

LOS ALAMOS COUNTY
PARKS, RECREATION AND OPEN SPACE DIVISION
INTEGRATED PEST MANAGEMENT PLAN

I. SCOPE AND APPLICATION

This Integrated Pest Management plan (“IPM” or “Plan”) shall apply to all pest and vegetation control activities and pesticide use, as defined below, in County parks and open spaces as maintained by the Los Alamos County Parks, Recreation and Open Space Division (PROS) staff and contractors.

II. PURPOSE

This Plan is intended to provide a basis for pest and vegetation management that will safeguard public health, as well as protect water quality, endangered and threatened species, and State, County, and local species of concern. The goal of the Plan is to utilize the most environmentally sound approaches to pest and vegetation management, and to reduce and eliminate, where possible, the volume and toxicity of chemical control treatments.

The objectives of this Plan are to:

- require planning and development of an IPM program for PROS;
- require that only trained and licensed PROS staff select and apply pesticides; and
- provide procedural guidelines for implementation.

III. DEFINITIONS

A. Integrated Pest Management or “IPM”: A decision-making process which selects, integrates, and implements pest control strategies to prevent or control pest populations. IPM uses a "whole systems approach," looking at the target species as it relates to the entire ecosystem. In choosing control strategies, minimal impacts to human health, the environment, and non-target organisms are considered.

B. Pest: Any insect, rodent, nematode, fungus, weed, or any other form of terrestrial or aquatic plant or animal life or virus, bacteria, or other micro-organism that is undesirable, injurious, threatening, or otherwise determined to be a pest by the County.

C. Pesticide: Any substance or mixture of substances intended for destroying or repelling any pest. This includes without limitation fungicides, insecticides, nematocides, herbicides, and rodenticides and any substance or mixture of substances intended for use as a plant regulator, defoliant, or desiccant. The County will use only U.S. EPA approved and registered pesticides pursuant to the Federal Insecticide, Fungicide, and Rodenticide Act (“FIFRA”) as well as the State of New Mexico Pesticide Control Act, NMSA 1978, § 76-4-1 et seq.¹ The following products are not pesticides: fertilizers and plant nutrients.

¹ See generally <https://www.epa.gov/pesticides> and <http://www.nmda.nmsu.edu/pesticides>.

D. Restricted Use Pesticide or “RUP”: Pesticides that the U.S. EPA or State agency classifies as the most acutely toxic pesticides or those needing to be applied with special care and which requires that the RUP may only be bought and applied only by a certified applicator or someone working under his or her direct supervision. RUPs are not available for purchase or use by the general public.

IV. OBLIGATIONS

The PROS’ Parks Program and Open Space Program (“Programs”) conduct pest control operations that use or potentially use pesticides.

- A. Integrated Pest Management Plan.** Each of these Programs, and any others using pest control methods in the future, shall use the procedures outlined in this plan to develop specific Integrated Pest Management Plans. Only PROS staff licensed to apply Restricted Use Pesticides (“RUP”) shall apply RUPs.
- B. Record-keeping and Evaluation.** Each Program shall keep accurate records of all IPM treatments used, as specified by New Mexico Department of Agriculture requirements.

V. INTEGRATED PEST MANAGEMENT (IPM) PROCEDURE

The Plan acknowledges that many pesticides are or may be potentially hazardous to human, animals, and the environment. Therefore, whenever possible, reasonable non-pesticide alternatives shall be given preference over chemical controls by following the IPM procedure. Program staff will evaluate alternatives to chemical treatment including the cost-effectiveness of the treatments. For all pest control activities, the IPM procedure outlined below shall be followed.

- A. Initial Data Collection, Mapping and Monitoring.** Each Program considering pest control measures shall collect baseline data on the pest ecosystem(s) to determine pest population(s) occurrence, size, density and presence. Monitoring and evaluation are methods used for determining pest management priorities. Programs shall monitor infestations or pest populations and evaluate treatments over time to assess the effectiveness of various treatment strategies and their effects on target and non-target organisms. Considerations shall first include non-treatment options including weed abatement, rodent or pest harborage, facility or ground cleaning, trash and debris removal, absence or presence of lighting, etc.
- B. Establishing Action Threshold Levels.** To determine if pesticide treatment is warranted, an acceptable action threshold level of treatment for each target pest and site should be established. Each program shall monitor the threshold levels for common pests, determined by individual work groups. In some instances, treatment may be required or limited by state or federal law. The assessment will be based on, at minimum, the following:
 1. The tolerable level of environmental, aesthetic and economic damage as a result of the pest population(s) and the tolerable level of risk to human health as a result of the pest population(s);

OR

2. The size or density of the pest population that must be present to cause unacceptable environmental, aesthetic and/or economic damage; and the size, density and type of pest population that must be present to create a human health risk.

C. Treatment Selection Criteria. Upon determining that treatment is necessary, the following criteria should be used to help select the appropriate IPM treatment strategy:

1. Least-disruptive of natural controls;
2. Least-hazardous to human health;
3. Least-toxic to non-target organisms;
4. Least-damaging to the local and non-local environments;
5. Most likely to produce a permanent reduction in the environment's ability to support target pests; and or
6. Cost-effectiveness in the short- and long-term.

D. Treatment Strategies. Each Division Program shall make its own determination about appropriate and effective pesticide treatments, based on site-specific requirements. Commitment to the most environmentally sound approach is expected, with non-chemical methods considered first.

Prevention, cultural control, mechanical control, biological control and chemical control are the techniques used in IPM. In general, a combination of treatments is more effective than a single approach, however more is not often the best. Programs are encouraged to seek out and experiment with registered and innovative IPM treatments (and combinations of treatments) and share this information within the Program and County. The following treatments are listed in the order in which they should be executed:

1. Prevention. This is the most effective pest management strategy. By reducing the capacity of the ecosystem to support target pest populations through design and appropriate management, the opportunities for pest establishment can be reduced or eliminated.

- a) Use strategies that reduce the preferred harborage, food, water or other essential requirements of pests.
- b) Use weed-free materials for road and trail construction and maintenance.
- c) Use landscape and structural design that is appropriate to the specific habitat, climate and maintenance the area will receive.
- d) When designing projects, consider the potential impacts of pests and mitigate through the use of appropriate landscape design (water requirements, weed barriers, etc.).

2. Cultural. Cultural control is the use of management activities that prevent pests from developing due to enhancement of desired conditions. Specific examples are the following:

- a) Selection and placement of materials that provide life-support mechanisms for pest enemies and competitors.
- b) Vegetation management including irrigation, mulching, fertilization, aeration, seeding, pruning and thinning.
- c) Barriers and traps.

3. Mechanical. Mechanical control is accomplished by using physical methods or mechanical equipment to control pest infestations such as: a) mowing or weed-whipping; and/or b) hand-pulling of weeds.

4. Biological. Biological controls include the introduction or enhancement of natural enemy populations to target pests, including:

- a) Conservation and augmentation of the pest's natural enemies
- b) Introduction of host-specific enemy organisms

5. Chemical. Chemical control of pests is accomplished by using chemical agents or compounds that are registered as pesticides with both State and federal agencies. All pesticides shall be treated as *potentially* hazardous to human and environmental health and only duly licensed, trained, or certified Program staff shall apply such chemicals. Other considerations include, but are not limited to:

- a) The type, methods and timing of chemical treatment shall be determined after consideration has been given to protection of non-target organisms (including threatened or endangered species), protection of water quality, pest biology, soil types, anticipated adverse weather (winds, precipitation, etc.) and temperature.
- b) Initial review of potential chemicals shall begin with the least toxic compounds or mixtures.
- c) If, after a thorough evaluation of alternatives, effective or practical chemical control may be applied by the Program staff.
- d) Staff will review the information available on potential chemicals for persistence in the soil and the potential impacts from chemical persistence in the environment. These factors will be considered along with the potential for more frequent application of chemicals that do not persist in the environment.
- e) Potential chemical approaches may include:
 - (1) Pheromones and other attractants to confuse pests and/or act as bait;
 - (2) Insecticidal soaps;
 - (3) Juvenile hormones that arrest pest development;
 - (4) Repellants;
 - (5) Sterilants;
 - (6) Fumigants;
 - (7) Combinations of above (baits with poisons);
 - (8) Herbicides, insecticides.
- f) All pesticides shall be applied in conformance with label specifications and all applicable federal, state and county laws, regulations and ordinances.
- g) All pesticide applications shall comply with the appropriate pre and post notification requirements.
 - (1) Boom spraying application, sports fields' notification will be posted on line at least twenty-four (24) hours in advance for all County Parks and Open Space.
 - (2) Spot spraying, hand-wicking applications will be marked with yellow pesticide application flags at time of spot spraying and removed after twenty-four (24) hours.

- E. Education.** Education is a critical component of an IPM program. The Division's Licensed Pesticide Applicators shall attend annual continuing education events and classes to maintain their licenses.

VI. CONTRACTOR RESPONSIBILITIES & REQUIREMENTS

All contractors working for the Division are required to abide by the Division's IPM Plan or with any further instructions from Division management or supervisors.