

APPENDIX I

USDA FOREST SERVICE, PACIFIC NORTHWEST REGION STRATEGY FOR SUPPORTING INVASIVE PLANT MANAGEMENT ON STATE AND PRIVATE FOREST LANDS

OVERVIEW OF THE STRATEGY

On September 25, 1998, Chief Mike Dombeck released the USDA Forest Service (FS) Strategy for Noxious Weeds and Nonnative Invasive Plant (IP) Management. In 1999, the Pacific Northwest (PNW) Region produced a IP Strategy for National Forest System (NFS) lands that builds upon the FS (National) Strategy and adapts goals and priority actions to situations encountered on National Forest lands in Washington and Oregon states.

Since the release of the PNW Region Strategy for NFS lands, the involvement of the Forest Health Protection (FHP) staff in IP management has steadily increased. FHP supports cooperative efforts that manage IP's on nonfederal/state and private (S&P) forested lands. FHP may provide support through technical and financial assistance to state, county, extension, and Cooperative Weed Management Areas (CWMA's) and other agencies/entities responsible for aspects of IP management on S&P lands.

PNW Region has prepared this strategy to best focus the resources that FHP contributes to IP management on S&P lands. The strategy describes our partner programs and identifies priority activities where FHP can most effectively support the Integrated Weed Management (IWM) of our diverse partners. There are also benefits to NFS lands from more effective IP management on S&P forest lands. These lands are often intermingled or closely associated, and can be sources of IP introduction and spread across ownerships; weeds know no boundaries.

WHAT IS A NOXIOUS WEED?

Forest Service policy defines noxious weeds as "those plant species designated as noxious weeds by the Secretary of Agriculture or by the responsible State official." (FSM 2080) Both Washington and Oregon have designated Noxious Weeds, which are the focus of state and county programs, as designation as a Noxious Weed invokes state laws and regulations for prevention and control. The FS National and PNW Region Strategies use the term "Invasive Plants" to more broadly encompass all invasive, aggressive, or harmful non-indigenous plant species, including but not limited to Noxious Weeds. FHP support to invasive plant management in Washington and Oregon will focus on state and federal-designated noxious weeds because of state legal and regulatory requirements.

PNW REGION NOXIOUS WEED ORGANIZATION

Three branches of the Forest Service share responsibility for aspects of noxious

weed management: National Forest System, State and Private Forestry, and Research.

National Forest System

Forest Supervisors and the Columbia River Gorge National Scenic Area Manager have the responsibility to prevent, eradicate or control noxious weeds on the National Forest lands which they administer. Within the Regional Office, the Natural Resources staff administers the Invasive Plant program. The Regional Office and each National Forest has designated a Noxious Weed Coordinator. Coordinators are resource professionals from various disciplines including forest management, range management, botany, hydrology, ecology, and wildlife biology. PNW Region will release an EIS in 2004 that amends Forest Plan standards through the Region for more effective invasive plant prevention, treatment, and restoration, in cooperation with non-federal neighbors and partners.

Research

PNW Station researchers and cooperating university faculty provide support to invasive plant management.

State and Private Forestry

The Natural Resources staff, Forest Health Protection (FHP) group in the Regional Office provides support to IP management in PNW S&P forest lands. FHP provides technical support and assistance in IWM, pesticide use, and biocontrol development. The PNW Region Invasive Plant Program Manager administers both SPF and NFS facets of IP management. FHP provides leadership and technical expertise to the new PNW Region EIS in support of NFS invasive plant management. This S&P lands invasive plant strategy recognizes that our partners have the lead in deciding what and where activities will take place. FHP is a full partner in coordinating these activities with NFS priorities and ensuring the accountability of partners for appropriate use of federal funds. Thus, this strategy and annual proposed activities are programmatic in nature.

OVERVIEW OF STATE AND SUBREGIONAL NOXIOUS WEED MANAGEMENT ORGANIZATIONS

OREGON

Oregon Department of Agriculture, Plant Division, Weed Control Program (ODA) provides statewide technical assistance in all aspects of Integrated Weed Management to essentially all ownerships—state, private, and most federal lands. ODA maintains a statewide management staff of four, located in the capital city of Salem, and six field specialists located throughout Oregon. The PNW Region FS has cooperated with and funded ODA for IWM work on National Forests for many years

and recently also on S&P lands through FHP funds. ODA prepared a statewide Strategic Plan for Noxious Weed Management in 2002 which complements this strategic plan.

Additionally, several subregional Cooperative Weed Management Areas have been established which are independent, locally-based organizations with wide stakeholder participation that includes representatives of FS and ODA.

WASHINGTON

In contrast to Oregon, Washington's noxious weed management organization is decentralized. The Washington State Noxious Weed Control Board manages processes for designation of noxious weeds, and coordinates county activities; however, no statewide organization exists for delivery of weed management services excluding biological control expertise provided by Washington State University Extension. Okanogan County has been the most active county weed control agency in cooperative weed management, involving FS partnerships; a few other counties have also been active, primarily in northeast Washington and the Columbia Gorge.

Cooperative Weed Management Areas have been organized, most notably in Puget Sound area where they focus on noxious riparian weeds including Japanese knotweed. A large-scale partnership has developed in northeast Washington to provide biological control expertise and services to all land owners, including, state, private, tribal, and FS. The PNW Region FS has contributed both NFS and FHP funds for startup and expansion of this program, which is broadly recognized and supported by partners; it is now expanding to provide statewide service.

COMPONENTS OF AN INTEGRATED INVASIVE PLANT MANAGEMENT STRATEGY

Experience has shown that Integrated Weed Management (IWM) is most effective. IWM combines coordinated prevention practices; early detection and rapid response to new invaders; sustained eradication or control of established weeds; and restoration and monitoring. By the time an invasive plant is perceived as a "problem" in a particular area, the opportunity for prevention is lost, eradication is difficult, control is costly, and impacts on wildland ecosystems and uses are severe.

1. PREVENTION AND EDUCATION

Current Situation

Education and information exchange (I&E) are continuing and important components of prevention strategies. Public outreach and education will make forest users aware of how noxious weeds are introduced and spread, and what are the associated environmental impacts and costs. Once educated, many forest users will adopt prevention practices to reduce the likelihood of weed introduction and spread from their activities. Furthermore, prevention programs are more broadly effective when all forest users are involved and everyone is perceived to be part of the effort. I&E also supports Early detection and Rapid Response programs.

However, most actions outlined in the FS guide to Weed Prevention Practices are purely voluntary on non-NFS lands. Development of demonstration projects may be possible in the future to encourage their voluntary adoption. One notable opportunity in both Washington and Oregon where a state role exists is the development of weed-free feed, straw and mulch programs. Neither state has any statewide weed-free certification program in place. Both WSDA and ODA staffs have proposed weed-free certification programs in the past, but the proposals have not been accepted due to costs and grower group concerns. In Oregon, a few local grass-roots programs have generated increasing interest.

ACTIONS

- 1A Develop, support, and distribute weed awareness, identification and prevention information at regional and local information centers in Washington and Oregon
- 1B Participate in noxious weed awareness and education opportunities with user groups, civic groups, legislators, interested citizens, and agency employees in Washington and Oregon.
- 1C Compile listing of weed awareness and education resources available to agency personnel and the public and include in weed prevention electronic media.

- 1D Develop in concert, and in consultation with state Departments of Agriculture implementation plans for weed-free straw, mulch and feed certification and for closures on public lands. Foster support for trial weed-free forage programs and for use of weed-free products by private land owners/managers.

2. EARLY DETECTION AND RAPID RESPONSE (EDRR)

Current Situation

State and Private capacity for early detection and rapid response depends on several factors:

- Number and distribution of people (staffs, cooperators, and educated publics) able to recognize potential new invaders
- Regulatory noxious weed designations for new invaders of limited distribution and for plants known to be highly invasive in comparable environments but not yet reported to exist in the state. Both OR and WA have such designations in their noxious weed regulations.
- Regulatory and control capacity to respond quickly and effectively to new discoveries.

ODA is a leader in early detection and rapid response efforts, with up to 20 ongoing or proposed EDRR programs at a state or regional level. WSDA does not currently have organizational capability for statewide EDRR, however some counties and CWMA's have EDRR efforts

In addition to statewide EDRR, the same tactics should be implemented within each state on a subregional geographic basis for noxious weeds of limited distribution. For example, ODA control policy for tansy ragwort in western Oregon (where it is widely distributed) is containment, primarily with biological control. In contrast, eradication is the objective in northeastern Oregon where isolated, limited populations exist and biocontrol agents do not appear to be effective.

Another factor to assist with subregional EDRR is a statewide reporting and spatially-based mapping system to track infestations across the state. Oregon State Univeristy has developed such a system, named "Weedmapper", and ODA and federal agencies are discussing how best to implement it statewide.

ACTIONS

- 2A Provide resources to ongoing and new EDRR efforts determined by state, county and CWMA weed managers.
- 2B Support statewide reporting and mapping capabilities to identify new

introductions, determine their extent and design rapid response programs to control new invaders.

- 2C Develop a Memorandum of Agreement with WSNCB and WSDA to build capacity for early detection and rapid response under state regulations in cooperation with active county weed boards and CWMA's.

3. INTEGRATED CONTROL STRATEGIES

Effective control of noxious weeds statewide has both technical and jurisdictional aspects to be addressed.

County and CWMA organizations emphasize effective control of existing noxious weed infestations. Herbicide use is generally preferred, except in some environmentally or socially sensitive situations where manual or mechanical control is preferred. General training and treatment information are somewhat available through state and professional organizations, but more focused training on Integrated Weed Management would help private land managers.

Interest in biological control techniques is high, and recent FS support has expanded capacity and service in both Washington and Oregon. Biocontrol efforts need to continue and increase because biocontrol technology continually expands for new pest plants, new control agents and agent complexes, and new environmental situations.

To be effective on a large scale, noxious weed control has to be integrated in techniques, and applied across all affected ownerships. State, county, federal, and private organizations must all have capacity and be appropriately involved in noxious weed control. CWMA's have a unique role in coordinating cross-jurisdictional control efforts, distinct from, but complementary to federal, state, and county programs.

Programs to map distributions of weed infestations across landscapes support effective planning for coordinated control strategies. Remote sensing is not used significantly in weed inventory due to limited technology development. Studies indicate that reliable weed infestation identification is highly seasonal, and varies among weeds, and among elevational/climatic gradients for a weed species.

ACTIONS

- 3A Support and expand integrated control programs and training available to private land managers through state and county agencies and CWMA's in WA and OR.
- 3B Support additional biocontrol technology development and transfer by specialized, qualified organizations: ODA and WSU Extension Weed Biocontrol program.

- 3C Support statewide and subregional reporting and mapping capabilities to identify noxious weed distributions, determine state and regional priorities, and design response programs to control priority established noxious weeds.
- 3D Work with FS technology development centers and cooperators to develop and refine techniques for remote sensing of weed infestations.
- 3E Develop a Memorandum of Agreement with WSNCB and WSDA to build capacity for integrated control programs in cooperation with active county weed boards and CWMA's.

4. RESTORATION

Plant ecologists recognize the importance of reestablishing desired plant communities to restore ecological function, to resist reinfestation, and to avoid the costs associated with retreatment. However, the scientific basis for developing restoration methodologies is meager. Much more needs to be learned about effective restoration techniques for areas with varied disturbance regimes and long-term management objectives. Where management objectives necessitate repeated disturbance, such as rangelands and rights-of-way, restoration techniques are very different from natural areas where future disturbance is minimal. Also, desired plant materials, especially native plants, are limited in availability and very costly.

The laws and regulations requiring control of noxious weeds do not require restoration; demonstrations and incentives are possible methods of persuasion for state and local organizations to gain landowner support for restoration programs (perhaps in cooperation with Extension Services and Resource Conservation Districts).

ACTIONS

- 4a Provide technical assistance and cooperate with state, county, and CWMA's to develop monitoring programs to more systematically assess effectiveness of weed control and restoration over time at appropriate scales.
- 4B Provide technical and financial support to agencies, cooperating research institutions, and CWMA's for development of locally-effective restoration practices and demonstration areas for technology transfer.
- 4C Support development of nursery production techniques for appropriate plant species/cultivars for commercial growers, to provide seed/stock for large-scale, economically feasible restoration practices.

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