

## **Santa Barbara County Integrated Pest Management Strategy**

### **Mission Statement**

It is the mission of the County of Santa Barbara to promote environmentally sensitive pest management while preserving County assets and protecting the health and safety of the public and our employees. As part of this mission all costs and impacts associated with pesticide use, including community and environmental health, will be considered. The following IPM Strategy describes the County's goals and demonstrates how the County will achieve these goals.

### **Purpose**

The purpose of this IPM Strategy is to ensure that County application of pesticides is done in a manner that protects and enhances our region's natural resources and public health; that County use of pesticides is a model of environmental stewardship in the eyes of the public; that the County establishes a leadership role in developing both aesthetically pleasing and ecologically sensitive landscapes and structures; and that there is a consistent standard of environmental stewardship observed by County departments managing structures, landscapes, and other grounds. The IPM Strategy also provides for periodical re-evaluation of pesticides used by County employees, to phase out products that pose human health or environmental risks, and to promote the use of nonhazardous and/or reduced risk alternatives by the County that are protective of human health and the environment. The IPM Strategy will require updates which outline the pesticides that are being used in all County departments and will allow employees involved in pesticide use to make conscious decisions about the pesticides selected for use, to use pesticides wisely, and to make full use of pesticides purchased.

### **Background**

The County of Santa Barbara's Green Team was developed in 1999 to promote environmental stewardship in County operations. In June 1999 the County Green Team was asked to initiate a process by which the County could address its pesticide use. A Pesticide Sub-committee was formed with representatives from the Public Works Department, the General Services Department, the Parks Department, and the Agricultural Commissioner's Office. Representatives from these County Departments have developed an Integrated Pest Management Strategy in support of the goal of reducing the potential impact of pesticide use on our community. The Integrated Pest Management (IPM) Strategy promotes the design, construction and maintenance of County landscapes and structures in a way that protects and enhances the region's natural resources and public health. In addition, the IPM Strategy will provide a framework for evaluating pesticides used by the County.

### **Departments Affected**

All County departments that are responsible for managing construction projects; managing County-owned structures, grounds, and landscapes; and purchasing and using pesticides are affected. In addition, all County contractors that are applying pesticides on the County's behalf will be required to subscribe to the IPM program.

## **Definitions**

Integrated Pest Management: A coordinated decision making and action process that uses the most appropriate pest control methods in an environmentally and economically sound manner to meet County pest management objectives. The elements of integrated pest management include:

- a. Preventing pest problems;
- b. Monitoring for the presence of pests and pest damage;
- c. Establishing the density of the pest population, which may be set at zero, that can be tolerated or correlated with a damage level sufficient to warrant treatment of the problem based on health, public safety, economic or aesthetic thresholds;
- d. Treating pest problems to reduce populations below those levels established by damage thresholds using strategies that may include biological, cultural, mechanical and chemical control methods and that shall consider human health, ecological impact, feasibility and cost effectiveness; and
- e. Evaluating the effects and efficacy of pest treatments.
- f. Pest control materials are selected and applied in a manner that minimizes risks to human health, beneficial and nontarget organisms and the environment.

Sustainable Design, Construction, and Maintenance: Principles, materials, and techniques that conserve natural resources and improve environmental quality throughout the life cycle of the landscape and its surrounding environment.

Landscapes: Grounds that are actively managed such as parks, library lawns, right-of-ways, in-town watersheds, etc., but not large tracts of forestland.

Hazardous Material: A chemical or mixture that can pose a physical hazard, health hazard, or environmental hazard and that is regulated under the law to control its harmful effects. This definition is not intended to be rigid or legalistic because all materials regulated in this manner merit special attention and consideration by the County under this IPM Strategy.

Pesticide: Any substance or mixture of substances which is intended to be used for defoliating plants, regulating plant growth, or for preventing, destroying, repelling or mitigating any pest; includes spray adjuvants, insecticides, fungicides, herbicides, acaricides, avicides, rodenticides, bactericides, growth regulators, nematocides, etc.

## **Part I. Purchasing**

Pesticides shall be used, stored, transported, and disposed of in compliance with all applicable laws and regulations. In designing, constructing, and maintaining County facilities, and in designing and conducting the County's operations, departments shall give priority to minimizing the need for pesticides. Consideration will be given to options such as process changes, product changes, improved operations and maintenance, and any physical, mechanical, cultural, biological, and educational tactics that can reduce pesticide use. When a pesticide is needed, the amount purchased and used shall be the smallest quantity practical. Recognizing that the purchase price of a product does not reflect its true cost to the County, use of large quantity discounts, bulk container purchases or minimum order requirements that exceed departmental needs should be discouraged when procuring pesticides. County departments shall participate in annual interdepartmental efforts to summarize all pesticides used in the previous calendar year and to develop and maintain a Countywide database on pesticide usage (See IPM Strategy Steps 3 and 4). Upon completion of each annual Countywide summary of pesticide usage, the criteria

outlined in Attachment C1 shall be used to designate certain pesticides for phase-out from County inventories and to limit the purchase of new products, if necessary.

Any pesticide that is not listed on a department's summary shall not be purchased or used by that department without a recommendation by a Pest Control Advisor (PCA) or Structural Pest Control Operator (PCO) and approval by the Agricultural Commissioner's Office. In addition, review by the Grounds Management Committee (GMC) (See IPM Strategy Step 1 and 9) at the next quarterly GMC meeting is required. When selecting replacements for pesticides targeted for phase-out (See IPM Strategy Steps 5-7), and in selecting new products for use (See IPM Strategy Steps 9 & 10), departments shall place highest priority on protecting worker health and safety, protecting public health, and protecting the environment. The next level of priority to be considered includes product effectiveness and cost effectiveness. It is recognized that phase-out of those pesticides may not be practical when pesticides serve functions vital to the County's operations (example: levees and dams), in instances where the use of the pesticide is the least damaging alternative and where there are no satisfactory replacements. In those cases, departments shall develop and implement best management practices to minimize the quantity of pesticide required, protect worker health and safety, and minimize release of pesticide to the environment. When appropriate, excess pesticide should be returned to the supplier or offered for use by other County departments.

## **Part II. Application**

In planning, siting, designing, constructing, and maintaining grounds, landscapes, and structures owned and managed by the County, site objectives shall include management and maintenance practices that protect and enhance natural ecosystems. County grounds designers, planners, managers, crews, and their contractors shall give priority to:

- A. Practicing the principles of Integrated Pest Management including the reduced use of pesticides (see IPM Strategy Implementation Plan);
- B. Selecting and using fertilizers that minimize negative impacts on soil organisms and aquatic environments;
- C. Designing new and renovating existing landscaped areas to suit the site conditions and with sustainable maintenance in mind.

For example:

- Using proper soil preparation and amendment;
- Specifying weed-free soil amendments;
- Using mulches to control weeds, conserve water, and build healthy, biotically diverse soils;
- Using site adapted and pest resistant plants: "the right plant for the right place";
- Grouping together plants with similar horticultural needs;
- Retaining and using regionally native plant material where appropriate;
- Controlling noxious weeds and invasive, non-native, plant species;
- Planting for erosion and weed control;
- Assessing whether landscapes can still meet the intended site use objectives while modifying the aesthetic standard and/or applying less maintenance; and

- Matching maintenance standards to site objectives in the design stage;
- Following specifications outline in IPM Strategy Step 8.

## **Integrated Pest Management Strategy Implementation Plan**

### **Strategy Approach**

The primary goal of the IPM Strategy is to reduce the County's reliance on the use of pesticides by formalizing and increasing the County's application of Integrated Pest Management techniques. The following paragraphs discuss the approach to achieving this goal.

### **Departments Affected**

All County departments that are responsible for managing construction projects; managing County-owned grounds, landscapes, and structures; and purchasing and using pesticides are affected. In addition, all County contractors that make their own decisions about pesticides they apply on the County's behalf will be required to take the County's IPM program into consideration (Contractors who are told what to spray are covered by the department giving them direction.)

### **Responsibilities**

Department heads shall be responsible for:

- Ensuring that departmental procedures, budget, and staffing decisions support implementation of the IPM Strategy;
- Ensuring that grounds management staff are trained in the requirements of this IPM Strategy; and
- Appointing a staff person to the GMC\* to represent the department on matters related to this IPM Strategy.
- Designate an Integrated Pest Management Coordinator\* to ensure products used by the department meet the standards outlined in this IPM Strategy.

\*The GMC representative and the IPM Coordinator may be the same individual.

The Green Team shall be responsible for:

- Providing staff support to the GMC; and
- Facilitating interdepartmental resource sharing.

### **Steps for Implementation:**

#### **1. Creating a Grounds Management Committee**

An interdepartmental Grounds Management Committee (GMC) shall be formed and shall meet quarterly to coordinate activities, share resources, plan educational opportunities, exchange information, set goals, evaluate progress, and periodically review this IPM Strategy and update it as necessary. Each May, the Committee shall submit a report addressing the Annual Summary and Pilot Project Updates as a part of the Green Team's annual report to the Board of Supervisors.

## **2. Establishing an Integrated Pest Management Coordinator**

Each department will be responsible for designating an Integrated Pest Management Coordinator. Departments will be responsible for providing Integrated Pest Management training opportunities for the Coordinator and other employees responsible for pest management. Other educational opportunities may also be provided as part of the quarterly meetings of the GMC.

The Coordinator will be responsible for:

- Managing the IPM program of the department.
- Selecting a location for the IPM pilot project to take place.
- Reviewing requests for new products to ensure that the products meet the standards of the IPM Strategy and submitting the product for review by the Agricultural Commissioner's Office.
- Attending quarterly meetings of the GMC.
- Reporting annually to the GMC about the implementation of the department's pilot program. The report shall:
  1. Identify planned changes to pest management practices
  2. Evaluate the effectiveness of those changes
  3. Identify other areas where successful changes will be implemented.

## **3. Developing and Conducting Annual Pesticide Summary**

The GMC shall coordinate development of an annual comprehensive summary of pesticide usage. Each department will complete the form in Appendix B and will submit the information to the Agricultural Commissioner's Office for input into the Pesticide Database (See IPM Strategy Step 4) by May 1 each year. Department directors shall ensure that departments participate in Countywide planning for the summary, conduct the survey, and report the information in the specified format. Upon completion of the initial summary, each product identified in the summary list shall be approved for use unless it has been identified for phase-out and a replacement option has been approved. The Annual Pesticide Summary will be submitted to the Board of Supervisors for review in the yearly report outlined in IPM Strategy Step 1.

## **4. Maintenance of the Pesticide Database**

Department directors shall ensure that departments report pesticide use information, in writing, to the Agricultural Commissioner's Office. Information may be reported on the form attached as Appendix B. The Agricultural Commissioner's Office will produce a database containing all of the information from each department for inclusion in the annual report to the Board.

## **5. Overall Pesticide Use Reduction**

County staff has already significantly reduced the amount and toxicity of pesticides used through IPM. In order to identify ways to reduce pesticide use further, each department will select a site to serve as a pilot project for the implementation of the IPM Strategy. The department will outline the current pest management strategies used in the area, identify changes they will implement as part of their new IPM Strategy, and create a timeline for the implementation process. Suggestions for targeted changes should come from any knowledgeable source including County vegetation managers due to their knowledge and experience. Specific pest management strategies for ornamentals, turf, trees/woody brush, electrical substations, and rights-of-way should be evaluated. Alternative pest management strategies might include:

- Pest prevention techniques like mulching, irrigating, fertilizing, and using pest-resistant species in landscaping;
- Mechanical pest control techniques like flame weeding, hand pulling, string trimming, and hot water weeding; and
- Alternative chemical controls like neem oil products, active bacillus products, and potassium bicarbonate products. Increasing pest tolerance thresholds may also be possible. Pesticide use reduction decisions will consider preservation of the landscape asset, safety, economy, and legal requirements.

In June of each year, the pilot projects will be reviewed by the GMC to determine the possibility of implementing similar changes at other sites. At that time, a timeline for implementing the viable changes at other sites will be developed. In addition, a new set of pilot measures will be instituted for the next fiscal year.

**Exceptions to the process include areas with a defined purpose in maintaining public health and safety including levees and dams, chemicals used to control pests that cannot be controlled by any other means, and instances where the use of a pesticide is the least environmentally damaging alternative.**

#### **6. Eliminating Use of the Most Hazardous Pesticides**

The GMC will reassess the pesticide review criteria outlined in Attachment C1 and update the criteria as needed. They will then conduct a hazard assessment of chemicals used by the County to prioritize products for phase-out if necessary. Products shall be categorized into three tiers ranging from greatest potential hazard -Tier 1 to least - Tier 3. New products considered for use will undergo the same analysis and product tier designations will be re-evaluated, as additional information becomes available. (See Appendix C1 for criteria.)

#### **7. Phasing-out Targeted Chemicals**

Each year, the GMC shall compile data from the annual Countywide summary and work with departments, to refine chemical phase-out criteria, develop a Countywide prioritized list of chemicals targeted for phase-out, and establish a work plan including tasks and schedules for phase-out of chemicals. Department directors shall ensure that departments participate in Countywide efforts to establish the annual phase-out list and annual work plan. IPM Coordinators will incorporate elements of the countywide work plan into departmental work plans. In addition to the chemical phase-out criteria, the GMC shall develop guidelines for evaluating replacement options for the products targeted for phase-out.

The GMC will evaluate the County's pesticide usage and research alternatives to products targeted for phase-out. Department directors shall ensure that departments participate in the GMC and implement activities listed in the work plan as needed to phase-out targeted pesticides. Directors shall also evaluate proposed alternatives per guidelines outlined in Integrated Pest Management Strategy Step 5.

#### **8. Reviewing Landscape Plans for New Construction and Renovation Projects**

Any County department that is participating in a project that designs a new landscape or renovates an old one shall request and incorporate comments regarding the proposed landscape

design from the Parks Department GMC Representative and the General Services Department Capital Projects Representative, if the landscape will become the responsibility of another department within a period of 3 years.

### **9. Reviewing Requests for New Products**

Any pesticide that is not listed on a department's summary shall not be purchased or used by that department without prior review to determine whether the product meets the criteria outlined in Attachment C1 of this plan. In order for a new pesticide to be added to a department's summary the following criteria must be met:

For outdoor use of pesticides -

1. A Pest Control Advisor (PCA), or County Agricultural Commissioner's Office employee, who is trained in IPM, must review the pest situation and recommend the pesticide for use. He or she must consider other alternatives before recommending a pesticide for use, then submit, in writing, details of why other alternatives were not selected in that situation.
2. The recommendation will then be submitted to the Agricultural Commissioner's Office GMC Representative to ensure that the pesticide meets the criteria listed in the Integrated Pest Management Strategy, along with other local, state and federal regulations.
3. New products shall be subject to additional review by the GMC at the next quarterly meeting. The GMC, in consultation with the applicable user group, shall make the final determination on product acceptability before such products are added to the list of approved products.

For indoor use of pesticides -

1. A licensed Structural Pest Control Operator (PCO), or County Agricultural Commissioner's Office employee, who is trained in IPM, must review the pest situation and recommend the pesticide for use. He or she must consider other alternatives before recommending a pesticide for use, then submit, in writing, details of why other alternatives were not selected in that situation.
2. The recommendation will then be submitted to the Agricultural Commissioner's Office GMC Representative to ensure that the pesticide meets the criteria listed in the Integrated Pest Management Strategy, along with other local, state and federal regulations.
3. New products shall be subject to additional review by the GMC at the next quarterly meeting. The GMC shall make the final determination on product acceptability before such products are added to the permanent summary of approved products. Department directors shall ensure that departments have internal procedures to allow their IPM Coordinator to obtain proper review of requests for new products from a PCA or Structural PCO and the Agricultural Commissioner's Office to prevent unauthorized use of new pesticides that have not been reviewed, or have been reviewed and rejected. Department directors shall ensure that new products approved for use are added to the department's list of approved products

## **10. Reviewing and Revising Procurement Procedures**

The GMC shall review procurement practices to ensure that they are consistent with this IPM Strategy, including an assessment of:

1. Standards for size and quantity of materials to be purchased under County contracts, including minimum order requirements, unit sizes, and quantity discounts;
2. Standards for type of materials available under County contracts to restrict availability of chemicals targeted for phase-out;
3. Standards requiring vendors to accept return of unused products;
4. Existing Blanket Contracts, which are high priority for revision or replacement, based on factor (1) or (2) above.

## **11. Incorporating Hazardous Materials Minimization into Operations**

The GMC shall assist departments, as needed, in identifying alternatives and developing and implementing best management practices to minimize pesticide use. Department directors shall ensure that departments incorporate measures into their operations to minimize pesticide use, document those measures, and develop applicable written procedures on those measures.

## **12. Involving and Educating Employees**

The GMC shall invite speakers to quarterly meetings or arrange for other educational opportunities to assist departments in implementing this IPM Strategy. Department directors shall ensure that IPM Coordinators inform employees on departmental policies and procedures relevant to this IPM Strategy and keep staff current with best landscape-management practices and technologies that utilize Integrated Pest Management. Department directors shall also support employee involvement in identifying and implementing strategies to minimize the use of pesticides and in evaluating replacements for chemicals targeted for phase-out. In making landscaping staffing and budget decisions, departments shall consider the potential environmental tradeoffs; for example, will reduced staffing require increased use of pesticides to maintain the landscape at the same standard? Will eliminating the use of herbicides to control vegetation result in the use of more disruptive mechanical means?

## **13. Tracking Progress and Evaluating the Program**

Each April the GMC will gather information for the Annual Pesticide Summary. In addition, each department will submit a summary of the previous year's pilot project, a timeline for implementing viable changes at other sites, and plans for a new pilot project including changes that will be implemented in the next Fiscal Year and a timeline for their implementation. The GMC shall compile this information and any recommendations for future direction of the program and shall submit the report to the Board of Supervisors each May.

## **14. Research Alternative Pest Control Equipment, Products, and Techniques**

Throughout the year, the GMC shall research alternative Pest Control Equipment, Products, and Techniques and shall test viable options through the pilot projects for each department. The GMC shall arrange presentations from companies selling viable equipment and product options at quarterly meetings as opportunities arise.

**15. Conduct Public Outreach**

The GMC shall conduct public outreach efforts to both increase awareness of and gauge reactions to changing maintenance standards and alternative approaches. Public outreach efforts should be focused on both County employees and the general public.

**16. Develop a Request for Qualifications (RFQ)**

The GMC shall develop language for a Request for Qualifications that will be used to locate outside contractors with demonstrated experience in Integrated Pest Management activities.

**17. Pursue Alternative Funding Sources for IPM Activities**

The GMC shall research and catalogue appropriate grant opportunities for IPM Activities, for joint projects through the GMC and for individual projects within each participating department. Departments involved in the GMC shall research opportunities to cost-share projects and equipment purchases. The GMC shall identify appropriate projects and develop grant proposals as opportunities arise. The GMC shall track funding cycles and share information about grant opportunities at quarterly meetings.

## Attachment C1

**Pesticides meeting the following criteria may be targeted as first priority for phase-out.** During 2002, the County did use Fumitoxin, which falls in Tier I and is restricted. The process listed below was followed to approve a one-time only use of Fumitoxin to control ground squirrel populations because they are a plague vector. In the future, the County does not intend to use pesticides that fit these criteria, unless extraordinary conditions occur that warrant their use. Exceptions to the restriction will be considered as described below. Affected departments will designate IPM Coordinators to evaluate exception requests.

### Criteria

- Products assigned by the U.S. Environmental Protection Agency (EPA) to Hazard Category I: Signal word DANGER appears on label
- Restricted use pesticides – use of the product is restricted to certified pesticide applicators
- Products with active ingredients found on the California Proposition 65 list
- Products labeled as highly toxic or extremely toxic to non-target birds, aquatic species, bees, and wildlife.
- Products that are persistent in the environment.
- Products that move readily in the environment and may impact ground or surface water with specific label warnings about groundwater hazard.

### Exceptions

Exceptions to the restrictions will be considered based on:

- a description of the pest problem,
- rationale for chemical control with the proposed product,
- a description of how the product will be used and the length of time it will be needed,
- legal requirements,
- public health and safety considerations,
- preservation of landscape assets, and
- an evaluation of all feasible alternatives including non-chemical and no action alternatives,
- the safety, health, and environmental impacts of the alternatives also will be evaluated.

Exceptions may be granted on a one-time-only basis or as a programmatic exception that applies across all departments. One-Time-Only Exceptions - The Departmental IPM Coordinator and the Grounds Management Committee will be responsible for evaluating and approving one-time-only exceptions within each Department. Programmatic Exceptions - All departmental IPM Coordinators and the Grounds Management Committee will meet, as necessary, to evaluate and approve or deny programmatic exceptions. All programmatic exceptions will be re-evaluated annually by the IPM Coordinators and the Grounds Management Committee based on a review of alternatives and a re-evaluation of the need for the control. For all exceptions granted, a Best Management Practice will be required to minimize human health and environmental risk.

