

USDA Legal Authority to Regulate Invasive Plants

The Plant Protection Act
The Federal Seed Act
The Organic Administration Act
The Multiple Uses Sustained-Yield Act of 1960
The National Forest Management Act
The National Environmental Policy Act of 1969
Federal Noxious Weed Act of 1974
Federal Land Policy and Management Act of 1976
Public Rangelands Improvement Act of 1978
Cooperative Forestry Assistance Act of 1978
Forest and Rangeland Renewable Resources Research Act of 1978
Food Security Act of 1985
International Forestry Cooperation Act of 1990
Soil Conservation and Domestic Allotment Act
Federal Agriculture and Reform Act of 1996



Executive Summary

Invasive species have been identified by Dale Bosworth, the Chief of the U.S. Department of Agriculture, Forest Service, as one of the four significant threats to our Nation's forest and rangeland ecosystems. In response to this identified threat, a multidisciplinary team of specialists, managers, and researchers has worked together to produce a *National Strategy and Implementation Plan for Invasive Species Management* to guide the Forest Service as it takes on the invasive species challenge.

A strategic Forest Service response to invasive species is a large and significant undertaking. We have come far in addressing the invasive species problem in the United States, but we want to improve our effectiveness. This new strategy identifies those next steps we need to take as an agency, often by working with partners.

The Forest Service is positioned to be a leader nationwide and worldwide in the battle against invasive species. Our challenge is to learn and collaboratively work with partners.

This national strategy encompasses four program elements:

1. Prevention
2. Early detection and rapid response.
3. Control and management
4. Rehabilitation



USDA Forest Service Pacific Southwest Region

INVASIVE PLANT MANAGEMENT

ABSTRACT

The US Forest Service has declared nonnative, invasive species a key threat to National Forests. All invasives combined cost Americans more than \$137 billion a year in total economic damages and associated controls. Infestations of terrestrial and aquatic invasive plants have reached epidemic proportions, spreading rapidly over hundreds of millions of acres, across all landscapes and ownerships. Invading weeds can alter species diversity, hydrology, nutrient cycling, and natural disturbance patterns such as frequency and intensity of wildfires. The Forest Service has developed an integrated management strategy to address invasive plants. National Forests in California total approximately 20 million acres. These areas provide drinking water and support a wealth of plant and animal diversity, as well as support recreation and timber production. Land managers on these forests face a unique challenge to manage noxious weeds. Tools used to combat noxious weeds include: prevention of new introductions, mapping and identification, and treatment of sites with an array of techniques.

Factors That Complicate Weed Management



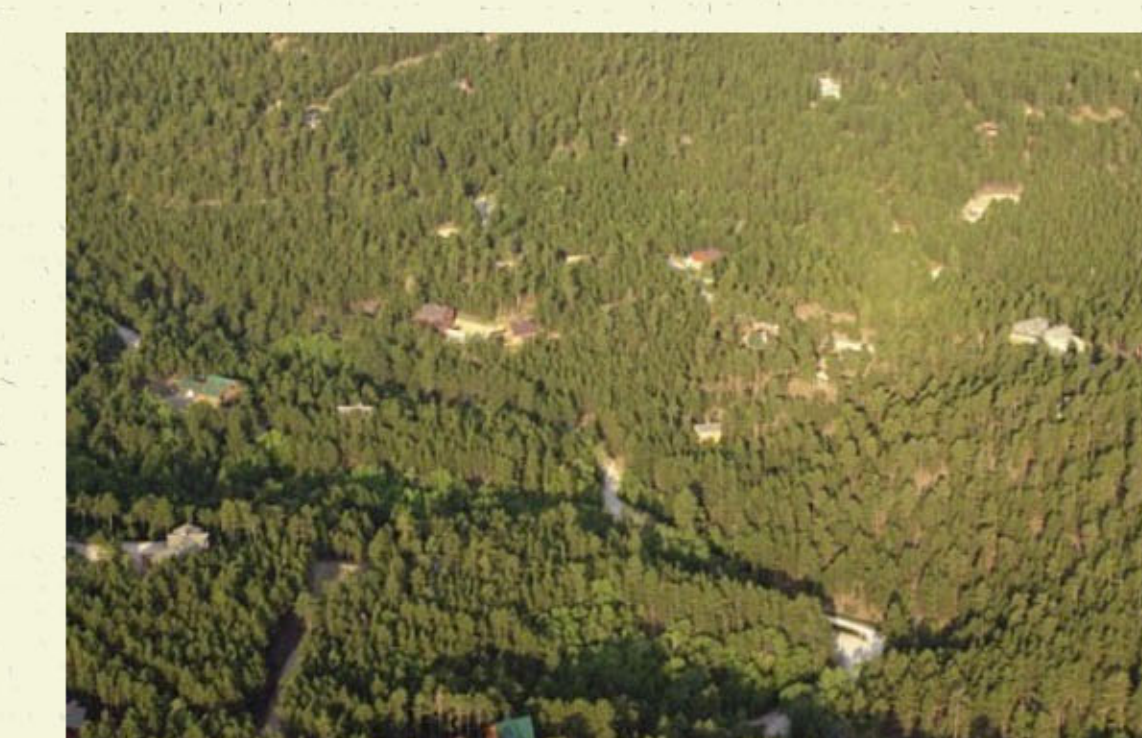
There are over 30,000 miles of roads for "High Clearance Vehicles" on national forests in CA. OHV's can vector weed seeds and expose bare soil creating habitat for some noxious weeds.

Timber harvest removes overstory shade and exposes bare soil, creating perfect conditions for noxious weed invasion. Harvest equipment can vector seeds from infested areas.



High intensity, stand replacing wildland fires can denude the landscape, creating conditions perfect for noxious weed invasion. Also, suppression equipment can vector seeds and other propagules.

Cattle can vector noxious weed seeds into uninfested areas. Also over-grazed areas can be subject to weed invasion.



The wildland urban interface (WUI) are areas where private development abutt the forest. These areas may be more prone to invasion from garden escapes. In addition, not all weed control tactics are appropriate in this setting.



Poster created by Chris Christofferson Assistant Botanist
Plumas National Forest, Feather River Ranger District
Questions / comments? contact him at:
christofferson@fs.fed.us work phone (530) 532-7473

Solutions and Tactics

The Pacific Southwest Region has developed a Noxious Weed Strategy. The primary goals of the strategy are to:

1. Increase the understanding and awareness of noxious weeds and the adverse effects they have on wildland ecosystems.
2. Develop and promote implementation of a consistent integrated pest management (IPM) approach. Also, institutionalize consideration of noxious weeds in all planning and project analysis.
3. Develop strong partnerships and cooperation with private landowners, county governments, state and federal agencies, extension service, universities, and the research community for a consolidated and united approach to managing invasive species.

The Region's strategy uses six emphasis areas to address the goals identified above. They are:

Coordination and Cooperation

Involvement with local weed management groups helps facilitate collaboration and information exchange. Weed tours help educate those people unfamiliar with particular weeds.



Prevention and Education

Preventing infestations or identifying them while they are small is the most economical way to treat noxious weeds. To accomplish this, Noxious Weed Prevention Clauses are incorporated into projects. These include weed free gravel fill, weed free mulch for erosion control, and the cleaning of logging and fire equipment coming from infested areas.



Control/Project Planning

Weed surveys are conducted in conjunction with projects. For all ground disturbing activities, Noxious Weed Risk Assessments are prepared to address the project effects on noxious weeds. Control activities utilize a combination of tactics including flaming, manual, chemical, and biological controls.



Inventory, Mapping, and Monitoring

National data collection standards have been developed to catalogue infestations. Global positioning systems are utilized in conjunction with classical mapping techniques. A nation-wide GIS database is under development to aid in project planning.

