

**SANTA BARBARA COUNTY
BOARD AGENDA LETTER**



Clerk of the Board of Supervisors
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Santa Barbara, CA 93101
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Agenda Number:
Prepared on: 5/01/01
Department Name: General Services
Department No.: 063
Agenda Date: 5/15/01
Placement: Administrative
Estimate Time: N/A
Continued Item: NO
If Yes, date from:

TO: Board of Supervisors

FROM: Ronald S. Cortez, Director, General Services
Phil Demery, Director, Public Works
Jennifer Briggs, Director, Parks
William Gillette, Agricultural Commissioner

STAFF

CONTACT: Dana Green, Solid Waste and Utilities Division, Ext. 3615

SUBJECT: Green Team Annual Update and Integrated Pest Management Annual Update

Recommendation(s):

That the Board of Supervisors:

- A. Accept the Green Team's April 2000 - April 2001 Annual Update (Attachment A); and
- B. Accept the Grounds Management Committee Annual Update on the Integrated Pest Management Strategy (Attachment B).

Alignment with Board Strategic Plan:

The recommendation is primarily aligned with Goal No. 7. A Community that Fosters the Safety and Well-Being of Families and Children.

Executive Summary and Discussion:

I. Recommendation A.

On April 20, 1999 your Board accepted the project charter of the newly formed Green Team in honor of Earth Week. In the past year, the Green Team has made great strides in implementing programs, which promote environmental stewardship in County operations. Attachment A describes the programs that have been implemented by the Green Team in Fiscal Year 2000/2001.

II. Recommendation B.

On April 4, 2000 your Board adopted the Integrated Pest Management Strategy and directed County Departments to implement the procedures for pesticide use outlined in that document. In alignment with IPM Strategy Requirement #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 . . .

Attachment B provides an outline of the pilot projects implemented in 2000/2001 and for those planned for 2001/2002.

Mandates and Service Levels:

Approval of Recommendations A and B will not change programs or service levels.

Fiscal and Facilities Impacts:

Approval of Recommendations A and B will not have any fiscal or facilities impacts.

Attachment A

On April 20, 1999 your Board accepted the project charter of the newly formed Green Team in honor of Earth Week. In the past two years, the Green Team has made great strides in implementing programs, which promote environmental stewardship in County operations. The Green Team has compiled the following information to provide an annual update for your review.

Commingled Recycling Programs

Prior to April 1999, the County's recycling programs only included office paper and cardboard. In 1999 the Green Team expanded the program to include commingled recycling in facilities where commingled service is available. Expansion efforts have resulted in approximately 55 County buildings with commingled recycling service. The Solid Waste & Utilities Division plans to implement commingled recycling in approximately 25 more buildings in the next year.

In addition, the Solid Waste & Utilities Division and General Services Department are currently working to complete a database of county facilities, which will include individual locations, trash and recycling service levels, janitorial service providers, current costs, waste haulers, and account numbers.

Hazardous Waste Recycling

County employees utilize hundreds of batteries each year for pagers, cameras, calculators, palm pilots, and other electronic equipment. These batteries are hazardous waste and need to be disposed of properly. Therefore the County Green Team initiated and began the County Battery Recycling Program on April 1, 2001. The Battery Recycling Program focuses on diverting dry cell batteries ("D" sized batteries and smaller) including alkaline, nickel-cadmium, and lithium batteries from our landfills.

Batteries are collected through the County's brown internal mail system. Employees can send the batteries through the "brown mail" system to Purchasing/Batteries. The batteries are collected in the Mail Room and are sorted into the three different buckets according to battery type. County employees are asked only to submit batteries from work and not to submit batteries from home. Any corroding or leaking batteries must be placed in a plastic bag. On a monthly basis, General Services will properly dispose of the batteries at the Community Hazardous Waste Collection Center, located at the University of California, Santa Barbara (UCSB) campus.

Green Energy and Energy Efficiency Tips

On August 17, 1999, the Board directed General Services' staff to distribute an RFP to companies able to provide energy from renewable sources, such as wind and solar power. A letter along with twelve months of County electrical usage data was forwarded to four (4) different energy service suppliers requesting information and pricing for switching the County to renewable energy supplies. In May 2000, staff returned to the Board for approval of a contract with Go-Green, a Green Energy supplier. The General Services facilities management department was in the process of compiling account numbers and data for the affected meters to be converted. Due to illness and unanticipated changes in

department management, a few months elapsed. In the meantime, Go-Green apparently lost a major portion of its funding and was no longer accepting any new customers.

General Services then did a comprehensive search for other reliable suppliers and found one or two sources that utilized wind, geothermal and biomass technologies and had excellent governmental references. At the same time the deregulation of the electricity industry in California was on the verge of a major crisis. The volatility of rates, rolling blackouts and dwindling supply created a tremendous amount of uncertainty for all consumers. In addition to an electricity shortfall from traditional sources this also affected the entire green energy market. Due to these uncertainties, General Services with the backing of the Green Team decided that the timing was not good for switching any meters to green energy. Alternatively, we began to focus our efforts on conservation methodology and will recommend pursuing green energy when the time is right.

On January 19, 2001 the Green Team distributed copies of **Tips for Energy Efficiency** to all County employees and also posted the same information on the County intranet. The Green Team developed this brochure from research and brainstorming ideas in an attempt to better educate employees on ways of conserving electricity and increasing efficiency. The ideas mentioned in the brochure are simple but if followed by all employees, could result could in significant energy and cost savings countywide. The brochure consists of tips for reducing lighting, using stairs instead of elevators, disconnecting appliances and computers when not in use, looking for the Energy Star label when making purchases, properly maintaining equipment and notifying General Services about any building envelope air leaks. The brochure also encouraged others to share their own energy saving tips. Exact savings are difficult to measure but we feel that these energy reduction suggestions along with general awareness of the energy crisis have contributed to a 5% decline in energy consumption at the County.

Integrated Pest Management

On April 4, 2000 the Green Team brought the Santa Barbara County Integrated Pest Management Strategy to the Board for their approval. The Green Team assisted in the development of a pesticide sub-committee to determine Best Management Practices for the use of pesticides within County facilities and in County applications. Representatives from the Parks Department, Agricultural Commissioner's Office, and Public Works Department prepared an Integrated Pest Management Strategy which was brought before the Board of Supervisors in April 2000. The IPM Strategy is currently being implemented through a series of pilot projects and the activities of the Grounds Management Committee.

Hybrid Vehicles

In November 2000, the County's General Services Department purchased a hybrid vehicle, the Toyota Prius, for the motor pool at the Administration Building in Santa Barbara. Each time the vehicle was checked out, the driver was asked to complete a survey regarding their experience with the vehicle. The Prius has a 98% satisfaction rate with County employees. The hybrid vehicle has been found to get about 39.2 mpg as compared to 22.2 mpg for the comparable Ford Taurus that is offered in the pool. The General Services Department has ordered two more vehicles for the motor pools at the Calle Real Center in Goleta and the Betteravia Government Center in Santa Maria. County staff will be looking for hybrid vehicles from domestic vendors for future purchases.

Janitorial Products

The Janitorial Products Pollution Prevention Project is offering free on-site janitorial chemical reviews in Southern California from April to August 2001. In March 2001, Tom Barron, the consultant hired to run the evaluations, met with Green Team members including staff from General Services, Solid Waste and the Water Agency, to discuss options for reducing the toxicity of janitorial products used in County Facilities. Sponsors of the project include US EPA, Cal/EPA Department of Toxic Substance Control, Santa Clara County Pollution Prevention Program, City of Los Angeles, City of Richmond, City of Santa Barbara, and the Local Government Commission.

In April 2001, General Services' staff scheduled two on-site evaluations with Mr. Barron and the janitorial service contractors. The Material Safety Data Sheets (MSDS) for all of the janitorial products used were reviewed with each vendor. From the approximately 20 products used, only one was determined to be harmful, a stainless steel and chrome cleaner. The vendor was asked to get MSDS on possible replacement products and Mr. Barron will review and make a recommendation on the best choices among the replacement products. A change will be made based on these recommendations. Currently, no products in use pose danger to the building occupants or visitors. Mr. Barron gave Santa Barbara County's chemical use a safer than most rating. The Green Team will coordinate a similar meeting with the Public Health Department in-house custodians since General Services does not do the cleaning at the SB PHD sites.

Attachment B

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

In response to the Board of Supervisors adopted **Integrated Pest Management Strategy** County Parks wishes to report the following summary of the year's activities, March 1, 2000 through April 2001.

- The Santa Barbara County Parks Department contracted for Pest Control Advisor (PCA) services with a PCA (local vendor) that does not provide pest control material or treatment services to the department. The PCA was selected for his training and experience in Integrated Pest Management (IPM) techniques as well as his knowledge of chemical pest control methods. The PCA will make recommendations for dealing with pest problems and treatments at our facilities.
- Parks participated in quarterly meetings of the Grounds Management Committee (GMC), and appointed a park department staff member as Pest Management Coordinator (PMC) to manage the departments IPM program. The PMC monitored our pilot projects, reviewed and presented requests to the GMC and Agricultural Commissioner for a new product on our permit. Our Department PMC also set up annual training in IPM and chemical pest control for department staff this spring.
- Park's PMC took one new material use request to the GMC. The request was for the use of Fumitoxin to control an infestation of ground squirrels at Cachuma Recreation Area. With the committee's support and the Agricultural Commissioners approval to use this material, we reduced the infestation to an acceptable level. A copy of the request is attached as Appendix A to Attachment B.
- County Parks established two pilot sites where IPM and organic methods were applied to ground maintenance in order to compare them with standard grounds maintenance techniques and practices. The pilot sites were monitored for labor costs, material costs, and appearance for comparison to a control site of comparable size and use. The intent was to determine the pros and cons of using IPM and organic "Green" methods of maintenance vs. our standard practices. The results are presented below.

Pilot Project Description

The pilot project chosen by the Parks Department was: "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."

The selected pilot locations were: Isla Vista County Park and the Isla Vista beach access ways at El Embarcadero, Camino Pescadero, Camino Del Sur, Escondido Pass, and Roads End.

Summary of Results

County Parks setup a maintenance contract with the Isla Vista Recreation and Park District (IVRPD) to provide "Green" maintenance services to the Isla Vista locations. All of IVRPD's areas are currently maintained using "Green" methods. Because County Parks is not performing the work at the Isla Vista locations these locations were removed from the pilot project.

In County Service Area 3, Stow and Emerald Terrace open spaces were selected for maintenance using "Green" methods. The sites were maintained using organic non-toxic methods and materials such as organic fertilizers, mechanical mowing, hand hoeing, edging, weed whipping and the application of weed barriers such as mulch. Gophers were to be trapped using mechanical traps. Other pests were dealt with using IPM procedures and techniques. There was an anticipated reduction in pesticide use of 100%. Current personnel and equipment were used. Costs were tracked, monitored, and compared to costs to maintain similar areas using traditional methods and materials. This pilot program began on March 1, 2000 and verbal updates of progress were made to the Ground Management Committee.

Outcome - No herbicides or pesticides were used at the pilot sites.

All weeding was done by hand using mechanical equipment or hand tools. Mowing was done as usual using a power mower. University Village open space was used as the comparison site for this pilot program because it is of a similar layout and acreage as Stow & Emerald Terrace combined. Standard maintenance practices were used at University Village, including chemical weed control.

Hand weeding and mulching of weeds at Stow & Emerald Terrace cost \$8,112 for one year. The labor cost to control the weeds at University Village, using standard chemical materials, was \$767 for the year. Hand maintenance of weeds in developed areas will cost approximately 91% more than chemical maintenance, acre for acre. The appearance of the pilot sites and the control site were comparable. A summary of the data collected follows for your review.

Chemical fertilizer was replaced at the pilot sites with organic fertilizer at a quantity that provided a similar nutrient content (NPK). Three applications of organic fertilizer were required to replace the standard two applications of time release chemical fertilizer used in other county open spaces. The application of the organic fertilizer required the purchase of a special spreader that would work with powdery material. The application of organic materials took about twice as long as the pelletized chemical fertilizer. Labor cost for the application of organic fertilizer for one year was \$780. The cost of applying the chemical fertilizer for one year was \$416. The difference in the costs of the materials was quite dramatic. A one-year treatment with organic fertilizer cost \$2,859, and a one-year treatment of chemical fertilizers for the same acreage cost \$527. Organic fertilizer cost 74% more than chemical fertilizer acre for acre. The appearance of the pilot sites and the control site were comparable. A summary of the data collected follows for your review.

• Data Table: Cost of using Organic Fertilizer instead of Chemical Fertilizer

SANTA BARBARA COUNTY PARK DEPARTMENT

INTEGRATED PEST MANAGEMENT

PILOT PROJECT - JANUARY - DECEMBER 2000 - FERTILIZER - ORGANIC VS. CHEMICAL

Fertilizer Used	Scott's Brand Pro Grow 30-3-9 50 lbs. Bag \$28.00	and	Scott's Brand Ammonium Sulfate 21-0-0 50 lbs. Bag \$6.50		Scott's Ammonium Sulfate University Village	
PROJECT LOCATION	Organic Fertilizer Emerald Terrace & Stow Open Space		Scott's Pro Grow University Village			
	Labor Hours	Number of Bags Used	Labor Hours	Number of Bags Used	Labor Hours	Number of Bags Used
APPLICATION DATES						
Mar-00	10	34	0	0	0	0
Jun-00	10	34	8	17	0	0
Oct-00	<u>10</u>	<u>34</u>	<u>0</u>	<u>0</u>	<u>8</u>	<u>34</u>
NUMBER OF BAGS USED		102		17		34
TOTAL LABOR HOURS	30		8		8	
ANNUAL LABOR COST	\$780.00		\$208.00		\$208.00	
ANNUAL MATERIAL COST		\$2,856.00		\$306.00		\$221.00

Labor costs = \$26/hour. The application of organic fertilizer for one year cost \$780.
Labor costs = \$26/hour. The application of chemical fertilizer for one year cost \$416.

14 more hours were needed
 to apply organic fertilizer
 than chemical fertilizer.

Material costs for organic fertilizer for one year is \$2,856.
Material costs for chemical fertilizer for one year is \$527.

**Using Organic Fertilizer costs 74% more than
 the use of chemical fertilizer, acre for acre.**

Data Table: Cost of performing hand weeding vs. spraying herbicide

SANTA BARBARA COUNTY PARK DEPARTMENT

INTEGRATED PEST MANAGEMENT

PILOT PROJECT - JANUARY - DECEMBER 2000 - Labor Costs Hand Weeding VS. Herbicide Spraying

PROJECT LOCATION	ORGANIC SITE*		ORGANIC SITE		CONTROL SITE**	
	EMERALD TERRACE	NOTES	STOW OPEN	NOTES	UNIVERSITY CIRCLE	NOTES
	Labor Hours		Labor Hours		Labor Hours	
Jan-00	12	Hand w ork	32	Hand w ork	3	Sprayed Weeds
Feb-00	28	Hand w ork	36	Hand w ork	0	
Mar-00	0		16	Hand w ork	0	
Apr-00	12	Hand w ork	20	Hand w ork	10	Sprayed Weeds
May-00	8	Hand w ork	0		0	
Jun-00	12	Hand w ork	0		5	Sprayed Weeds
Jul-00	32	Hand w ork	20	Hand w ork	2.5	Sprayed Weeds
Aug-00	0		12	Hand w ork	2	Sprayed Weeds
Sep-00	0		16	Hand w ork	7	Sprayed Weeds
Oct-00	16	Hand w ork	12	Hand w ork	0	
Nov-00	8	Hand w ork	16	Hand w ork	0	
Dec-00	0		4	Hand w ork	0	
TOTAL LABOR HOURS	128		184		29.5 =Labor Hours	312 =Total Weeding Hours

* These sites were maintained using hand weeding methods - hoes & string weeders.

** The Control site weeds were maintained using herbicide spray.

*** The acreage of the Control Site is equal to the combined acreage of the Organic Sites.

282.5 more hours expended
 doing hand weed
 removal at the
 organic sites.

Labor costs = \$26/hour. Hand weeding the Organic sites for one year cost \$8,112.

Labor costs for spraying the weeds at the Control site for one year cost \$767.

Hand weeding labor costs are 91% more than the labor to spray herbicide spraying, acre for acre.

In north county the pilot project location selected was the Demonstration Garden at the Technical Services Building in Santa Maria. The plan was to maintain the garden using drought tolerant native plants and organic growing & maintenance methods.

The area was maintained using volunteer gardeners, and chemical fertilizers and pesticides were not used as part of the maintenance program. As a pilot site this project provided minimal information because a control site was not established for comparison.

- **Santa Barbara County Park Department's - Annual Pesticide Use Summary**

The following data is for one year from April 2000 through March 2001. This was done to coincide with the Board's adoption of the IPM Strategy last April 2000 and the required annual report to the Board. The data provides a twelve-month base line for the comparison of the quantities of each product used from year to year. The products listed below were applied on various county parks, open spaces and county grounds.

SANTA BARBARA COUNTY PARK DEPARTMENT ANNUAL PESTICIDE USE SUMMARY				
Pesticide (name/type)	Amount Used	Amount Used Prior Year	Applied by County or contractor	Targeted for phase-out?
Roundup PRO	54 gal	57 gal	County Park Staff (Weed Control Post Emergent)	NO
Surflan	22.31 gal	57 gal	County Park Staff (Weed Control Pre-Emergent)	NO
WILCO Gopher Bait II	169 lbs.	160 lbs.	BOTH – Parks, Open Spaces, County Grounds, & Los Carneros Dam	NO
WILCO Squirrel Bait	192 lbs.	24 lbs.	County Park Staff Ground Squirrel Control	NO
Ramik Green Rat Bait	6.5 lbs.	15 lbs.	County Park Staff Rat Control	NO
PESTCON Systems Fumitoxin	10,520 Tablets	0	BOTH (Ground Squirrel Control)	Periodic, Special Use Only

- **Spraying or Fertilizing Pre-Notification of Facility Users**

County Parks instituted a program that requires the posting of notices, in English and Spanish, 48 hours before and 48 hours after the application of herbicides or chemical fertilizers in any of our park, open spaces, or county grounds areas.

- Alternative Weed Control Methods Used or Explored by County Parks

In the past year we estimate that we have used approximately 1,000 cubic yards of wood chips and mulch to assist us in our weed control program. The wood chips come from County Solid Waste and local tree service companies.

We mowed about approximately 35 to 40 acres of weeds three to four times last year. The mowed vegetation was left on the ground.

We set up the demonstration of a Smithco Aquacide environmental weed control system at Ribera open space. The system uses a process in which water is super heated on-demand (up to 280° F+) under very low pressure (less than 40 lbs.) through a boiler type apparatus. The water is then pumped via a high heat resistant hose to a control device, which permits application of the super heated water to the treatment zone. The super heated water destroys the cellular structure of the vegetation being treated killing it. The process uses only water to kill herbaceous vegetation. This is a non-toxic method of weed control. No breathing protection or protective clothing is required for its use, and no harmful by products are produced. It can be used under windy or wet conditions effectively. The process does not endanger people, pets and wildlife.

The effectiveness of the Aquacide process was good. The demonstration site was monitored over a period of four weeks, and the treated area exhibited an effective kill of herbaceous weeds and grasses. At the end of four weeks there was some evidence of new seed growth which would require re-treatment. Another issue that was apparent was that the process of hot water application had to be done slowly to get a good kill of the weeds. This means more staff time using the hot water system. The system does not work well on woody stemmed perennials.

I believe the use of the Aquacide system over time would improve the amount of time needed to do the treatments as a control method. Additionally the use of this type of weed control will reduce the amount of Roundup-Pro and Surflan Parks uses each year, saving the cost of both products too. The real value is that there is no toxic impact on the person doing the application or the facility users. The unit will probably lend itself to other types of use too, such as cleaning sidewalks, restroom floors, and barbecue areas.

County Parks is considering purchasing a unit to use for a season. If the results of use continue to be promising we would consider purchasing additional units. The basic unit costs approximately \$12,000.

Pilot Project for 2001/2002

Parks will continue to operate these pilot projects to gather information and refine the techniques being used and to investigate other IPM methods for maintenance operations. In addition, Parks will purchase an Aquacide unit early next fiscal year. This hot water weed control system will be used at various open spaces in place of Roundup Pro. Time, effectiveness and cost will be tracked for comparison to comparably sized open spaces maintained using Roundup Pro for weed control and edging.

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

Pilot Project Description

The Flood Control District's pilot project for 2000 was aimed at assessing wood chip mulch to control weeds on access ways rather than applying a pre-emergent herbicide. Accordingly a thick layer of chips was applied to an access area on Sycamore Creek at Soledad Street. The results are somewhat mixed. The mulch had to be reapplied twice. In one instance it was apparent that some of the mulch had been removed presumably by someone who just wanted it for themselves and is unaware that this type of material is available free from the Solid Waste Division of the county. In the second case the material had simply biodegraded to the point that the thickness necessary to preclude weed growth wasn't there. More mulch was brought in and spread twice thus solving the problems.

There are two other problems with this method of weed control. The weeds are not controlled as effectively, however, in this particular site and in many others it is not necessary to have the control any more complete than what was achieved. The second problem is potentially more difficult to address. The District has access ways with a wide variety of substrates and topographic features. In some places the use of mulch may make it impossible to drive on the access way i.e. the mulch may hold excessive moisture in the soil, which keeps it muddy. Other agencies have reported this problem.

Summary of Results

The use of mulch is more time consuming and thus is more costly because the mulch takes longer to apply initially and has to be reapplied. The cost estimates in the original description of the project last May were accurate except that the original estimate did not anticipate the reapplication. Thus the herbicide application on this small plot costs about \$10 but the mulch costs about \$200 for the year, all in labor costs.

Pilot Project for 2001/2002

The mulching project will be expanded to evaluate the potential problem of causing vehicles to get stuck by applying it to certain areas where this is most likely. Staff will also investigate whether there is a source of free mulch in the North County (e.g. from the City of Santa Maria's Solid Waste Division) and if there is whether it can be applied more efficiently in larger quantities by the use of equipment.

- Santa Barbara County Public Works Department/Flood Control District - **Annual Pesticide Use Summary**

Pesticide (name/type)	Where Applied (Facility type)	Amount Used	Applied by (County vs. contractor*)	Targeted for phase-out? (Y/N)
Roundup Pro	Dry Creeks	746 gal.	County forces	No
Rodeo	Wet Creeks	264 gal.	County forces	No
Direx	Right-of-Way	581 gal.	County forces	No
Telar	Right-of-Way	67 lbs.	County forces	No

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

Pilot Project Description

The Roads Division chose to try and reduce the use of pesticides on County right of ways for its Pilot Project.

Summary of Results

Roads Division staff first checked into the use of drought tolerant ground cover. This idea turned out to be neither practical nor feasible. The high costs for labor to plant, maintenance and piping for irrigation make this alternative cost prohibitive. Roads Division staff also needs to keep the shoulders free of vegetation for safety reasons tire traction, sight distance, fire hazards.

To replace most of the pesticides with mowing we will have to add more personnel and equipment to each of the 3 Road Divisions. In areas that are sprayed, mowing is usually done once a year, which takes a crew of 2 people, although sometimes, extra personnel are used for traffic control. The mowing season typically runs 5 to 6 months. When mowing the areas that are not sprayed, mowing is done approximately 3 times a year.

We also checked into replacing Round-Up, the pesticide we use most, with a more “bio-degradable chemical (Pelargonic Acid). The herbicide that was suggested by a local nursery, was Scythe. Scythe has a higher Toxicity Class, II, and a Signal Word of warning compared to Round Up with a Toxicity Class of III and a Signal Word of caution and Scythe also costs more than Round Up. Therefore, this alternative was not selected.

Side by Side comparison

	Round-Up (Glyphosate)	Scythe (Pelargonic Acid)
Signal Word	Caution	Warning
Toxicity Class	III	II
Cost per Gallon	\$45 to \$50	\$77
Gallons per acre	one	five to ten
Contractor's price	\$45 to \$50 per acre	\$387 per acre

This makes the application of Scythe eight (8) times the cost of Round Up with a lower success rate.

Last fiscal year, 99-00, due to the lack of rain and lower rate of vegetation growth, we did not contract out any shoulder spraying for this year. For this reason the use of pesticides will be down for the year 2000. Pesticide usage will vary from year to year depending on weather and growth. Due to not using any herbicides for pre-emergence in 2000, there is the probability that we will need to spend more time, and possibly use more pesticides, on weed abatement in 2001. We will continue to use fewer pesticides when and where possible. We will also be working with other departments reviewing and testing new products, and equipment, for weed control, as they become available.

- Santa Barbara County Public Works Department Road Division - **Annual Pesticide Use Summary**

Pesticide (name/type)	Where Applied (Facility type)	Amount Used	Applied by (County vs. contractor*)	Targeted for phase-out? (Y/N)
Round Up	Right of Way	138 gal.	County forces	No

Pilot Project for 2001/2002

LOCATION:

The location of the 01 / 02 Pilot Project will be all roads division wide.

TARGET CHANGE:

Reduce the total amount of pesticides use by cutting back our contracting of annual weed abatement to a bi-annual or tri-annual bases, with the possibility of phasing out the use of contracting.

ESTIMATED REDUCTION IN PESTICIDE USE:

There should be no significant change, possible slight increase due to the discontinuance of pre-emergence uses, in Roundup usage by individual Road Departments.

Cut the use of other pesticides by 50% or more depending on weed growth and the need for contracting.

BUDGET:

Reduction in the cost of contracting outside contractors will be off set by the need for more expensive man & equipment hours.

TIMELINE:

This program will run through the 01 / 02 fiscal year and evaluated on a continuous bases.

Department: General Services
Contact Name: Paddy Langlands
Contact Extension: x3096
IPM Coordinator: Paddy Langlands

Pilot Project Description

The General Services Department selected the County Administration Building for it's Integrated Pest Management (IPM) pilot project. The primary objective of the pilot project was to educate employees about IPM practices and to use a consistent method for requesting pest control services from General Services.

Summary of Results

A program was developed to educate the employees about IPM Methodology and the proper procedures for dealing with pest issues. A pest policy letter was created for the purpose of informing employees about guidelines that they should follow to ensure that pests are not attracted to work areas. The letter advised employees never to use or bring pesticides to the workplace or attempt to treat pests themselves and to call General Services immediately at the first sighting of pests. The letter also assured employees that General Services would identify the nature and source of the problem, use the safest methods and post notices prior to chemically based treatments. The new program also required that the pest treatment providers use safe pesticides only after exploring other alternatives and to provide notice to all affected parties prior to usage.

A meeting was held with the primary pest control provider to ensure that all of their workers were properly trained in Integrated Pest Management and that employees had licenses as structural Pest Control Operators (PCO). As part of their certification, PCOs are required to take educational courses, which keep them up to date on the latest methodology. The County's provider complies with these requirements. The IPM Strategy was also reviewed with the vendor.

The County's pest control provider furnished Material Safety Data Sheets (MSDS) for the chemicals that would be used if non-chemical alternatives were unsuccessful, for the Facilities Manager to ensure the on-site availability of the pertinent information about each chemical. The vendor stores all chemicals off-site at their own facility. General Services does not store shelved pesticides.

A file/log book of all inspections performed and corrective actions taken is maintained by the Facilities Manager. This includes the pest control management work order, treatment methodology and records of pesticides used with quantities and specific location, if applicable.

Note: Due to a vacancy of the Facilities Manager position in the General Services Department this program was not fully implemented. The letter was never actually sent to the Administration Building occupants. However the new management feels that the educational letter would be very helpful and would like to send it out Countywide. For our 2000 - 2001 pilot project we have selected a different facility because the Administration Building does not have much of a problem with pests. As indicated on the spreadsheet below, the in the past year pesticide use is rare.

- Santa Barbara County General Services Department - **Annual Pesticide Use Summary**

Pesticide (name/type)	Where Applied (Facility type)	Amount Used	Applied by (County vs. contractor*)	Targeted for phase-out? (Y/N)
Suspend SC	Exterior	4 oz.	Contractor on 4/29/00	No

2001/2002 Pilot Project

History of Pesticide Use

Building occupants throughout the county do not follow a consistent method for dealing with pest issues. Occupants are not educated in Integrated Pest Management Strategies and there are no published guidelines for pest treatment or precautionary measures taken. As a result, employees are not cognizant of methods used to ensure that rodents and insects have no access to food and water. It is also unclear what procedures to follow for the treatment of pests.

Summary of Current Use

General Services contracts with two pest control service providers. Usage of chemicals and types of treatment are not kept in a log book. A concentrated effort has not been put into using Integrated Pest Management strategies. The providers are called in on an “as needed” basis to control pests. Chemical quantities are not currently available. There are no chemicals stored on site.

Project

- Location
 County Courthouse, Santa Barbara
- Targeted Change
 The primary objective of the pilot project is to educate employees about IPM practices and to use a consistent method for requesting pest control services from General Services. The new program also ensures that the pest treatment providers use safe pesticides only after exploring other alternatives. All affected parties will be properly notified prior to usage. Accurate records will be kept to monitor usage, improve methodology and make an effort to reduce quantities of pesticides used.
- Estimated Reduction in pesticide use
 We believe that the effects of employee education will contribute significantly to an overall reduction in pests since they will not be attracted to work areas.
- Budget
 No significant budget impacts

- **Timeline**
New program to be fully implemented within the next six months

Additional Efforts

In April 2001, General Services staff scheduled two on-site evaluations with the Janitorial Products Pollution Prevention Project, which offers free on-site janitorial chemical reviews in Southern California. Sponsors of the project include US EPA, Cal/EPA Department of Toxic Substance Control, Santa Clara County Pollution Prevention Program, City of Los Angeles, City of Richmond, City of Santa Barbara, and the Local Government Commission. For more information, please see Attachment A.

Appendix A to Attachment B

Date: February 14, 2001
To: Green Team Landscaping Management Committee
From: Mitch Medeiros, Park Operations Supervisor
Subject: Use of Fumitoxin for Ground Squirrel Control

County Parks requests that the pesticide Fumitoxin be added to our Restricted Materials Permit, # 42-00-420-1107 for the purpose of controlling the ground squirrel population at Cachuma Recreation Area at an acceptable level.

In 1994 Cachuma Lake Recreation Ground Squirrel population had reached an unexceptionable level, large burro holes and mounds were present throughout the majority of the 480 campsites and in the playing fields. Many of the squirrels had become semi- domesticated due to the fact that park users were feeding them. Several incidents had occurred involving bites and trip & falls. There is also a threat of Plague, a disease endemic to our area and carried by fleas living on the squirrels.

In 1996 the County Parks contracted with Agri-Turf Supplies to apply Fumitoxin during the off season when visitation was at it's lowest. The County Agriculture Department issued a permit. The infested areas were posted and barricaded for 24 hours after the application. The treatment provided control of the squirrel population at an acceptable level for sometime.

To prevent a quick resurgence in the squirrel population we followed a control program based on UC Pest Management Guidelines that included the use of bait stations and smoke bombs. In order to protect our park users care is taken regarding placement & timing of use of bait stations, and use is usually in outlying areas of the park away from visitor areas. This does not address control issues in the main camping area. For safety reasons, smoke bombs are used exclusively in the camping areas even though they are less effective than bait. At one time trapping was tried, but squirrel relocation is not permitted

We feel that the use of Fumitoxin in this high use camping facility falls within the IPM strategy to insure that County application of pesticides protects and enhances natural resources and protects the public health.

We feel that the use of Fumitoxin is a reasonable control method that should be used when the squirrel population becomes excessive and poses risks to public health. We anticipate that the material will need to be applied every three to four years to gain control of the ground squirrel population. Bait stations and smoke will be used to reduce the population rebound of the squirrel population and reduce the need to use Fumitoxin every year.

Please review the attached Pest Control Recommendation provided by Western Farm Service. The Fumitoxin application would be contracted to Agri-Turf Supplies, a licensed applicator.

Please refer questions to Rick Wheeler, 681-5653.