

IDAHO'S STRATEGIC PLAN FOR MANAGING NOXIOUS WEEDS

Idaho State Department of Agriculture
February 1999

STATEMENT OF ENDORSEMENT AND SUPPORT

The participants in the Idaho Strategic Plan for Managing Noxious Weeds agree that the goals, objectives and actions outlined in the plan provide a structure that, if supported and advanced through individual or cooperative actions, will further the effective management of invasive weeds across all lands and jurisdictions of the state of Idaho.

The participants in this strategic plan recognize that through the development of a statewide coordinated and cooperative approach to noxious weed management, they can more effectively advance the actions necessary to achieve both the Strategy's goals and objectives and respective individual and organizational responsibilities.

Supporting Organizations:

- [Idaho State Department of Agriculture](#)
- [Idaho Department of Lands](#)
- [Idaho Transportation Department](#)
- Idaho Weed Control Association
- Idaho Association of Weed Control Superintendents
- Nature Conservancy
- [Bureau of Land Management](#)
- Intermountain Region, Forest Service
- Northern Region, Forest Service
- [Idaho Association of Counties](#)
- [University of Idaho](#)
- Idaho Fertilizer and Chemical Association
- [Idaho Hay Growers](#)
- Idaho Water Users Association
- Food Producers of Idaho
- [Idaho Association of Soil Conservation Districts](#)
- Nez Perce Tribe
- [Idaho Department of Fish and Game](#)
- Bureau of Reclamation

The parties supporting this strategy understand that it is a non-binding statement of consensus that recognizes the respective rule making and administrative authorities of state, tribal, federal and local governments and non-government private sector interests.

INTRODUCTION

The Idaho Strategic Plan for Managing Noxious Weeds addresses eight broad issues critical in building a strong and successful statewide noxious weed management program. These issues were identified and discussed at the May 1998 Governor's Idaho Weed Summit in Boise:

I. Organization and Leadership

- a. Create an inclusive, focused and consistent organization.
- b. Develop leadership and support of Cooperative Weed Management Areas to strengthen local efforts.

II. Coordination, Cooperation and Partnerships

- a. Seek effective and consistent coordination and cooperation.
- b. Develop and expand interest group partnerships.

III. Awareness and Education

- a. Expand understanding of impacts of noxious weeds.
- b. Upgrade weed management continuing education.

IV. Funding and Resources

- [a. Obtain adequate funding.](#)
- [b. Expand the use of incentives to fund effective weed programs.](#)
- [c. Expand the use of cooperative agreements and resource sharing.](#)

V. Inventory, Mapping and Monitoring

- [a. Locate and map noxious weed infestations.](#)
- [b. Develop a statewide noxious weed monitoring program.](#)

VI. Assessments and Adaptive Planning

- [a. Integrate weed management into resource management activities.](#)
- [b. Develop an early detection system for Idaho.](#)
- [c. Provide statewide weed management program direction.](#)

VII. Research and Technology

- [a. Integrate weed management into resource management activities.](#)

VIII. Compliance and Enforcement

- [a. Seek voluntary compliance with weed laws.](#)
- [b. Ensure fair and consistent enforcement of noxious weed laws.](#)

The purpose of the Strategic Plan is two fold: (1) to heighten the awareness among all citizens of the degradation brought to Idaho lands and waters by the explosive spread of non-native weeds and, (2) to bring about greater statewide coordination, cooperation and action that will successfully halt the spread of such weeds and restore infested lands and waters to a healthy and productive condition.

The Strategic Plan recommends the statewide formation of *Cooperative Weed Management Areas* and application of *Integrated Weed Management* practices. This is the best method for reducing the ecological, economic and social impacts of noxious weeds on the state's human and natural resources. To accomplish this, the supporters and cooperators will incorporate resources, priorities and strategies of federal, state, and county agencies into a unified approach to halt or slow the spread of noxious weeds across Idaho.

An Implementation Plan (or Plans) will follow completion of the Strategic Plan and will address each of the major issues detailing *who, what, where, when, and how* for the proposed actions. Many of the specific actions to be included in the Implementation Plan will be drawn from the May 1998 Summit recommendations.

BACKGROUND

Idaho encompasses approximately 53.5 million surface acres. Nearly sixty-two percent or 33.7 million acres is federally owned and managed, primarily by the U.S. Department of the Interior's Bureau of Land Management (11.9 million acres) and by the Forest Service in the U.S. Department of Agriculture (20.4 million acres). Most of the federal land is non-cultivated forest and rangeland. The State of Idaho owns and manages approximately 2.6 million acres, primarily forest and rangeland, and the balance, 17.6 million acres, is in private or municipal ownership. The general land type of these 53.5 million acres of Idaho lands is as follows:

General Land Type Acres (millions)

- | | | | |
|-----------------|------|-----------------|-----|
| • Range | 21.9 | • Urban | 0.5 |
| • Forest | 20.6 | • Surface Water | 0.5 |
| • Agricultural | 7.9 | • Wetlands | 0.3 |
| • Miscellaneous | 1.8 | | |

The Problem

A weed is simply a plant out of place. A plant is usually considered a weed when it interferes with beneficial uses of land or water, displaces desirable or native plants, or affects human and animal health. Weeds aggressively compete for moisture, nutrients, space and sunlight with surrounding desirable plants. Most troublesome weeds are "exotics" or non-native species that exhibit aggressive invasive behavior, are highly adaptive, have high reproductive abilities, and are persistent. They typically invade where human activities have caused disturbances such as road construction, non-intensive farming, poorly managed grazing or logging, urban development and high impact recreation.

"Noxious Weeds" are designated by state law or county ordinance because they cause, or can cause, extraordinary negative economic and ecological impacts, and control is usually difficult and expensive.

Weeds are typically spread by dispersal of seeds or plant parts in a variety of ways. Wind, water, animals, machinery and people carry seed and plant parts from one location to another. Many weeds produce abundant seeds with barbs, hooks or other attaching devices that facilitate easy adherence to people, animals or equipment. Because society has become increasingly mobile, weed seeds can and do travel great distances quickly. Weeds usually become established and advance along highways, roads, trails and river corridors. Some noxious weeds, such as purple loosestrife, have been spread through ill-advised horticultural and home garden plantings. Others have been inadvertently introduced through planting of contaminated crop seeds, the feeding of weed seed contaminated forage to livestock, or on vehicles, boats or other machinery.

Noxious weeds are spreading at an alarming rate across the Western United States and Idaho is no exception. Although the exact acreage is unknown, it is estimated that over 8 million acres of Idaho lands are severely infested by one of the state-designated thirty-five noxious weeds. In 1963, one rangeland weed, rush skeletonweed, occupied approximately 40 acres near Banks, Idaho. Today, it is found across 4 million acres and continues to spread. Yellow starthistle has increased from a few acres in 1955 to nearly 500,000 acres. Left unchecked, noxious weeds can spread at a surprising rate of fourteen percent per year. In addition, new weeds are regularly being found across the state. It is also likely that some potentially dangerous weeds have, so far, escaped detection.

The negative impacts of weeds are well known and profound. Noxious weeds can create monocultures that eliminate diverse plant communities. Watersheds dominated by noxious weeds tend to be less efficient in absorbing and storing water resulting in increased soil erosion.

Noxious weeds can diminish forage production for all classes of herbivores and reduce habitats for small birds and animals. In addition, many noxious weeds are poisonous or injurious to animals. Aquatic weeds can obstruct irrigation, clog machinery, destroy fish habitat, contribute to flooding and reduce recreational use.

Medusahead rye and downey brome (cheatgrass) have had profound impacts on wildland ecosystems and have altered fire frequencies and intensities in the sagebrush country of southern Idaho. At North Dakota's Theodore Roosevelt National Park, leafy spurge reduced bison forage by eighty-three percent and deer and elk forage by seventy percent. In Montana, forage capacity of elk ranges was reduced forty percent by spotted knapweed.

Musk thistle, scotch thistle, yellow starthistle and several other Idaho noxious weeds can cause physical discomfort or irritation to humans due to barbs, spines and prickles. Puncture vine, a common weed of urban roads and trails, can puncture bicycle tires and result in substantial repair or replacement costs. In 1998, Eurasian watermilfoil contributed to three drownings in Green Lake, Washington.

The Cost

The estimated annual loss of productivity caused by noxious weeds in sixty-four crops grown in the U.S. is \$7.4 billion. Based on information from private lands, and federal, state, and county organizations, an estimated total direct cost for all Idaho lands is \$300 million annually. The true costs to Idaho citizens from the impact of aquatic and terrestrial noxious weeds are unknown. Even though it is difficult to estimate a dollar value for the loss of forage production, plant diversity, wildlife habitat, watershed health, recreation and tourism, human life and property, the cost to Idaho is high.

Currently there are not enough dedicated resources to effectively manage the noxious weed problem in Idaho. Funds that are available are not always utilized in an efficient manner under the existing individual agency management strategy. On the whole, the independent actions of concerned landowners and agencies have not been effective in the control and management of noxious weeds.

The Solution

A solution to the extensive weed problem is to develop cooperative strategies on local, regional and state levels, with the goal of stopping the spread of noxious weeds across all lands and waters of the state. Once the spread of weeds is halted, weed infested areas must be reclaimed and restored to a healthy and productive condition.

To achieve this, the supporters of this Strategic Plan recognize the importance of building effective "grass roots" organizations and broadly using on-the-ground operational techniques that have emerged as the signature of effective weed management programs in other areas.

Cooperative Weed Management Areas (CWMA)s have been widely recognized as a model for organizing an effective weed management program at the local level. A CWMA brings together all interested and concerned parties in a watershed or geographic area for the purpose of combining expertise, energy and resources to deal with common weed problems. It provides an open forum for the concerns of all area citizens, landowners and managers to be considered and dealt with effectively.

A CWMA does not diminish or supersede functions of any government entity such as national forests, weed districts or soil conservation districts. Rather, it integrates these entities into a viable weed program.

Noxious weeds exhibit no respect for land ownership or jurisdictional boundaries. Therefore, a CWMA attempts to blur or eliminate those boundaries through program cooperation and integration. CWMA boundaries are preferably established by watershed or hydrographic divides, vegetation zones, topography, common weed species and land uses. If it makes sense to do so, a CWMA may also be established across *interstate* areas.

After the boundaries of a CWMA have been tentatively established and sufficient public meetings have been held to help local citizens understand the goals of the CWMA, a more formal **steering committee** will be established representing the major landowners in the defined area. **Integrated Weed Management (IWM)** planning can proceed with selected management strategies developed by the group to achieve mutually agreed-to objectives. Basically, the planning process requires the inventory of weed infestations, the development of treatment priorities and prevention practices, and control and monitoring strategies.

Integrated Weed Management (IWM) is a holistic, *systems* approach to weed management. It involves the use of the best available management techniques to limit the impact and spread of the weed. IWM typically includes strategies for:

- Awareness and education
- Early detection and prevention of noxious weeds
- The use of all treatment "tools" such as physical, mechanical, biological, herbicides and cultural and management practices
- Restoration of weed impacted lands

Roles, Responsibilities & Organizations

Like most western states, Idaho is a complex mosaic of ownership and uses that produces a set of unique challenges for building coordinated, consistent, and effective noxious weed management programs. Noxious weed management on federal lands is governed by several federal laws that have many similarities, but some differences from the Idaho Weed Law which governs non-federal noxious weed management.

Non-federal lands

The Idaho Noxious Weeds law (Title 22, Chapter 24, Idaho Code) identifies the duties and powers of "landowners and citizens" in controlling noxious weeds, as well as state and county duties and powers in administering the law on non-federal lands. Additionally, the Idaho Noxious Weeds law identifies violations and penalties, and addresses advisory committees at the state and county level. Following is a brief summary of the "duties and powers" addressed in the Idaho Noxious Weeds law:

Landowners and Citizens: Under the Idaho Noxious Weeds law, landowners are responsible for controlling weeds on property they own or control except where the property is in an area exempted or modified from the control requirement through the designation of a "Special Management Zone". This is a provision of the Idaho Noxious Weeds law provide for situations where short-term eradication is deemed "unreasonable". Establishment of a Special

Management Zone requires a petition by the board of county commissioners and approval by the Director of the Idaho State Department of Agriculture (ISDA).

While no individual or group is able to speak for all private landowners, it is likely that private landowners will see the value of working cooperatively with county, state and federal landowners and become, or continue to be, willing participants in collaborative weed management efforts across the state.

The County: Through the Boards of County Commissioners, Idaho counties are required to "establish and maintain a coordinated program for control of noxious weeds in the county; employ a county weed superintendent..." and provide operational and educational funds for the county weed superintendent (CWS). The law also identifies required qualifications and duties of the CWS, the process for carrying out a grass roots weed control program and local enforcement provisions for non-federal lands. It addresses general auditing and accounting requirements for funds which are raised through a mill levy "not to exceed six-hundredths percent (.06%) of the market value . . . of assessed property." The law also allows counties to designate weeds as "noxious" even though they may not be on the state list.

The State: The duty of enforcing the Idaho Noxious Weeds law falls to the Director of the Idaho State Department of Agriculture. Those duties include: (1) determining which weeds are "noxious" and compiling and publishing a list of such; (2) making and publishing rules and regulations to carry out the provisions of the Idaho Noxious Weeds law; (3) employing a statewide weed coordinator; (4) publishing a list of items capable of disseminating noxious weeds and designating treatment of such articles; and (5) consulting with affected control authorities before establishing a special management zone.

The Idaho Noxious Weeds law provides for the establishment of advisory committees, both at the state and county levels. The ISDA Director utilizes a *Noxious Weed Advisory Council (NWAC)* for advice on effectively carrying out a statewide weed management program. The mission of the NWAC is as follows: *"The Idaho Noxious Weed Advisory Council provides assistance and advice to the ISDA Director for planning, coordinating and promoting weed management programs to benefit the people and resources of Idaho."*

There are other actions the ISDA Director may take to carry out an effective program. These actions include: training and education of county weed authorities and specialists; cooperating and entering into agreements with, and accepting funds from, other state and federal agencies; and taking any appropriate action necessary to control or quarantine noxious weed infestations.

Federal lands

The federal government, principally the Forest Service (FS) and the Bureau of Land Management (BLM), has a major role in the success or failure of weed management statewide. There are a host of laws that address the control and management of noxious weeds on federal lands with the principal statute being the Federal Noxious Weed Act [7 U.S.C. sections 2801-2813]. Other federal actions which address noxious weeds, to a lesser degree, include the 1990 Food, Agriculture, Conservation and Trade Act (FACTA), and Executive Order 11987.

There are 94 species officially designated as "Federal Noxious Weeds" although several plants not on the federal list are on state noxious weed lists. Both the FS and BLM have recently drafted weed management strategies: the BLM's "Partners Against Weeds" (January 1996) and FS's "Stemming The Invasive Tide"(September 1998). Both agencies, along with several other federal and state agencies and many other societies, federations, associations, councils and private companies, are participants in the "Pulling Together" National Strategy for Invasive Plant Management.

Since 1994, the U.S. Departments of Agriculture and Interior, primarily through the FS and the BLM respectively, have steadily increased the emphasis and resources given to combating the spread of noxious weeds on federal lands. Today, noxious weed management is a priority for most FS and BLM field offices although targeted funding is chronically short.

Other Weed Management Organizations

There are a number of organizations that are involved in the management of noxious weeds in Idaho. The Idaho Weed Control Association and the Idaho Association of County Weed Control Superintendents are statewide programs. The Western Weed Coordinating Committee and the Intermountain Noxious Weed Advisory Council are regional organizations which focus on weed problems in the western U.S.

Several other organizations focus their efforts towards specific noxious weeds in the state, such as the Hawkweed Action Committee; the Purple Loosestrife, Rush Skeletonweed, and Leafy Spurge Task Forces; and the Palisades Mitigation Weed Control Committee. The federal agencies have also organized several task forces and coordinating

committees. Among the more active groups is the Federal Interdepartmental Committee for the Management of Noxious and Exotic Weeds (FICMNEW).

Noxious weeds are of great concern to Idaho's agricultural industry. Various associations (i.e. crop, livestock, seed grower and water users) distribute educational materials on weed management and provide training and educational materials for their members. Other organizations, such as the Nature Conservancy, which is both a landowner and a manager of several unique Idaho properties, are strong supporters of an aggressive weed management program.

1999 STRATEGIC PLAN

I. ORGANIZATION AND LEADERSHIP

A. Inclusive, Focused and Consistent Organization

1. **Issue:** *The complex land and water ownership and jurisdictional situation in Idaho, and the different laws and rules which govern them, has been a barrier to sustained effective weed control. Landowners and managers must organize and operate in a collaborative manner to effectively deal with the significant ecological, economic and social problems resulting from the explosive spread of noxious weeds.*
 - **Actions:** The supporters of this plan agree to encourage and support the proliferation of community-based weed management organizations hereafter referred to as Cooperative Weed Management Areas (CWMAs).
 - To the extent possible, CWMAs should be developed along watershed or geographic areas rather than on a political or jurisdictional basis. Properly organized and led, CWMAs will optimize opportunities for building a coordinated and integrated weed management program across logical geographic areas.
 - Natural resource agencies and organizations will be encouraged to work cooperatively with county commissioners to provide resources and support towards the formation of CWMAs. In areas with a high percentage of federally owned lands, the FS or BLM will also be encouraged to serve as catalysts for organizing CWMAs.
 - Supporters agree to establish the Idaho Noxious Weed Coordinating Committee (INWCC) which will coordinate state level weed management programs of organizations and agencies with responsibility or interest in noxious weed management. The committee will monitor statewide weed management efforts, and through frequent interaction with state and federal agency officials, will ensure the effective coordination of a statewide program. A charter, which will be frequently reviewed and adjusted as needed, will be developed to establish the responsibilities and role of the committee. Effective and well-coordinated statewide weed management programs will be a primary goal of the committee.

B. Leadership and Support of CWMAs in Strengthening Local Efforts

1. **Issue:** *There are many organizations whose members possess leadership skills and technical expertise that must be tapped to build and strengthen grass-roots weed management efforts.*
 - **Actions:** Identify and organize interagency leadership skills that are available and can be utilized by cooperators across the state. These individuals can provide leadership and assistance in the formation of CWMAs. Agency land managers can increase their involvement and support to CWMAs, yet retain their unique mission and management objectives.

II. COORDINATION, COOPERATION AND PARTNERSHIPS

A. Effective and Consistent Coordination and Cooperation

1. **Issue:** *As the noxious weed problem becomes more widespread and acute, the need for effective coordination is critical. Scarce resources can not be wasted by duplication of effort or by the failure to apply measures across ownership and jurisdictional boundaries.*
 - **Actions:** The supporters, through the Idaho Noxious Weed Coordinating Committee (INWCC), will strive to reduce institutional, jurisdictional and political barriers that inhibit effective on-the-ground weed management. The committee will also seek to strengthen the basic strategic and tactical elements of an effective program at the state, regional, and national levels.
 - A resource directory will be developed listing individuals from government agencies, universities, agricultural organizations, task force groups, weed management associations, and conservation organizations with particular weed management expertise and skills. The directory will be made available to local landowners

and groups as a resource for organizing CWMA's, providing technical and leadership training, and assistance in resolving weed issues.

- The Idaho Noxious Weed Coordinating Committee (INWCC) will seek opportunities to focus attention and resources toward priority weed management needs. The INWCC will also periodically review and seek to integrate the objectives of agency and interagency weed management strategies (i.e., BLM's *Partners Against Weeds* action plan, the FS's *Stemming The Invasive Tide*, and the national interagency strategy, *Pulling Together*) into Idaho's weed management strategy.

B. Develop and Expand Interest Group Partnerships

1. **Issue:** *Noxious weeds tend to be erroneously viewed as an agricultural problem. Other interest groups which may have substantial expertise and resources are not often included in noxious weed management efforts, particularly at the local level.*
 - **Actions:** Actively seek involvement from groups and organizations such as garden clubs, native plant societies, conservationists, realtors, hunters, fishermen, recreationists and foundation groups, to expand the available leadership and provide greater opportunities for them to be involved in CWMA steering committees. INWCC shall actively seek partnerships at state, regional and national levels with these groups.
 - Establish partnerships with groups such as 4H, FFA, Boy Scouts and Girl Scouts and with elementary, secondary and high schools to develop future leadership and to add a significant resource pool to local weed management capability.

III. AWARENESS AND EDUCATION

A Expand Understanding of Impacts Associated with Noxious Weeds

1. **Issue:** *Few citizens in the non-agricultural sector understand how the spread of noxious weeds negatively impacts the environment, economy, and the outstanding natural resources so important to them.*
 - **Action:** Develop and disseminate information about the nature, characteristics and impact of noxious weeds on the environment, economy and quality of life in Idaho. This information will also be incorporated into information about related issues, such as threatened and endangered species, water quality and wildfire.
 - Integrate information about the impact of noxious weeds and the need to manage them into public education environmental curricula. State and regional cooperators will lead this effort because of the cost and complexity of delivering a quality, appealing statewide program.
 - Emphasize the need for prevention practices through awareness and education programs. Develop educational pamphlets, brochures and workshops that address topics such as using certified weed-free seed and forage, animal grooming to reduce the risk of transporting noxious weed seed, cleaning and washing construction equipment, avoiding the use of gravel, fill or top soil contaminated with weed seed, and maintaining high human-use areas in a weed-free condition.
 - Provide weed identification training to citizens and landowners to raise awareness about weeds commonly found in their area.
2. **Issue:** *Raising public awareness and understanding requires a well-planned, well-funded and long-term program. To capture public interest and mobilize citizens to stop the spread of weeds, there is a critical need to attract and hold the attention of the local, state and national media.*
 - **Actions:** Cooperatively utilize professional public information specialists to develop a statewide information program and coordinate television spots, ad campaigns and public service announcements.
3. **Issue:** *Increased actions from local, state and national officials in dealing with weeds first requires greater awareness and understanding from Idaho citizens and landowners. Some Idaho legislators have little understanding of the risks associated with noxious weeds and the resources needed to effectively manage weeds across Idaho.*
 - **Actions:** Create more effective informational brochures, videos and educational materials and widely distribute them. Develop briefing packages and presentations for national, state, and local officials.
 - Encourage cooperating county, state and federal land management agencies to highlight and recognize local weed management successes and achievements.

B Upgrade Weed Management Continuing Education

1. **Issue:** *There is a need to provide frequent, consistent and up-to-date training to weed management professionals and cooperators because of constant changes in weed management tools and techniques and changes in weed management personnel.*
 - **Actions:** Review training opportunities through the INWCC, Idaho Weed Control Association, Idaho Association of Weed Control Superintendents, and other interested groups. Based on their review and assessment, and with the support of the University of Idaho Extension educators, training curricula will be broadened and made more available to weed workers.
 - Through INWCC, develop ad hoc Training Teams that can respond to local requests for specific assistance and training. Topics could include organizing CWMA's, developing integrated weed management plans; budgeting and record keeping; mapping, monitoring and assessment; managing bio-control agents; and land restoration techniques.

IV. FUNDING AND RESOURCES

A. Obtain Adequate Funding

1. **Issue:** *Funding for all elements of integrated weed management is chronically short statewide. The current rate of spread of major weeds and the introduction of new species far outstrips our ability to contain them. The problem is most acute in areas of the state with sparse populations, small private land bases, and low tax bases. State and federal funds and resources are far from adequate to deal with the scope of the problem across millions of acres of land in Idaho.*
 - **Actions:** Encourage and support state and private funding at levels that are commensurate with the size of the problem. The supporters will encourage counties to finance an active participatory weed program under the direction of a well-qualified, full-time weed superintendent.
 - Through INWCC, encourage and support: (1) increases in agency budgets specifically targeted for managing noxious weeds on federal lands and (2) major budget increases or legislative initiatives to accelerate funding for applying integrated weed management and for research and technology transfer.
 - INWCC will work with federal, state and county agencies to: (1) allocate greater resources to noxious weed management; (2) create more field positions dedicated to weed management; and (3) provide cooperative funding for urgently needed expertise such as a biological control coordinator and a GIS mapping coordinator.
 - Weed organizations will maintain the management skills to assure accountability of public funds as interagency programs and grants are implemented.

B. Expand the Use of Incentives to Fund Effective Weed Programs

1. **Issue:** *There is a lack of consistency in the implementation of weed management programs at all levels. Proven methods and techniques for building strong programs are not widely followed.*
 - **Actions:** Develop a comprehensive cost-share program to encourage landowners, local officials, and weed managers to develop and implement quality programs. Priority for cost-share funds will be given to groups that meet the following "minimum" criteria:
 - Established Cooperative Weed Management Area (CWMA)
 - Developed Integrated Weed Management Plan
 - Approved Cooperative Agreements
 - Active Steering Committee/Citizen involvement: Sound fiscal and accounting practices and programs are under the direction of a qualified weed management superintendent
 - Make periodic field reviews of projects and programs to ensure that public funds are going for the intended purpose and that progress is occurring. Review budgets and perform periodic audits to ensure fiscal integrity in the use of public funds.
 - Provide awards and recognition for weed professionals and landowners as incentives to build and maintain an effective weed management program.

- Provide specific incentives and awards to landowners and managers for actually eradicating newly introduced weeds. Encourage county weed authorities to develop rewards for the discovery of new invaders.

C. Expand the Use of Cooperative Agreements and Resource Sharing

1. ***Issue:*** *Because of limited resources, most counties and agency field offices are unable to independently acquire and maintain modern weed control and mapping equipment, computers and software, and the seasonal workers necessary to sustain an effective management program.*
 - ***Action:*** Facilitate and encourage the development of cooperative agreements for sharing skills and resources. This could include the sharing of personnel, equipment, computer technology, chemicals, bio-control agents, inventory and monitoring data, and educational materials. Cooperators will also share skills of available experts and technicians, and jointly sponsor training and informational meetings.
 - Supporters will cooperatively work to eliminate agency and organizational barriers that decrease or limit the efficient use of skills and resources.

V. INVENTORY, MAPPING AND MONITORING

A. Locate and Map Noxious Weed Infestations

1. ***Issue:*** *Noxious weed infestations are not consistently identified and delineated. Complete up-to-date inventories displaying the distribution and severity of weed infestations are available in only a few areas. Knowing where weeds are located is paramount to: (1) raising public awareness; (2) generating support and funds for quality programs; (3) developing effective integrated management plans with specific control actions; and (4) assessing the economic and social impact of weeds.*
 - ***Action:*** Encourage and support development of integrated weed management plans with an effective inventory which provides the ability to:
 - identify and record the location of noxious weeds
 - calculate the total number of acres infested with each noxious weed on the state list
 - determine the rate of spread for each weed by comparing inventories from year to year
 - Cooperatively review inventory/mapping procedures and database structure used across the state to assess the compatibility of existing programs. Adopt or develop a compatible inventory and information system with a minimum set of standardized protocols which can be used by federal, state and county agencies involved in the management of noxious weeds.
 - Develop a noxious weed database for all lands across Idaho. Utilize existing technology such as Global Positioning Systems (GPS), remote sensing and Geographic Information Systems (GIS) to efficiently collect, store, retrieve, and analyze and display noxious weed information.

B. Develop a Statewide Noxious Weed Monitoring Program

1. ***Issue:*** *There is little reliable data regarding the success or failure of on-the-ground weed management efforts. There is seldom any baseline information available on which to make evaluations. Since success depends on achieving the objectives in strategic plans and integrated weed management plans, adequate **outcome data** and information must be available at all levels.*
 - ***Action:*** Encourage the use of an effective monitoring and evaluation system that can be integrated into local and state programs. As a minimum the system should be capable of determining: (1) weed populations trends; (2) effectiveness of decisions, priorities and management strategies; (3) effectiveness of treatment actions; (4) distribution of potential invaders adjacent to the state; and (5) the "Measures of Success" or expected outcomes of a coordinated weed management program.

VI. ASSESSMENTS AND ADAPTIVE PLANNING

A. Integrate Weed Management into Resource Management Activities

1. **Issue:** *Although considerable progress is occurring, weed management is still is mostly viewed professionally as a distinct activity or "program" rather than an integral part of natural resource management activities such as outdoor recreation, grazing, timber, fire, wildlife, wilderness, transportation and urban area management.*
 - **Actions:** Work through individual agencies and customers, units of government, INWCC and CWMAs to ensure that risk assessments are included in all proposed projects and actions that have the potential to disturb habitats susceptible to noxious weeds.
 - Through IWCC, develop a standard set of protocols for risk assessments that can be used by federal, state and local land management agencies.
 - Encourage managers to incorporate effective weed management measures in land use, resource development, and restoration plans, or in any activity that may involve land surface disturbance.

B. Develop an Early Detection System for Idaho

1. **Issue:** *Early detection of newly arrived noxious weeds is a critical element of **integrated weed management**. Application of early detection programs has been little used across the state.*
 - **Actions:** Develop a cooperative management and communication process that will facilitate the early detection and quick eradication of newly arrived weeds..
 - Communicate regularly with surrounding states to identify newly discovered or expanding weed species that pose the greatest risk for expansion in Idaho.
 - Develop and publish a "hot list" of the potentially most dangerous weeds and encourage active reconnaissance and early intervention. Distribute "alerts" with weed photographs and biological data.
 - Ensure that all integrated weed management plans contain provisions and mechanisms for early detection and monitoring of newly introduced weeds. Stress the need for immediate, decisive action for new discoveries.
 - Cooperatively create a rapid response system for treating new invasive weeds. The purpose of the response system will be to make interagency resources available to outline steps for treating and eradicating newly discovered weeds within one year of detection.

C. Provide Statewide Weed Management Program Direction

1. **Issue:** *Program priorities and direction at the state level are important management elements that can compliment local programs.*
 - **Actions:** Through INWCC, evaluate predictive models such as the Montana INVADERS database and other tools that can be used at the local level to: (1) assess the vulnerability of specific habitats and areas to approaching exotic weeds; and (2) assess general population trends and potential expansion for invasive species.
 - Clarify the criteria and process used to designate noxious weeds. Use an adaptive approach with an objective rating system to determine if weeds should be added or removed from the noxious weed list. Ensure that the designation procedure is compatible with the early detection/eradication strategy.
 - Cooperatively develop a set of recommended statewide prevention practices. Work towards broad application of these practices across all lands. Encourage CWMA cooperators to develop effective prevention practices and guidelines in local and regional management plans.
 - Develop a set of procedures for determining invasive weed priorities that will help in focusing and allocating interagency resources.

VII. RESEARCH AND TECHNOLOGY DEVELOPMENT

A. Obtain Support for Accelerated Research and Technology Development

1. **Issue:** *Inadequate public understanding of the scope and severity of the noxious weed problem and the concurrent lack of funding has delayed needed research, particularly for invasive perennial weeds on non-cultivated lands.*
 - **Action:** Help all Idaho citizens and landowners understand the impacts of the explosive spread of noxious weeds and the consequences for failure to allocate sufficient resources to slow and stop their spread.
 - Assist in developing applied research priorities and direction that will contribute to an effective statewide weed program. Encourage congressional representatives and state legislators to support increased budgets for university and agency noxious weed research and technology development.

VIII. COMPLIANCE AND ENFORCEMENT

A. Seek Voluntary Compliance with Weed Laws

1. **Issue:** *Compliance of landowners and managers with existing state and federal weed laws is inconsistent from property to property and from area to area.*
 - **Action:** Encourage the organization of Cooperative Weed Management Areas across the State and the application of Integrated Weed Management Plans. Help ensure that landowners and managers: (1) are aware of the ecological and economic consequence of failing to control noxious weeds; (2) understand and have available the use of the tools or methods to effectively manage weeds; (3) fully understand their responsibility under the law to control noxious weeds; and (4) have the necessary resources to do so.
 - The development of CWMA's and effective use of integrated weed management plans will bring greater awareness and support from a majority of citizens and landowners. Public support will rise with an assurance that public funds are used effectively. Eventually, increased resources will be available for the research and development of more effective weed management tools and techniques, along with incentives for preventing or eradicating noxious weeds.

B. Fair and Consistent Enforcement of Noxious Weed Laws

1. **Issue:** *A large segment of the public is unaware of the impacts of noxious weeds and few landowners and jurisdictions have effective plans in place for managing weeds. Consequently, there is little public interest and usually little public pressure on managers and control authorities to enforce weed laws. Typically, there are few consequences to them when they fail to do so.*
 - **Action:** Educate landowners and managers of their responsibility under existing laws. Through implementation of strategic goals, use CWMA successes to gain peer group confidence of their ability to comply, then fairly and consistently enforce state and federal laws.
 - Utilize the provision of the Idaho Noxious Weeds law for establishing Special Management Zones to modify the "eradication" requirement of the law when there is consensus among county or CWMA cooperators that eradication, at least in the short term, is impossible or infeasible.
 - Cooperatively review the Idaho Noxious Weeds law, as well as federal laws, rules, and policies to ensure that they are (1) up-to-date and relevant; (2) mutually supportive; and (3) provide effective processes and accountability.