



Socorro County's Strategic Plan
for
Managing Invasive/Noxious Weeds

Socorro County Noxious Weed Committee
Socorro Soil & Water Conservation District
Bureau of Land Management-Socorro F.O.

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STATEMENT OF ENDORSEMENT AND SUPPORT

The participants in the Socorro County 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 County of Socorro.

The participants in this strategic plan recognize that through the development of a countywide 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:

- Socorro Soil & Water Conservation District
- Bureau of Land Management
- USDA-NRCS
- Middle Rio Grande Conservancy District

- Sevilleta National Wildlife Refuge
- Bosque del Apache National Wildlife Refuge
- NM State Forestry
- NM State Land Office
- Magdalena Ranger District
- Bureau of Reclamation
- County of Socorro
- City of Socorro
- NM Highway Department
- NM Department of Agriculture
- NM Bureau of Mines and Mineral Resources
- NMSU Cooperative Extension Service
- The Ladd S. Gordon Waterfowl Complex (Bernardo and La Joya units)
- Save Our Bosque Task Force
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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 Socorro County Strategic Plan for Managing Noxious Weeds addresses six broad issues critical in building a strong and successful countywide noxious weed management program.

- I. Organization and Leadership
 - a. Create an inclusive, focused and consistent organization.
- II. Coordination, Cooperation and Partnerships
 - a. Seek effective and consistent coordination and cooperation.
 - b. Expand partnerships.
- III. Awareness and Education
 - a. Expand understanding of impacts of noxious weeds.
- IV. Funding and Resources
 - a. Obtain adequate funding.
 - b. Expand the use of incentives to fund effective weed programs.
- V. Inventory, Mapping and Monitoring
 - a. Locate and map noxious weed infestation.
 - b. Develop a countywide noxious weed monitoring program.
- VI. Assessments and Adaptive Planning
 - a. Integrate weed management into resource management activities.
 - b. Develop an early detection system for Socorro County.

The purpose of the Strategic Plan is two fold: (1) to heighten the awareness among all citizens of the degradation brought to New Mexico lands and waters by the explosive spread of non-native weeds and, (2) to bring about greater countywide 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 formation of a 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 New Mexico.

An Implementation Plan 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. These will be specific for each governmental agency involved in our strategic plan.

BACKGROUND

Socorro County encompasses approximately 4,289,890 surface acres. Thirty-two percent (1,385,940 acres) is privately owned. Nearly fifty-three percent is federally owned and managed, primarily by the U.S. Department of Interior's Bureau of Land Management (926,070 acres) and Fish and Wildlife Service (328,260 acres); by the U.S. Department of Agriculture's Forest Service (614,010 acres); and by the U.S. Department of Defense-White Sands Missile Range (428,710 acres). The State of New Mexico owns and manages twelve percent (540,110 acres).

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 Socorro County is no exception. In recent years, Socorro County has seen an explosion of Perennial pepperweed and Russian knapweed. 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.

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. The true costs to Socorro County 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, and property value, the cost to Socorro County is high.

Currently there are not enough dedicated resources to effectively manage the noxious weed problem in Socorro County. 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, monitoring of weed-infested areas must continue and the weed-infested area 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) have been widely recognized as a model for organizing an effective weed management program at the local level. Our CWMA has brought together interested and concerned parties in our County 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.

Our 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, our CWMA attempts to blur or eliminate those boundaries through program cooperation and integration.

Integrated Weed Management (IWM) planning can proceed with selected management strategies developed by the Socorro Noxious Weed Committee. Basically, the planning process requires the

inventory of weed infestations, the development of treatment priorities and prevention practices, and control and monitoring strategies.

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
- Monitoring of infested areas
- Monitoring for new invasive/noxious species
- Restoration of weed impacted lands

2001 STRATEGIC PLAN

I. ORGANIZATION AND LEADERSHIP

A. Inclusive, Focused and Consistent Organization

Issue: The complex land and water ownership and jurisdictional situation in Socorro County, and the different laws and rules that 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 community-based weed management organization hereafter referred to as Cooperative Weed Management Area.

II. COORDINATION, COOPERATION AND PARTNERSHIPS

A. Effective and Consistent Coordination and Cooperation

Issue: As the noxious weed problem becomes more widespread and acute, the need for effective coordination is critical. Scarce resources cannot be wasted by duplication of effort or by the failure to apply measures across ownership and jurisdictional boundaries.

Actions: The supporters, through the Socorro County Noxious Weed Committee (SCNWC), 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 within our County.

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 skill. The directory will be made available to local landowners and groups as a resource for providing technical assistance in resolving weed issues

The Socorro County Noxious Weed Committee (SCNWC) will seek opportunities to focus attention and resources toward priority weed management needs. The SCNWC will also periodically review and seek to integrate the objectives of agency and interagency weed management strategies into Socorro County's weed management strategy.

B. Development and Expand Interest Group Partnerships

Issue: Noxious weeds tend to be erroneously viewed as an agricultural problem. Other interest groups who 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 the SCNWC.

III. AWARENESS AND EDUCATION

A. Expand Understanding of Impacts Associated with Noxious Weeds

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 New Mexico. 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.

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.

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 an information program and public service announcements.

Issue: Increased actions from local, state and national officials in dealing with weeds first requires a greater awareness and understanding from Socorro County citizens and landowners. Some New Mexico legislators have little understanding of the risks associated with noxious weeds and the resources needed to effectively manage weeds across New Mexico.

Create more effective informational brochures, videos and educational materials and widely distribute them. Develop briefing packages and presentation 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.

IV. FUNDING AND RESOURCES

A. Obtain Adequate Funding

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 New Mexico.

Action: Encourage and support state and private funding at levels that are commensurate with the size of the problem.

Through SCNWC, 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.

SCNWC will work with federal, state and local 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 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

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:

- Develop Integrated Weed Management Plan
- Active Steering Committee/Citizen involvement: Sound fiscal and accounting practices and programs are under the direction of a qualified weed management superintendent.

V. INVENTORY, MAPPING AND MONITORING

A. Locate and Map Noxious Weed Infestations

Issues: 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 that 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 Socorro County 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 that 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 Socorro County. 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 Countywide Noxious Weed Monitoring Program

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.

Actions: 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 county and 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

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 and the SCNWC to ensure that risk assessments

are included in all proposed projects and actions that have the potential to disturb habitats susceptible to noxious weeds.

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 Socorro County

Issue: Early detection of newly arrived noxious weeds is a critical element of integrated weed management.

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 counties to identify newly discovered or expanding weed species that pose the greatest risk for expansion in New Mexico.

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.



Appendix 1

Sevilleta National Wildlife Refuge Integrated Pest Management Plan



Appendix 2

NMSHTD Environmental Section- Noxious Weed Management Guidelines- for Project Development



Appendix 3

BLM Noxious Weed Management Guidelines



Appendix 4

Socorro Soil & Water Conservation District- Noxious Weed Support Guidelines

Socorro Soil & Water Conservation District Noxious Weed Support Guidelines

The Socorro SWCD's role is to take available technical, financial and educational resources, whatever their source, and focus or coordinate them so that they meet the needs of the local land manager with conservation of soil, water and related natural resources. We have the responsibility to initiate and take a pro-active role in education and activities that insure the conservation of the natural resources of our District and to assist landowners in implementing natural resource conservation and development plans

Noxious weeds have a significant impact on agriculture, both farming and ranching. The Socorro SWCD deems it necessary to coordinate efforts to reduce the spread and invasion of these weeds, and to manage and eradicate these species whenever possible. The Socorro SWCD can and will actively coordinate weed efforts between land management agencies and private landowners. The Socorro SWCD can use Federal dollars, State dollars and provide in-kind matching funds for a weed program.

The Socorro SWCD will co-chair the Socorro Noxious Weed Committee. This person will also serve as the Socorro County Noxious Weed Coordinator. The Socorro SWCD will also provide a Range Technician/Noxious Weed Specialist for mapping and on-the-ground treatment of these weeds. Personnel will coordinate the efforts of all the agencies involved in this program.



Appendix 5

USDA-NRCS
Noxious Weed Plan