

SANTA BARBARA COUNTY BOARD AGENDA LETTER



Clerk of the Board of Supervisors
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Document Name: Pesticide Use.doc

TO: Board of Supervisors

FROM: Ron Cortez, General Services Director
William Gillette, Agricultural Commissioner
Phil Demery, Public Works Director
Jennifer Briggs, Parks Department Director

STAFF CONTACT: Rory Lang
Public Works Program Specialist, Water Agency, Ext. 3545

SUBJECT: Santa Barbara County Integrated Pest Management Strategy,
All Supervisorial Districts

Recommendation(s):

That the Board of Supervisors:

- A. Receive and file the attached "Santa Barbara County Integrated Pest Management Strategy"; and
- B. Direct Departments to implement the strategy for pesticide use by the County.

Alignment with Board Strategic Plan:

The recommendations are primarily aligned with Goal No. 2: Ensure the Public Health and Safety and Provide Essential Infrastructure.

Executive Summary and Discussion:

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 assess 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 (Attachment I) 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 County Departments in their work.

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 non-hazardous 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.

As part of the IPM Strategy a Grounds Management Committee will be established to coordinate activities, exchange information, review requests for new products, set goals and evaluate progress. Each department will also be required to appoint an IPM Coordinator to oversee a pilot project to implement IPM techniques. In addition a summary of pesticide use will be compiled and submitted to the Board of Supervisors on an annual basis along with progress reports for each of the pilot projects.

Attachment II includes information from each participating department regarding current pesticide use, past pest reduction efforts, pilot project outline, timeline, and budget.

The IPM Strategy was prepared in a manner, which allows the document to be updated and improved on a regular basis. In addition several future actions have been set forth with the input from Board members and public interest groups to encourage future enhancements to the program. An RFQ process will be developed to seek outside contractors for Departments that do not have Pest Control Advisors (PCA) on staff. Qualified contractors must have IPM experience to qualify for County contract work. It should be noted that all PCAs are trained to some degree in IPM techniques and that efforts will be made to find outside contractors with extensive training and experience and that training for PCAs currently on County staff will be enhanced to the maximum extent practicable.

Public notification procedures will also be developed. The General Services Department has already developed post / notification signage (See Attachment III) and intends to implement this process immediately. Providing information to employees and the public is a key concern to General Services. The Parks Department, which has been posting public notices for several years, is updating their notification procedure as part of adopting the IPM Strategy (See Attachment IV). Although most of their pesticide use has much lower exposure to the public, Flood Control has also posted public notification in areas of public use or in applications close to existing residences and businesses for several years.

Mandates and Service Levels:

The various County Departments already comply with State and Federal regulations regarding pesticide use. The IPM Strategy will heighten the County's sensitivity to the use of pesticides and seek practical reductions in the use of Pesticides.

Fiscal and Facilities Impacts:

Current personnel and equipment will be used for all pilot projects. Most pilot projects will have no significant fiscal impacts. However, costs of each project will be tracked, monitored, and compared to those costs to maintain similar areas using traditional methods and materials.

Concurrence: County Counsel

Attachment I

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 non-hazardous 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 non-target 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.

Integrated Pest Management Strategy

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 per year and to develop and maintain a countywide information system on pesticide usage (See IPM Strategy Steps 3 and 4). Upon completion of each annual Countywide summary of pesticide usage, the criteria outlined in Appendix A 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 (See IPM Strategy Step 1 and 9) at the next annual summary review 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 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 Plan

Strategy Approach

The main component 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 these goals.

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 are applying pesticides on the County's behalf will be required to subscribe to the IPM program.

Responsibilities

Department heads shall be responsible for:

- Ensuring that departmental procedures, budget, and staffing decisions support implementation of the IPM Strategy;
- Providing training to grounds management staff in the requirements of this IPM Strategy; and
- Appointing a staff person to the Grounds Management Committee* 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 Grounds Management Committee; and
- Facilitating interdepartmental resource sharing.

1. Creating a Grounds Management Committee

An interdepartmental Grounds Management Committee 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 Grounds Management Committee.

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 Grounds Management Committee.
- Reporting annually to the Grounds Management Committee 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 Grounds Management Committee 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 Management Information System (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. Developing, Installing, and Maintaining the Pesticide Management Information System

The Grounds Management Committee shall develop and install the Pesticide Management Information System and develop interdepartmental agreements on use and maintenance of the system. The database shall be maintained and updated by the Agricultural Commissioner's Office. Department directors shall ensure that departments comply with interdepartmental agreements on use of the Pesticide Management Information System.

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 Grounds Management Committee 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 Grounds Management Committee will reassess the pesticide review criteria outlined in Appendix A 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 A for criteria.)

7. Phasing-out Targeted Chemicals

Each year, the Grounds Management Committee shall compile data from the annual Countywide summary and work with departments and user groups, 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. Directors will also incorporate elements of the countywide work plan into departmental work plans. In addition to the chemical phase-out criteria, the Grounds Management Committee shall develop guidelines for evaluating replacement options for the products targeted for phase-out.

The Green Team shall facilitate interdepartmental user groups in evaluating their pesticide usage. The Green Team shall assist user groups and, where applicable, individual departments in researching alternatives to products targeted for phase-out. Department directors shall ensure that departments participate in interdepartmental efforts 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 submit design plans to the Grounds Management Committee for approval, 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 Appendix A 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), who is trained in IPM, must review the pest situation and recommend the pesticide for use. The PCA must review the pest situation and consider other alternatives before recommending a pesticide for use. The PCA must then submit, in writing, details of why other alternatives were not selected in that situation.
- 2) The PCA's recommendation will then be submitted to the Agricultural Commissioner's office 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 Grounds Management Committee upon completion of the next annual summary. The Grounds Management Committee, in consultation with the applicable user group, shall make the final determination on product acceptability before such products are added to the permanent summary of approved products.

For indoor use of pesticides -

- 1) A licensed Structural Pest Control Operator (PCO), who is trained in IPM, must review the pest situation and recommend the pesticide for use. The Structural PCO must review the pest situation and consider other alternatives before recommending a pesticide for use. The Structural PCO must then submit, in writing, details of why other alternatives were not selected in that situation.
- 2) The Structural PCO's recommendation will then be submitted to the Agricultural Commissioner's office 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 Grounds Management Committee upon completion of the next annual summary. The Grounds Management Committee, in consultation with the applicable user group, 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 summary list.

10. Reviewing and Revising Procurement Procedures

The Grounds Management Committee 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 Grounds Management Committee 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 Grounds Management Committee 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 to 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 Grounds Management Committee will conduct a survey to 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 Grounds Management Committee 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. Future Actions

Over the next year the Grounds Management Committee and the Green Team will work together to ensure that the tasks outlined in this IPM Strategy are completed. The lessons learned from the pilot projects and annual updates will help us effectively target our resources. Over the next year, we will:

- Research alternative pest control equipment, products, and techniques;

- Create a working group comprised of the Grounds Management Committee and interested members of the public to develop a process for notification of chemical application specific to the application location and type;
- Conduct pilot studies to evaluate alternative effectiveness and potential for use on Countywide scale;
- Develop maintenance standard trial sites to monitor increased pest tolerance thresholds and any resulting damage;
- Conduct public outreach to both increase awareness of and gauge reactions to changing maintenance standards and alternative approaches;
- Develop a Request for Qualifications (RFQ) to locate outside contractors with demonstrated experience in Integrated Pest Management activities;
- Pursue alternative funding sources.

Appendix A (Appendix to Attachment I)

Pesticides meeting the following criteria may be targeted as first priority for phase-out. At this time the County does not use any pesticides that fit these criteria, nor does the County have any intention of using 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,
- 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.

Appendix B (Appendix to Attachment I)

IPM Strategy Annual Summary Reporting Form

Department: _____
Contact Name: _____
Contact Extension: _____
Fiscal Year: _____

Pesticide (name/type)	Where Applied (Facility type)	Amount Used	Applied by (County vs. contractor*)	Targeted for phase-out? (Y/N)

***Please attach a copy of the invoice received from the contractor with pesticide name and amount used.**

Attachment II

Pilot Projects

Department: Parks
Contact Name: Rick Wheeler
Contact Extension: x5653
IPM Coordinator: Richard Lindley

I. History of Pesticide Use

1970 - 1980 - County Parks used contact killers, such as Paraquat, and soil sterilants, such as Simazine, which were approved for use during this time period. These toxic products were applied each spring to control weeds and reduce the amount of mowing and handwork that would otherwise be required to control the weeds. In addition rodent baits were used that contained strychnine. There is no historic data available to report how much of these materials were used, but they were part of the maintenance program at the time.

Mid - 1980's - County Parks moved away from the use of highly toxic materials, as the use of these products became restricted. Parks looked for less toxic alternatives to these chemicals that provided similar control opportunities and replaced Paraquat with Roundup. Another material replaced at about that time, due to its toxicity, was strychnine rodent bait. Parks quit using it because of the danger of secondary poisoning of animals that might consume killed rodents. The Department began using the WILCO type baits that are safer to use since there is little risk of secondary poisoning to pets and other wildlife. These baits are still used today.

Early 1990's - Parks began drastically reducing the amount of sprayed acreage maintained by the Department. Areas that used to be sprayed out completely with weed killer are now edged with Roundup Pro and the balance of the acreage is mowed with large weed mowers. The result of this change is less exposed barren ground, but increased time required to maintain the area in a presentable condition.

1995 - 2000 - Over the last five years, County Parks has reduced or stopped spraying herbicides in several of the Goleta planning area sites. Open spaces and parks are no longer blanket sprayed. Spraying is restricted to borders and around obstacles and fence lines, then the weeds are mowed.

The judicious use of herbicides and rodenticides allows County Parks to maintain 2,354 acres in 88 parks, open spaces, and beach accesses, 132 miles of trail, and 43 acres of county building grounds at a safe and attractive level. We have the same control and maintenance issues that we had in the

1970's & 80's. However, we have changed the products used to the least toxic and safest materials available.

II. Summary of Current Use

Pesticide (name/type)	Amount Used Annually
Roundup Pro	57 gals.
Surflan	5.78 gals.
WILCO Gopher Bait II	160 lbs.
WILCO Squirrel Bait	24 lbs.
Ramik Green Rat Bait	15 lbs.

Mechanical methods, such as mowing, tilling and weed whipping, are the preferred methods of weed control used in county parks, open spaces, and other county facilities. However, in order to maintain weed control and reduce handwork to manageable levels some herbicide spraying is done. With that in mind, two herbicides are currently used assist Parks in providing attractive, safe, well-maintained landscapes within the staffing and funding levels available.

Before any herbicides are applied an area assessment is performed. The assessment considers the acreage maintained, the frequency maintenance is required, types of public use, economics, specific weeds being treated, size of weeds being controlled, and the purpose of application. We employ a licensed contract Pesticide Advisor to provide detailed recommendations of the product to use, how to mix it, and how to safely apply it. State law requires this process. Staff also receives annual training in the safe use, handling, and application of the pesticide products Park's uses.

Herbicides -

Roundup Pro – Is mixed with water and applied from a backpack sprayer or a truck bed mounted 50-gallon sprayer using a hose & wand off the tank. We spot treat weeds, spray borders of turf and walk ways, spray along road ways, parking strips, around trees, tables and transitions between turf and volleyball courts, usually applying about a four inch strip along edges.

Surflan – Is used to control of weed seeds. Mixed, and applied in the same manner as, Roundup Pro. Normally used in locations where irrigation is available or when rain is expected to permit weed seed germination.

"Green" weed control methods - Apply thick layers of mulch or wood chips. Mulching operation starts with mowing and herbicide spraying to insure initial weed control. Wood chip mulches used throughout the park system on trails, around picnic areas, parking lot strips, and planter beds, and under tree canopies. New chips added as old chips decompose and break down or when weeds appear. Spot spraying used to control weeds and grasses that grow up through the mulch. Mulch & chips available at the County Transfer Station, tree trimmers or tree companies. Chips stockpiled for later use, if not needed when available.

Varmint Pesticides -

It is important to control varmints because they carry disease, destroy property and landscapes, and create trip hazards with their burrowing activities.

WILCO Gopher Bait II -Used specifically to control gophers in landscapes. Applied using a "gopher getter" tool, which injects a measured amount of bait into a gopher's run. Also use mechanical spring traps to control gophers.

WILCO Squirrel Bait - Used to control ground squirrel populations. Bait is placed in PVC pipe "T" tubes (6'X3') daily at a rate of about 1 lb. per day until feeding stops.

Ramik Green Rat Bait - Used to control rat populations in our landscapes. Applied similarly to squirrel bait. Also use spring-loaded rat traps were possible.

III Pilot Project

Convert to "Green" (organic) maintenance operations using Integrated Pest Management practices and techniques at selected locations in the Goleta Planning Area and North County Parks

- Location(s) -
 - Isla Vista County Park
 - Isla Vista Beach Access Ways at –
 - El Embarcadero
 - Camino Pescadero
 - Camino Del Sur
 - Escondido Pass
 - Roads End
 - CSA3 Open Spaces at –
 - Stow Tennis Courts
 - Emerald Terrace
 - Queen Anne / Vineyard
 - North Kellogg Open
 - Demonstration Garden at Technical Services Building in Santa Maria
(Using drought tolerant natives and organic growing & maintenance methods)
- Targeted Change

The listed locations will be maintained using organic fertilizers, mechanical mowing, edging, weed whipping and the application of weed barriers such as mulch. Gophers will be trapped using mechanical traps. Pests will be dealt with using IPM procedures and techniques.

- Estimated reduction in pesticide use
100%
- Budget
Current personnel and equipment will be used. Organic fertilizers will be used to replace the current chemical fertilizing program. Costs will be tracked, monitored, and compared to those costs to maintain similar areas using traditional methods and materials.
- Timeline
This program began on March 1, 2000
A semi-annual evaluation & status report of the pilot projects will be presented to the Ground Management Committee.

Department:	Public Works - Flood Control
Contact Name:	Larry Fausett
Contact Extension:	x3437
IPM Coordinator:	Larry Fausett

I. History of Pesticide Use

Over the years that the Flood Control District has been doing maintenance to provide flood protection in Santa Barbara County a number of methods have been tried and many lessons have been learned. There are certain practices that work best for certain situations. Frequently the most cost effective, safest and least environmentally invasive way to deal with the factors that contribute to flooding in an area is an application of herbicide.

The District does maintenance on over 250 miles of creeks, channels and rivers. There are over 100 miles of access roads along facilities the District is mandated to maintain. In addition, the Santa Maria River Levee has 25 miles of rock facing, 25 miles of access road on the top of the levee and another 25 miles of lower levee road. While the Levee and its roads need to be kept free of plant growth, other facilities are not harmed by having some vegetation on them. In certain areas, vegetation is encouraged (such as creek banks and slopes, while others areas are desired to be free from obstruction (such as channel bottoms, and access roads.

In the past 12 years, the Flood Control District has reduced pesticide use by approximately 30% through the application of the principals of Integrated Pest Management. The District has five employees who are involved in the use of pesticides. All are licensed by the State Department of Pesticide Regulation. Four are Qualified Applicators and three are also Pest Control Advisors. The Qualified Applicators are required to

attend at least 10 hours of continuing education per year and the Pest Control Advisors are required to attend at least 20 hours of continuing education per year. The continuing education includes topics such as Worker Health and Safety, Laws and Regulations, new product information, prevention of groundwater contamination, IPM, biological control, control of invasive exotic plants and many others. District employees usually attend continuing education sessions together and utilize this time to evaluate current practices and products in our ongoing effort to use the most appropriate pest control methods.

A comparison of the costs to control obstructive vegetation in a given reach of creek where any one of three methods could be used is instructive. To spray one acre takes two people 2 hours and about \$25.00 worth of material. The total cost then is \$146.00. A hand brushing crew of four can go through the same area in a day and they will use chainsaws, a winch truck (to pull the cut material out of the creek), a chipper and a truck to haul the chipped material away. Total cost of labor and fuel equals about \$2500.00. If the vegetation traps enough sediment that the same area would have to be desilted with heavy equipment and the material hauled off, it would take 2 days using an excavator, a loader, and four trucks. This would cost \$7400.00 and is relatively more disruptive both to the creek, and the adjacent area due to noise, dust, diesel fumes, etc.

The District’s current vegetation management practices are safe, cost effective and follow the IPM model of using the best method for any given circumstance, including herbicide application, hand brushing, mowing and removal by heavy equipment.

II. Summary of Current Use

<u>Active Ingredient</u>	<u>Amount Used (1998)*</u>
Glyphosate	1141 Gallons
Chlorosulfuron	20 Pounds
Adjuvants	67 Gallons

*1998 is the last full year of record from the County Agricultural Commissioner’s Office.

III. Pilot Project

- Location
Open space/access to Sycamore Creek at Soledad.
- Change
Eliminate annual diuron (pre-emergent) application and apply a thick layer of wood chip mulch. The chips will come from a brushing operation someplace else in the South Coast Flood Zone.
- Reduction
In this site, approximately 2 ounces of material is used so the reduction in the pilot project itself is minimal but the potential reduction is probably 30% or 330 gallons per year.
- Budget

Spraying this area takes one person about ten minutes, which equals \$10.00. Dumping and spreading the mulch there will take two people about one hour, which equals \$120.00.

- **Timeline**

Pre-emergent is sprayed just before the winter's rains begin, i.e., in January of this year, therefore the chips can be placed next fall and their effectiveness can be evaluated the following spring. This will be done by taking photographs of the area at two-week intervals (minimum).

Department: Public Works – Roads Division
Contact Name: Gary Christiansen / Kurt Klucker
Contact Extension: x3336 / x6100
IPM Coordinator: Gary Christiansen / Kurt Klucker

I. History of Pesticide Use

The Public Works – Roads Division uses herbicides to augment and support mechanical methods for the purpose of weed control along some county road shoulders “Right of Way”. Weed control is an integral part of maintaining the safety of public roads.

The North and Central County Divisions apply herbicide by contract, as per the recommendations and directions of a third party independent state licensed Pest Control Advisor.

The South County Division applies much smaller amounts of herbicide, primarily with In-house personnel. All personnel involved are fully trained in the application of herbicides, and follow all laws, guidelines, recommendations and regulations that apply.

The spray program is a crucial activity in support of mechanical methods of weed control and part of our IPM. It reduces the manpower requirements for vegetation control. It occurs during non-peak times when personnel are available to make or monitor the applications.

It is cost effective, with total application time in the range of one month, start to finish.

Use of herbicide reduces the requirements for manpower and machinery that is needed to perform mechanical weed control. Applications made during winter months reduce mechanical weed control to once per year in spring before summer fire dangers increase.

All applicators are licensed and aware of surrounding environmental conditions, including agriculture, landscaping, native vegetation, and related restrictions.

The following goals are achieved through our IPM.

Reduce fire danger from weeds along the road shoulder.

Clear sight distance, particularly at intersections.

Reduce weed pests and pest vectors along neighboring agriculture.

Reduce animal / vehicle collisions through roadside reduction of food and cover as well

as better visibility to approaching vehicles.

Reduce exposure of hand and mechanical weed control crews to moving traffic.

II. Summary of current use

Pesticide (name/type)	Where Applied (Facility type)	Amount Used	Applied by (County vs. contractor*)	Targeted for phase-out? (Y/N)
IV. Roundup P	V. Right of Way	91.0 gal.	VI. Contract: M86406 M86407	No
Surflan	“	122.0 gal.	“	“
VII. Karmex	“	918.0 lbs.	“	“
Oust	“	28.44 lbs.	“	“
Merit	“	310.0 oz.	Contract: 6410018	“
Roundup	“	67.0 gal.	County forces	“

III. Pilot Project

- Location
The location of the 00/01 Pilot Project will be Roads Division wide.
 - Targeted Change
The targeted change is to reduce the amount of pesticides purchased and stored at maintenance yard locations by using up existing inventories and stocks and only purchasing, storing, and using as-needed quantities. Also return or otherwise legally recycle or dispose of all materials that are expired or no longer used.
 - Estimated reduction in pesticide use
No known reduction in pesticide use, but a reduction in pesticides stored on site.
 - Budget
No significant impact on budget other than elimination of quantity price breaks.
 - Timeline
To be effective upon ratification of this strategy. To be completed by the end of the fiscal year.
-

Department: General Services
Contact Name: Mike Beckett
Contact Extension: x3096
IPM Coordinator: Mike Beckett

I. History of Pesticide Use

In order to determine the history of pesticide use within County facilities, the Green Team conducted a survey requesting information regarding pesticide usage Countywide. The results of the survey indicated that employees do not currently follow a consistent method for dealing with pest issues within County facilities, despite the fact that General Services does contract with pesticide service providers to provide this service for County facilities.

II. Summary of current use

General Services contracts with two pest control service providers. The providers are called on an "as needed" basis to control pests. Chemical quantities are not currently available.

III. Pilot Project

- Location
Administration Building, Santa Barbara
- Targeted Change
The General Services Department will educate employees to use a consistent method for requesting pest control services. This project will ensure that safe pesticides are used and that all affected parties will be notified.
- Estimated reduction in pesticide use
A successful project should result in the elimination of shelved pesticides within County facilities.
- Budget
There are no projected impacts to the current budget.
- Timeline
The project shall be in place within six months.

Attachment III

General Services Department

post / notification signage

Attachment IV



As a courtesy to our park users we want to inform you that we will be applying ROUNDUP herbicide in this area during the day on:

Day

Date

Staff will be present during the application and until the spray is dry and the area is opened for your use.

If you have questions, please call us at:

(Parks will use this sign when applying herbicide. The verbiage will be altered to reflect the material(s) being used and posted in English & Spanish (back to back)).