHA: Oregon Hunters Association – <http://www.oregonhunters.org/>

OW: Oregon Wetlands – <http://wetlands.dfw.state.or.us/>

OWEB: Oregon Watershed Enhancement Board – <http://www.oweb.state.or.us/>

OWHF: Oregon Wildlife Heritage Foundation – <http://www.owhf.org/>

QU: Quail Unlimited – <http://www.qu.org/>

REI: Recreational Equipment Incorporated – <http://www.rei.com/aboutrei/grants02.html>

R6CCS: USFS Region 6 Challenge Cost Share –

RGS: Ruffed Grouse Society – <http://ruffedgrousesociety.org/>

SRF: Special Recovery Fund – <http://www.nfwf.org/keepthewildalive/speciesrecoveryfund.cfm>

TF: Turner Foundation – <http://www.turnerfoundation.org/>

Title II: RAC/NRAC

Title III: Wallowa County Board of Commissioners

**Please see annual operating plan for this years funding proposals

Appendix F.

Competitive Characteristics of Weeds

1. Germination requirements fulfilled in many environments
2. Discontinuous germination (internally controlled) and longevity of seed
3. Rapid growth through vegetative stage to flowering
4. Continuous seed production for as long as growing conditions permit
5. Self-compatibility but not complete autogamy (self-fertilization) or agamospermy (asexual reproduction)
6. Cross-pollination by unspecialized visitors or wind
7. Very high seed output in favorable environmental conditions
8. Production of some seed in wide range of environmental conditions
9. Adaptations for short and long distance dispersal
10. If perennial, vigorous vegetative reproduction or regeneration from plant fragments
11. If perennial, brittleness so as not to be pulled easily from the ground and ability to compete inter-specifically by special means, i.e. rosettes, choking growth, and allelochemicals.

Appendix G.

An Eradication Plan for Plant Invasion

From: (Zamora, D.L., D.C. Thill, and R.E. Eplee. 1989. An eradication plan for plant invasions. Weed Technol. 3:2-12.)

Why is a plan needed?

To counteract increasing number of invasions by new plant species and cost of resulting control program.

Plan should include:

1. early detection of new species
2. assessment of invader's noxious potential
3. surveys
4. understanding of invader's biology
5. eradication technology
6. integration of steps 1-5 into an eradication strategy to eliminate the species and vegetate the invasion site

Early detection can minimize spread if contained quickly and is most effective at the local level.

1. train personnel to ID pest, and increase roadside surveys
2. disturbed habitats are most susceptible to invasion
3. most aliens found along roadsides, and frequency decreases as distance from roadside increases
4. closed tree canopies and higher elevation = fewer invaders

Noxious potential: once detected, a pest's noxious potential must be evaluated for:

1. interactions with other species, including activities by humans and animals
2. climatic characteristics in native country
3. history in other countries
4. similarities to other weeds

Climatic characteristics

- analogous agro-climatic areas (similar seasonal temp., ppt. patterns, growing season)
- however, don't exclude atypical climates because the new pest may lack natural enemies and competitors, and invader may be polyploid

History of spread and distribution

- helps assess threat
- wide vs. limited distribution
- spread vs. genetic variation within invading species

Similarities to weeds

- taxon (Poaceae, Asteraceae)
- seed morphology for dispersal
- germination range

Surveys: detection, delimiting, appraisal – eradication success depends on survey accuracy and considering viability of seeds in soil seed bank

Methods: detection and delimiting – questionnaire (descriptive bulletin) – not reliable, but used to supplement other methods

- plant ID can be difficult
- survey efficiency unknown

- owners / users difficult to locate
- response time limited
- takes a lot of time
- soil surveys are difficult obtain a representative sample
- site examination for invader (walking, aircraft, ATV, horses, etc.)

Tactics – where to survey

- work progressively outward from known foci
- commercial channels (roads, trails, rivers, gravel-pits, log landings, etc.)
- ID invading plant's habits and plant association
- focus on high probability areas, establish major boundaries through surveys (appraisal)
- requires pessimism, training, good data collection (GPS/GIS), plant location, plant population, site characteristics

Invader's Biology: need to know about –

- life cycle most vulnerable to control (vital rate or growth stage)
- seedbank longevity (reproductive or vegetative structure longevity)
- strategies to stop spread

Life-cycle probability of surviving to each successive stage

- look for mortality periods, apply eradication treatments at this time
- for annuals, seedling stage is usually best

Seedbank – eradication not complete until All propagules are eliminated from soil

- Cohen's model to predict seed number for annuals "after 1 yr under natural conditions"
 - (1) fraction of seeds that germinate
 - (2) fraction of seeds that decay
 - (3) seed production / surviving seedlings that reproduce
 - (4) eradication efficiency
- the model does not consider seedbank over time , need to add information each year
- model can predict years required to deplete propagules

Strategies to stop spread – determines area requiring survey, quarantine, or treatment. Must consider:

- population growth rate = rate of change in number of individuals (single species growth rate can be exponential)
- spread rate = rate of change in distribution of individuals (advancing front)
 - i) greater mobility = faster population growth rate
 - ii) multiple foci = faster spread and population growth rates compared to centralized population
 - iii) increase in number of foci, increase area occupied per unit time
 - iv) remnant population escaping treatment can increase faster than single initial focus
 - v) high mobility, many scattered foci = big trouble; need to act fast
- dispersal vectors
 - i) copious seed producers attract many animals
 - ii) human activity responsible for quickest and most distant spread
 - iii) livestock = slow, local spread
 - iv) heavy seed = solid dispersal front vs. lighter, wind dispersed seed = diverse front of scattered individuals

- probability of establishment
 - i) ecological amplitude
 - ii) birthrate must exceed death rate for successful establishment

Eradication Technology: goal for eradication is different from goal for weed control – need much higher efficacy

- must be developed for different locations and strategies of plant's life cycle
 1. location – maximum efficacy and safety
 - i) cultural methods near residence or water
 - ii) chemical treatments include herbicides, fumigants, germination stimulants
 - iii) other methods = hand pulling, thermal
 2. life cycle stage – apply at most susceptible stage
 - i) depends on non-target vegetation
 - ii) avoid selecting phenotypes that escape treatment

Eradication Strategy: stop spread, prevent reproduction, deplete propagules from soil

- treatment location – must be strategically located and cover enough area to stop spread
- establish priorities based on probability of population spreading
 - 1st – eradicate satellite infestations
 - 2nd – borders of large infestations
 - 3rd – control population growth in large areas, i.e. need to determine MINIMAL treatment area – uninfested buffer zone on periphery large enough to encompass area plant can invade in a given period of time

Preventive Weed Management

- most basic of all weed control methods = prevention
 - i) slow introduction and spread of weeds
 - ii) produce weed-free seed
 - iii) clean weed infested seed
 - iv) quarantine and regulation of contaminated crop seed
- planting contaminated crop seed IS STILL a major way of spreading noxious weeds
- largely preventable - mostly common sense
- economic thresholds vs. prevention (control of newly introduced species)
- prevention programs usually require enactment and enforcement of laws and regulations

Farm management practices

- lean crop seed (cereal and soybean)
- smother crops – highly competitive , make sure they don't develop into weed problem
- crop rotation –effect life cycles

Clean farm equipment²

- harvesting, mowing, hay baling, tilling, and earth moving
- combine harvester = nearly perfect device to spread weed seed
- jointed goat grass (KS → NE)
- on average 59% of weed seed removed with combine, 39% shed to soil 2% removed with baled straw

² The Weed Board also recommends cleaning of logging and rock-pit equipment as well.

Animal feed and manure

- sheep manure – 650,000seeds/A
- weed screenings
 - i) grinding vs. not grinding
 - ii) coarse vs. fine grinding
 - iii) heat treatment
- ensiling seeds
 - i) increase or decrease seed germination
 - ii) depends on species and time of fermentation
 - iii) ensiling + rumen digestion
- livestock confinement time (10 to 12 days)

Weed free irrigation and drainage water

137 different species in irrigation laterals and 77 in Columbia River (690 to 6,070 seeds/A)

Weeds with wind-borne seeds

- i) keep fence rows and waste areas clean
- ii) vegetation barriers
- iii) fences – Russian thistle

Handling weed-infested crops

- i) need plan based on prevention not control
- ii) weed control should be used to provide final measure of crop protection, not the only measure – which is often the case today
- iii) prevent as much seed or vegetative propagule production as possible

The laws

- Federal Seed Act
- state seed laws
- state weed laws
- Federal Noxious Weed Act
- county or local weed laws

Appendix H.

Wallowa County Weed Free Forage Inspection Program

Introduction

There is a growing demand in North America for the use of certified noxious weed free forage and straw as a preventive program to limit the spread of noxious weeds. This voluntary inspection program is designed to assure that forage and straw sold with proper inspection identification meets minimum standards designed to limit the spread of noxious weeds. Buyers are provided assurance that forage and straw, inspected through this program, meet these minimum standards.

These inspection standards comply with and in some cases exceed the North America Weed Free Forage Certification Standards developed by the Regional Weed Free Committee of the North American Weed Management Association. The North America Weed Free Forage Committee has established minimum standards to allow uniform participation by states and provinces in the program. Forage and straw inspection under the program with proper markings attached will be eligible to be shipped into restricted areas where only forage and straw inspected under the North America Weed Free Forage Certification Standards can be used.

The various inspections that are an integral part of this program minimize the opportunity for misleading or fraudulent actions on the part of the applicants participating in the program. However, the production and distribution of inspected material depends on the integrity of those participating in the program.

It is the responsibility of every member of the Wallowa County Weed Free Forage Inspection Program to abide by the rules, adhere to the standards, and report irregularities or violations.

Field Inspection Application

Applicants desiring to have their forage and/or straw inspected must apply to the Wallowa County Inspection Program on an application form supplied by the County. Forms are available upon request from:

Wallowa County Extension Services
668 NW First
Enterprise, Oregon 97828
541-426-3143

Applications must be received ten (10) working days prior to cutting. Late applications may result in the field inspection not being made.

A field is defined as the area occupied by one crop, covered by one inspection report and not divided by streams, public roads, other crops, or other barriers that materially increase the difficulty of inspection. If the inspected forage or straw field is also being inspected for certified seed production, indicate the corresponding seed production field number(s) on the application form.

Field Inspections

To be eligible for forage or straw inspection, fields must be inspected by the County Weed Free Forage Inspector before harvest. A crop that is harvested prior to inspection is not eligible for certification. It is the applicant's responsibility to ensure that the crop has been inspected before harvest.

Field inspection is a thorough examination of the forage or straw production site to confirm compliance with the inspection standards. The inspector will make a visual inspection of the field and entire field border. County inspection procedures will follow the guidelines established by the North America Weed

Free Forage Standards. Any condition(s) which are apt to make inspection inaccurate or bring the certification process into disfavor shall be cause for rejection.

Field Standards

Forage and straw shall be free of those noxious weeds and undesirable plant species identified in Appendix H-1.

1. In Wallowa County, forage and straw fields shall be inspected by the County Weed Free Forage Inspector.
2. Forage and straw shall be inspected in the field of origin. The field shall include the surrounding ditches, fence rows, roads, easements, grass waterways, or a buffer zone surrounding the field.
3. The field must be inspected by County Inspector prior to cutting or harvesting.
4. Forage which contains any noxious weeds, or undesirable plant species, as identified in Appendix H-1, may be certified if the following requirements are met:
 - a) Field upon which the forage was produced was treated to prevent seed formation or seed ripening to the degree that there is no danger of dissemination of the seed, or any injurious portion thereof from such noxious weeds, or undesirable plant species, or the propagating parts of the plant are not capable of producing a new plant.
 - b) Noxious weed(s) or undesirable plant species was treated not later than rosette to bud stage, or boot stage for perennial grass species classified as weeds, prior to cutting or harvesting.
 - c) Treatment method can include but is not limited to:
 - burning
 - mowing, cutting or rouging
 - mechanical methods
 - chemicals.
5. An Inspection Certificate shall be issued by Wallowa County indicating that the above requirements have been met based upon field inspection.

Maintaining Identity of Harvested Forage

The applicant must keep accurate records of the amount of forage or straw harvested from each field including where the forage or straw is stored after harvest. The following records must be maintained:

1. The number and average weight of bales harvested;
2. The exact location where bales are stored;
3. Date of harvest;
4. Field number and location of the field where the product was produced;
5. Copies of all certification documents; and
6. Current inventory records.

Certification Markings

Inspection tags and/or Transit Certificates will be issued for eligible forage or straw, by Wallowa County Extension Office, upon request by applicant. Applicants may request inspection tags and/or Transit Certificates by declaring the amount of forage or straw harvested on the Inspection Certificate.

Appendix H-1: Regional Designated Noxious Weed and Undesirable Plant List

The following weeds have been designated as noxious or undesirable in the Regional Weed Free forage Certification Standards:

1. Absinth Wormwood (<i>Artemisia absinthium</i>)	28. Perennial pepperweed (<i>Lepidium latifolium</i>)
2. Bermudagrass (<i>Cynodon dactylon</i>)	29. Perennial sorghum (<i>Sorghum almum</i>)
3. Buffalobur (<i>Solanum rostratum</i>)	30. Perennial sowthistle (<i>Sonchus arvensis</i>)
4. Canada thistle (<i>Cirsium arvense</i>)	31. Plumeless thistle (<i>Carduus acanthoides</i>)
5. Common burdock (<i>Arctium minus</i>)	32. Poison hemlock (<i>Conium maculatum</i>)
6. Common crupina (<i>Crupina vulgaris</i>)	33. Puncturevine (<i>Tribulus terrestris</i>)
7. Common Tansy (<i>Tanacetum vulgare</i>)	34. Quackgrass (<i>Agropyron repens</i>)
8. Dalmation toadflaz (<i>Linaria dalmatica</i>)	35. Rush skeletonweed (<i>Chondrilla jucea</i>)
9. Diffuse knapweed (<i>Centaurea diffusa</i>)	36. Russian knapweed (<i>Centaurea repens</i>)
10. Dyers woad (<i>Isatis tinctoria</i>)	37. Scentless chamomile (<i>Matricaria maritima</i>)
11. Field bindweed (<i>Convolvulus arvensis</i>)	38. Scotch broom (<i>Cytisus scoparius</i>)
12. Hemp (Marijuana) (<i>Cannabis sativa</i>)	39. Scotch thistle (<i>Onopordum acanthium</i>)
13. Henbane, Black (<i>Hyoscyamus niger</i>)	40. Silverleaf nightshade (<i>Solanum elaeagnifolium</i>)
14. Hoary cress (<i>Cardaria draba desu L.</i>)	41. Skeletonleaf bursage (<i>Ambrosia tomentosa</i>)
15. Horsenettle (<i>Solarum carolinense</i>)	42. Spotted knapweed (<i>Centaurea stoebe L.</i>)
16. Houndstonge (<i>Cynaglossum officinale L.</i>)	43. Squarrose knapweed (<i>Centaurea virgata</i>)
17. Johnsongrass (<i>Sorghum halepense</i>)	44. St. Johns wort (<i>Hypericum perforatum</i>)
18. Jointed Goatgrass (<i>Aegilops cylindrica</i>)	45. Sulfur cinquefoil (<i>Potentilla recta</i>)
19. Leafy spurge (<i>Euphorbia esula</i>)	46. Syrian beancaper (<i>Zygophllum fabago L.</i>)
20. Purple Loosestrife (<i>Lythrum salicaria L.</i>)	47. Tansy ragwort (<i>Senecia jacobaea</i>)
21. Matgrass (<i>Nardus stricta</i>)	48. Toothed supuge (<i>Euphoria dentata</i>)
22. Meadow knapweed (<i>Centaurea seula</i>)	49. Wild oats (<i>Avena fatua</i>)
23. Medusa head (<i>Taeniatherum caput-medusae</i>)	50. Wild proso millet (<i>Panicum millicium</i>)
24. Miliun (<i>Milium vernale</i>)	51. Yellow hawkweed (<i>Hieracium pratense</i>)
25. Musk thistle (<i>Carduus nutans</i>)	52. Yellow starthistle (<i>Centaurea solstitialis</i>)
26. Orange hawkweed (<i>Hieracium auranthiacum</i>)	53. Yellow toadflax (<i>Linaria vulgaris</i>)
27. Oxeye daisy (<i>Chrysanthemum Leucanthemum</i>)	

Appendix H-2: Responsibilities

Applicant's responsibilities:

1. Submit the application for field inspection ten (10) working days prior to cutting, for forage.
Application must include:
 - a. a map indicating location of field,
 - b. indication of whether the field is being applied for under the seed certification program,
 - c. the field inspection fee, and
 - d. approximate cutting date.
2. Prepare the field for inspection. Treat noxious weeds and undesirable plant species (see Appendix H-1) adjacent to the production field as described in the standards. If noxious weeds in adjacent areas are not treated, a 10-foot wide isolation/buffer strip must be established by mowing or cultivation.
3. All fields must be inspected prior to harvest by Wallowa County Inspector to qualify for certification. Notify Wallowa County Weed Free Forage Inspector if your fields are within a week of cutting and you do not have an inspection report indicating that the field has been inspected.
4. If the field meets certification standards, proceed to Step 6. If the field does not meet the standards, proceed to the Re-inspection Procedures below.
5. Maintain the identity of all forage or straw harvested from fields meeting the certification standards. The forage or straw must be stored separate from uncertified forage or straw. A written record of certified material stored at this site must be maintained.
6. Request transportation certificates by submitting the number and size of the packages/bales from each eligible field to the Extension Office.
7. Attach the certification tags provided by Wallowa County to eligible forage or supply purchaser with transit certificates.
8. Prior to harvest, members should clean all equipment before entering a field.

Re-inspection Procedures: (To be used when a portion of field does not meet the certification standards - i.e. noxious weeds in the field and/or lack of required isolation/buffer strips).

1. Make the required correction(s) as indicated on the inspection report by the Weed Inspector.
2. Contact the Weed Inspector for re-inspection to verify that the required corrections have been completed. A re-inspection fee will be charged.
3. Proceed to Step 6 above.

Wallowa County and Extension Office Responsibilities:

1. Oregon State University Extension will supply each grower with instructions and materials for making applications for field inspections;
2. Wallowa County will provide a weed inspection.
3. OSU Extension will issue labels for product that qualifies under the certification standards.
4. OSU Extension will maintain records including field applications, inspection reports and the serial numbers of tags issued.

Appendix H-3: Wallowa County Forage Inspection Program

Noxious Weed Free Forage and Straw Field Inspection Procedures

Introduction

The purpose of the Noxious Weed Free Forage and Straw (NWFF&S) certification program is to prevent the spread of noxious weeds. Wallowa County standards meet or exceed standards developed by the Regional Weed Free Forage Committee of the North American Weed Management Association. These standards were established to assure uniformity between states and provinces in the development and implementation of individual noxious weed free forage and straw programs. The Regional Weed Free Forage committee has established a list of noxious weed seeds and propagating materials that are not permitted in any material that is to be entered into the program. NOTE: See Appendix H-1. In addition to these weeds Wallowa County is including the following:

Common Name	Scientific Name
Night flowering catch fly	<i>Silene noctiflora</i>
White campion	<i>Silene alba</i>
Redroot Pigweed	<i>Amaranthus retroflexus</i>
Jim Hill Mustard	<i>Sisymbrium altissimum</i>
Tansymustard, pinnate	<i>Descurainia pinnata</i>
Netseed lambsquarter	<i>Chenopodium berlandieri</i>
Shepard's-purse	<i>Capsella bursa-pastoris</i>
Field pennycress	<i>Thlaspi arvense</i>
Prickly lettuce	<i>Lactuca serriola</i>
Fiddleneck tarweed	<i>Amsinckia intermedia</i>
Common mallow	<i>Malva neglecta</i>
Common mullein	<i>Verbascum thapsus</i>
Common teasel	<i>Dipsacus fullomum</i>
Black nightshade	<i>Solanum nigrum</i>
Hairy nightshade	<i>Solanum sarrachoides</i>
Catchweed bedstraw	<i>Galium aparine</i>
Green Foxtail	<i>Setaria viridis</i>
Smartweed (sp)	<i>Polygonaceae</i>
Curly dock	<i>Rumex crispus</i>
Western salsify	<i>Tragopogon dubius</i>
Wild buckwheat	<i>Polygonum convolvulus</i>
Kochia	<i>Kochia scoparia</i>
Barnyardgrass	<i>Echinochloa crus-galli</i>

Inspector Certification

As field inspectors, it is required that you read and understand the specific standards and inspection procedures for this program. An inspection training session will be required each year.

Applications

Field inspection applications for noxious weed free forage and straw fields will be assigned to the field inspector by the field supervisor at the earliest possible date. It is the responsibility of the field inspector to complete the field inspection before harvest. It is the responsibility of the applicant to notify Wallowa County if they are ready to harvest and the field has not been inspected. Any field not inspected before harvest will be ineligible for the program.

Inspections

Inspections of NWFF&S fields consist of identifying noxious weeds in the field and adjacent areas of the fields such as other fields, road ditches, fence rows, waterways, rock or brush piles or other areas. All inspections for this program must be accurate and thorough.

When to Inspect

For materials to be eligible for the NWFF&S certification program, all field inspections must take place prior to harvest. It is recommended that all forage fields be inspected within ten (10) days of harvest. Fields in which straw will be harvested can be inspected two weeks prior to harvest or when more appropriate prior to baling. If other corrections need to be made, this time will allow the applicant to make the correction prior to re-inspection.

Walking the Field

The procedures used for walking NWFF&S fields are different from those methods used for walking fields for certified seed inspection. There shall be a minimum of two entry points per field. There shall be a minimum of one entry point per each 10 acres. Each point of entry shall be at least 150 feet into the field, and each additional 150 feet traveled shall constitute an entry point. Travel shall be uninterrupted, proceeding through the field being inspected. The entire field border shall be walked or driven. Fields shall be inspected within 10 days prior to harvest. An inspector may not inspect fields of which said inspector has ownership or financial interest. If there is a heavy infestation of weeds other than those on the noxious weed list, the inspector should make note of it in the comment section of the inspection certificate.

Determining Field Status

If any noxious weeds are found in the field during the field inspection, the field must be rejected. The field may be re-inspected at a later date, however in order for the field to pass a second inspection, the applicant must make the necessary correction to eliminate the cause for rejection. NOTE: If fields being inspected for the NWFF&S program are also being inspected for certified seed, field reports must be completed and field status must be determined for each individual program. A field may meet the criteria of one program but not another.

Tolerance

1. No noxious weeds on Wallowa County's "A" list
2. No weeds on NAWMA list with reproductive parts.
3. No weeds found on NAWMA list that would cause quality impairment
4. No undesirable plants in a form to cause quality impairments.

Grades of Wallowa County weed free forage

Premium grade ---meets all 4 criteria above

Reclamation Grade --- meets criteria 1 & 2 above

Field Corrections

Options are to cut, mow or avoid the infested areas at harvest time. If the area has been cut, mowed or avoided at harvest time, the areas must also be left undisturbed so the inspector can verify, during the re-inspection, that the infested areas were not harvested.

Field Borders

Areas adjacent to fields inspected under the NWFF&S certification program are required to be free of noxious weeds. Adjacent areas include: other fields, road ditches, waterways, fence lines, rock or brush piles or any other areas that may serve as a source of noxious weed contamination. When adjacent areas contain noxious weeds, a 10-foot buffer zone must be established by mowing, cutting, cultivating or

spraying between the production field and the noxious weed infested area. Any borders not maintained in accordance with the standards at the time of field inspection must be rejected. The applicant will have the opportunity to make the border correction. A re-inspection will be required and additional fees paid.

Border Corrections

If the field is rejected due to non-maintenance of adjacent areas, the applicant has the option of establishing a buffer zone to separate the field to be harvested from the source of noxious weed infestation. This buffer zone must be a minimum of 10-feet wide and may be established by mowing, cutting, cultivating or spraying. The buffer zone must be established in a manner that allows the inspector to check the area at the time of re-inspection to verify that no material from the buffer zone was harvested as certified material. It is recommended that 2 rows be cut before inspection (this is not required but will speed the inspection process and aid in assuring proper borders are maintained.)

Storage

The storage area is to be a weed free environment or the producer must not include the bottom bales when shipping.

Warranty

The Wallowa County Hay/Straw inspection program expressly represents that it has acted in accordance with those standards and procedures established for hay/straw inspection in Wallowa County. The issuance of an inspection certificate neither warrants that any other person or entity has acted in accordance with such standards and procedures, nor constitutes any other warranty, express or implied including merchantability or fitness for purpose or otherwise which extends beyond that the certification that the product inspected met the regulations of the program.

Appendix I.

Wallowa Whitman National Forest Integrated Weed Management Plan

Direction for the Wallowa Whitman National Forest can be found in the document titled: "Integrated Noxious Weed Management Plan, Wallowa Whitman National Forest (1992). Currently this direction is tiered under the 1988 Environment Impact Statement and Record of Decision for Managing Competing and Unwanted Vegetation.

An injunction prohibiting the use of herbicides on Federal lands in the Pacific Northwest Region started in 1984. The Environmental Impact Statement for Managing Competing and Unwanted Vegetation was signed in 1988. This program-level analysis needed to be complete before site-specific analysis could begin. The 1988 decision was appealed, and litigation and appeals were finally resolved through a mediated agreement. In 1992, the Wallowa Whitman signed its forest-wide noxious weed plan and the first opportunity to use herbicides on the Wallowa-Whitman National Forest. Many feel the herbicide-free period on public lands, allowed noxious weeds to increase exponentially on public lands. However, the local Forest Service District has an active weed management program, and is a partner in local strategic planning.

Presently the Pacific Northwest Region is in the process of updating policy by developing a Draft Environment Impact Statement entitled "Invasive Plant Program, Preventing and Managing Invasive Plants. This document will replace the current direction and integrate new technology and science. The final Regional EIS is due in the spring of 2005. At that time, a site specific EIS for the Wallowa Whitman National Forest will also be developed and provide further direction for forest lands located within Wallowa County.

Under the current direction the following requirements are included:

- Stress Integrated Weed Management Emphasize prevention strategy
- No aerial spraying
- All treatment sites must have NEPA approval
- Approved Herbicide chemicals include glyphosate (Roundup & Rodeo), picloram (Tordon), triclopyr (Garlon), atrazine, hexazinone, and dicamba.

Riparian Habitat Conservation Areas (RHCA) buffers:

- 0-50ft.-no spray
- 50-100ft. – Rodeo
- Other (Picloram)
- 100ft. – non-fish intermittent streams and wetlands, seeps and springs
- 300 ft. – Class I streams/invl. Boom mounted truck for road side treatment

*herbicide application within RHCA will be hand spot spray with drift control

*herbicide to be sprayed on calm days or slight wind of 7 mph or less moving away from RHCA

* herbicide storage and mixing will be greater than 300 ft. from streams

All Forest Service contracts must follow the above-stated requirements as well as the contract specifications defined in Contract #53-04M3-2-0025A. This forest-wide contract for weed abatement is active for three years with renewal scheduled for 2005. The contract includes inventory and treatment of noxious weeds.

Appendix J.

Wallowa Canyonlands Partnership Cooperative Weed Management Area (CWMA)

Project summary

The Wallowa Canyonlands Partnership WMA (WCP) is a cooperative effort to secure and maintain healthy plant communities on over 1.4 million acres of canyon lands in and immediately neighboring Wallowa County through the coordinated application of Integrated Weed Management Principles across land ownership boundaries and jurisdictions.

These canyons are relatively un-infested lands and provide a host of habitats including critical winter homes for wildlife and ranching, unique wild-land beauty and recreational opportunities: the WCP will protect these resources that are so integral to our local communities and America's natural heritage.

Project abstract

The purpose of the Wallowa Canyonlands Partnership project is to maintain and protect the plant communities of the canyon lands within and around the north and east sides of Wallowa County from noxious weed invasion, completing the regional network of weed control. The Project area encompasses Joseph Creek, The Lower Grande Ronde, Imnaha, and many miles of the Snake River Canyons (see attached map). The native bunchgrass plant communities in these canyons are at extreme risk for noxious weed invasion because of their proximity to neighboring weed infestations and because of the intense disturbance regimes that canyon plant communities are subject to. These river canyons provide an excellent vector for the spread of noxious weeds because they are extremely rugged, have locally concentrated recreation (a source of new weeds) and because they are subject to annual flooding and erosion events associated with rivers and steep canyons. Wallowa Resources' Lower Grande Ronde Noxious Weed Program (PTI project 2003-0086-037) is currently managing weed control on the north and west flanks of Wallowa County. However, Hells Canyon, on the eastern flank, of the county has not received adequate attention from weed managers for several years. The Wallowa Canyonlands Partnership will continue the work of the Lower Grande Ronde Noxious Weed Program and invigorate weed control efforts in the same coordinated manner in Hells Canyon. This project will also provide a large measure of security from noxious weed invasion for the interior valley of Wallowa County and the Eagle Cap Wilderness.

Target weed species

Rush skeletonweed, Yellow starthistle, Dalmatian toadflax, Leafy spurge, Spotted, Diffuse, Russian, and Meadow knapweeds, White-top, Common crupina, Common bugloss, Meadow and Orange hawkweed, Japanese knotweed, Purple loosestrife, Perennial pepperweed, Scotch thistle, Sulfur cinquefoil, Italian thistle, and Tansy ragwort.

Appendix K.

Wallowa County Weed Board 2006 Action Plan

Monthly Weed Board meetings are dynamic brainstorming sessions with strong participation from the members and other community partners. Adjustments to existing projects are made, and additional projects are created as necessary.

Activity	Goals	Time frame	Status
Annual Weed Tour	Work with the Vegetation Manager and Extension to have the county weed tour accredited for four hours credit. Tour will focus on weed ID and IWM, calibration, labels, and safety. 50 people BBQ	Late June	underway
Policy	<ul style="list-style-type: none"> ➤ Develop five year Goals for weed board policy ➤ Update the County Weed List and present it to the County Commish for adoption by 4 /15. ➤ Update Cost share Policy for County weed funds ➤ Clarify hay quar/enforcement laws 	Feb.-March	Complete
Enforcement			Complete Not started Not started
Restoration Sites	Work collaboratively to adopt sites that have vegetation problems, particularly: <ul style="list-style-type: none"> ➤ Wallowa Nez Perce Band Site ➤ Joseph rodeo Grounds ➤ Bates Mill 	March- November	On-going
Integrated Weed Management Plan (IWMP)	The weed board will write an IWMP to guide noxious weed management for approximately the next ten years.	To NRAC by May	Underway
Educational Events	Implement the following educational events during 2004: <ul style="list-style-type: none"> -Shadow boxes –restore -Man the County Fair booth - Evaluate “Paddy Wagon” -Informational Radio Spots 	Year-round	On-going
OTHER	<ul style="list-style-type: none"> • WEED LEVY RENEWAL 	Jan - Nov	Ongoing
	<ul style="list-style-type: none"> • Weed Board will recruit Hay Station volunteers 	August	Not started
	<ul style="list-style-type: none"> • Weed Warriors –Help Improve quality of volunteer projects 	May -Sept	Not started
Prevention Sites	<ul style="list-style-type: none"> • Adopt prevention sites 	?	Not started

Appendix L.
Wallowa County Vegetation Department 2006 Action Plan

Activity	Goals	Time frame
Grant Applications	<i>Apply for available funding from and for:</i> Common bugloss Spotted knapweed White-top Leafy spurge	March-November
Contract Work	<i>Contract weed control from:</i> Umatilla NF ODOT WURR Joseph Airport	April-August April-August April-July
Roadside Treatment	<i>Provide IWM throughout the weed season:</i> 1. Pre-emergence spray on all oiled county roads, and majority of gravel roads 2. Broadleaf post-emergence spray on selected oil and gravel roads throughout county	mid March-mid April April-November March-November

Appendix M.

USFS Wallowa Mountains Office Noxious Weed Management Program 2006 Annual Plan

Project	Objective / Annual Goal	1st Quarter (Nov.-Feb.)	2nd Quarter (March-May)	3rd Quarter (June-Aug.)	4th Quarter (Sept.-Oct.)	Persons
Management	<ul style="list-style-type: none"> ◆ Comply with FS regulations/requirements ◆ EIS ◆ Strengthen partnerships 	<ul style="list-style-type: none"> ◆ Complete reports ◆ Update forest contract ◆ Site specific EIS ◆ Complete WCIWM 	<ul style="list-style-type: none"> ◆ Write Contracts ◆ Develop agreements ◆ Budget projections ◆ EIS involvement 	<ul style="list-style-type: none"> ◆ Supervise crews ◆ Inspect contracts ◆ EIS involvement 	<ul style="list-style-type: none"> ◆ investigate 07 funding opportunities ◆ EIS involvement 	<ul style="list-style-type: none"> ◆ FS
Inventory / Assessment	<ul style="list-style-type: none"> ◆ monitor Biocontrol effectiveness ◆ Monitor fire plots/FHM ◆ Implement DASM for high risk sites & fire areas ◆ Inventory void areas ◆ Coordinate with ODA on inventory of exchange lands ◆ Inventory/ monitor of fire areas including Tryon, Granite, Turner Fires 	<ul style="list-style-type: none"> ◆ Collaborate w/in agency ◆ Collaborate with partners (OR/ID) ◆ Work on partnership agreements 	<ul style="list-style-type: none"> ◆ Share data with Counties ◆ Begin fire inventory ◆ Begin ODA inventory ◆ Bio monitor of YST in HCW ◆ Inventory of Dug Bar for common crupina 	<ul style="list-style-type: none"> ◆ Continue fire. inventory ◆ Continue ODA inventory ◆ Inventory void areas ◆ DASM inventory ◆ Fire area inventory 	<ul style="list-style-type: none"> ◆ Follow up inventory/treatment 	<ul style="list-style-type: none"> ◆ FS ◆ Contract partners
Mapping	<ul style="list-style-type: none"> ◆ Complete Area Map Update 	<ul style="list-style-type: none"> ◆ Input 05 inventories in GIS ◆ Update old maps ◆ Link sites into TERRA 	<ul style="list-style-type: none"> ◆ Combine inventories into WMO layer ◆ Share WMO 05 layer w/ partners ◆ Incorporate WMO layer to forest layer 	<ul style="list-style-type: none"> ◆ Begin adding new inventory data to WMO layer 	<ul style="list-style-type: none"> ◆ Complete input from 05 inventories 	<ul style="list-style-type: none"> ◆ FS ◆ Intern? ◆ partners
Treatment	<ul style="list-style-type: none"> ◆ Treat knotweed in Tyron Fire Complex ◆ Extirpate New invaders ◆ Manage Landscape scale infestations 	<ul style="list-style-type: none"> ◆ Submit annual reports ◆ Check on past treatments 	<ul style="list-style-type: none"> ◆ Begin Treatment on Imnaha/Snake ◆ Treat new invaders ◆ Bugloss contract ◆ Work in ID ◆ Contract inspections 	<ul style="list-style-type: none"> ◆ YST/DK/Dt bio collection/release ◆ Treat of FS sites as possible ◆ Contract inspections 	<ul style="list-style-type: none"> ◆ treat Rush Skeletonweed spray(ID/OR) ◆ Implement Knotweed project ◆ Fall treatments/contract inspections 	<ul style="list-style-type: none"> ◆ FS ◆ Contract partners
Revegetation	<ul style="list-style-type: none"> ◆ Implement integrated weed management including restoration in project design 	<ul style="list-style-type: none"> ◆ Choose sites for fall ◆ Collaborate w/partners ◆ Transfer rangeland drill and trailer 	<ul style="list-style-type: none"> ◆ Purchase seed? ◆ Choose sites for fall ◆ Test drill/trailer 	<ul style="list-style-type: none"> ◆ Monitor 	<ul style="list-style-type: none"> ◆ Implement projects (Cherry Cr.) 	<ul style="list-style-type: none"> ◆ FS ◆ Contract partners
Coordination	<ul style="list-style-type: none"> ◆ Collaborate with ID ◆ Collaborate with Partners/Volunteers ◆ Define agreements ◆ Collaborate w/U of I 	<ul style="list-style-type: none"> ◆ Assist w/ ID grants ◆ Coordinate w/TNC on Collins 	<ul style="list-style-type: none"> ◆ Share data ◆ Design volunteer projects ◆ Finalize agreements 	<ul style="list-style-type: none"> ◆ Weed tours ◆ Implement volunteer activities 	<ul style="list-style-type: none"> ◆ Work on 07 objectives ◆ FHM presentation 	<ul style="list-style-type: none"> ◆ FS ◆ partners
Education /Prevention	<ul style="list-style-type: none"> ◆ Develop, design and implement County news awareness ◆ Educate visitors to area ◆ Collaborate with WV Weed Warriors 	<ul style="list-style-type: none"> ◆ Develop news releases ◆ Implement Ed contract for field guide ◆ Develop presentations 	<ul style="list-style-type: none"> ◆ Presentations ◆ FFA/HCW project ◆ Update fair displays 	<ul style="list-style-type: none"> ◆ Implement volunteer projects ◆ Assist in fair booth ◆ Implement news ads 	<ul style="list-style-type: none"> ◆ Follow up news ads ◆ Assist with Design of 07 hunting guide ad 	<ul style="list-style-type: none"> ◆ FS ◆ partners

Appendix N.

Wallowa Resources Lower Grande Ronde Noxious Weed Program 2006 Annual Plan

Project	Objective / Annual Goal	1st Quarter Milestones	2nd Quarter Milestones	3rd Quarter Milestones	4th Quarter Milestones	Persons
Inventory / Assessment	<ul style="list-style-type: none"> ◆ Inventory unexplored areas of LGR ◆ Asses Biocontrol effectiveness ◆ Implement DASM for high risk sites 	<ul style="list-style-type: none"> ◆ Collaborate w/ County Road/Veg Depts. on N end work ◆ Collaborate w/ agencies ◆ MDH inv. ODFW 	<ul style="list-style-type: none"> ◆ Share data with Counties ◆ Inventory Elgin To Rondowa ◆ Lower Joe/Schu Inv ◆ Inventory river sites 	<ul style="list-style-type: none"> ◆ Inv Wenaha Wilderness ◆ DASM Mtn View for Dt ◆ Reread al monitor plots ◆ YST plot in Hackberry 	<ul style="list-style-type: none"> ◆ Follow up treatments 	<ul style="list-style-type: none"> ◆ MP ◆ Contract
Mapping	<ul style="list-style-type: none"> ◆ Complete Area Map Update 	<ul style="list-style-type: none"> ◆ Update old maps ◆ Create LGR 05 layer 	<ul style="list-style-type: none"> ◆ Distribute landowner maps ◆ Share LGR 05 layer w/ partners 	<ul style="list-style-type: none"> ◆ Begin adding new inventory data to LGR layer 	<ul style="list-style-type: none"> ◆ Create 06 GRR layer 	<ul style="list-style-type: none"> ◆ MP ◆ Intern?
Treatment	<ul style="list-style-type: none"> ◆ Contain DT LS ◆ Extirpate New invaders ◆ Manage Landscape scale infestations 	<ul style="list-style-type: none"> ◆ Plan Lower Jo aerial ◆ Check on past treatments 	<ul style="list-style-type: none"> ◆ Lower Joe Aerial trt ◆ Trt new invaders ◆ Implement Crupina containment ◆ Plan River Spray 	<ul style="list-style-type: none"> ◆ Release M janthinus in Wildcat/Mud ◆ Release A. lacertosa on river LS ◆ Implement River Spray and RSW seed control ◆ Collect/export DKW bios 	<ul style="list-style-type: none"> ◆ Implement Rush Skeletonweed spray 	<ul style="list-style-type: none"> ◆ MP ◆ Contract
Revegetation	<ul style="list-style-type: none"> ◆ Revegetate/Reclaim 500 acres 	<ul style="list-style-type: none"> ◆ Choose sites for fall ◆ Implement seedings ◆ Acquire additional funding as needed ◆ Order plugs 	<ul style="list-style-type: none"> ◆ Purchase seed? ◆ Choose sites for fall 	<ul style="list-style-type: none"> ◆ Monitor past seeding sites/ photograph 	<ul style="list-style-type: none"> ◆ Implement projects 	<ul style="list-style-type: none"> ◆ MP ◆ Contract
Coordination	<ul style="list-style-type: none"> ◆ Collaborate with Pomeroy and WW RD's ◆ Refine WDFW agreement ◆ WCP or LGRNWP 	<ul style="list-style-type: none"> ◆ Schedule presentation district meetings ◆ Determine Umatilla NF needs 	<ul style="list-style-type: none"> ◆ Give Presentations ◆ Share data 	<ul style="list-style-type: none"> ◆ Tour w/ new managers 	<ul style="list-style-type: none"> ◆ Line funding and agreements treatments for 06 	<ul style="list-style-type: none"> ◆ MP
Education /Prevention	<ul style="list-style-type: none"> ◆ Implement Bounty Program ◆ Educate visitors to area 	<ul style="list-style-type: none"> ◆ Finalize and Announce Bounty design ◆ Find apply for funding for Weed Signs Minam... ◆ Write up Toadflax brochure 	<ul style="list-style-type: none"> ◆ Implement and check bounties ◆ Secure funding Design Boards ◆ Write up Medusa head brochure 	<ul style="list-style-type: none"> ◆ Implement and check bounties ◆ Write up Whitetop brochure 	<ul style="list-style-type: none"> ◆ River Boards at Minam, Troy, Boggan's, Schumaker, Rogersburg, Cottonwood 	<ul style="list-style-type: none"> ◆ MP