

**SANTA BARBARA COUNTY
BOARD AGENDA LETTER**



Clerk of the Board of Supervisors
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Agenda Number:
Prepared on: 04/1/03
Department Name: General Services
Department No.: 063
Agenda Date: 5/6/03
Placement: Departmental
Estimate Time: 45 Minutes
Continued Item: NO
If Yes, date from:

TO: Board of Supervisors

FROM: Ronald S. Cortez, Director, General Services
Phil Demery, Director, Public Works
Terri Maus-Nisich, Director, Parks
William Gillette, Agricultural Commissioner

**STAFF
CONTACT:** Rory Lang, Water Resources Division, Public Works (Ext. 3545)

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 2002 - April 2003 Annual Update; and
- B. Accept the Grounds Management Committee 2002 Calendar Year Annual Update on the Integrated Pest Management Strategy.

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:

On April 20, 1999 your Board accepted the project charter of the newly formed Green Team in honor of Earth Week. Since that time, the Green Team has implemented a number of programs, which promote environmental stewardship in County operations. Annually, the Green Team compiles information and provides your Board with an updated report.

On April 4, 2000 your Board adopted the Integrated Pest Management (IPM) Strategy and directed County Departments to implement the procedures for pesticide use outlined in that

document. 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 IPM techniques. As part of the IPM Strategy, a Grounds Management Committee was established to coordinate activities, exchange information, review requests for new products, set goals and evaluate progress. Each department appointed an IPM Coordinator to oversee pilot projects to implement IPM techniques. One of the requirements of the IPM Strategy is to compile a summary of pesticide use along with progress reports for each of the pilot projects to be submitted to the Board of Supervisors on an annual basis as part of the Green Team's Annual Report.

Consistent with these programs and at the direction of your Board, staff has prepared the Green Team 2002 – 2003 Annual Update (Attachment A) and IPM Strategic Plan Annual Update (Attachment B).

Mandates and Service Levels:

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

Fiscal and Facilities Impacts:

Implementing the IPM Strategy does have fiscal impacts for each department. These costs will be outlined in the updates for each division/department in Attachment B.

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 four years, the Green Team has made great strides in implementing a number of on-going programs, which promote environmental stewardship in County operations. The Green Team has compiled the following annual update for your review.

Commingled Recycling Programs

The County Green Team expanded the County's recycling program in 1999 to include commingled recycling in facilities where commingled service was available. During fiscal year 2002/2003, the Solid Waste & Utilities Division implemented new commingled recycling services at eleven County facilities.

The Solid Waste and Utilities Division developed a unique solid waste service schedule for each separate facility utilizing the appropriate waste haulers. The Division purchased commingled recycling carts and boxes for each County facility added to the commingled recycling program. The Division then provided employees in each facility with information on how to participate in the program. The eleven County facilities that were added to the commingled recycling program in 2002/2003 include the following locations:

| | | |
|------------------------------------|---------------------------|-------------|
| Child Support Services | 401 East Ocean Street | Lompoc |
| Fire Department, Station 17 | UCSB, Mesa Road, Bldg 547 | Goleta |
| Fire Department, Station 18 | 17200 Mariposa Reina | Gaviota |
| Fire Department, Station 31 | 168 W Hwy 246 | Buellton |
| Fourth District Supervisors Office | 401 East Ocean Street | Lompoc |
| Probation Department | 115 Civic Center Plaza | Lompoc |
| Public Defender | 312-A & B Cook Street | Lompoc |
| Public Health Department | 301 North "R" Street | Lompoc |
| Public Works Roads Division | 624 West Foster Road | Santa Maria |
| Social Services | 218 West Carmen Lane | Santa Maria |
| Superior Court | 312-C Cook Street | Lompoc |

The County General Services Department/Facilities Division oversees approximately 150 buildings. Currently 96 (64%) of these buildings have commingled recycling service. The remaining fifty-four facilities that still need recycling service include a number of examples where commingled recycling is difficult to implement due to limited access and leasing situations. The Solid Waste & Utilities Division is currently working with Los Prietos Boys Camp to implement increased recycling service. Each situation is unique, and a great deal of coordination is necessary to implement these programs.

For fiscal year 2003/2004, the Green Team will analyze the trash and recycling service levels at many County facilities in order to make sure that the service levels for both are adequate, neither

too seldom nor too frequent. This analysis will allow the Green Team to ensure that waste from County facilities is being handled in the most cost-effective manner possible.

The Green Team and the Solid Waste & Utilities Division will continue to update recycling programs at County facilities in order to reduce the amount of waste sent to the landfill each year and to increase the overall waste diversion rate for the County of Santa Barbara.

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 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.

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. On a regular basis, General Services delivers the batteries to the Community Hazardous Waste Collection Center, located at the University of California, Santa Barbara (UCSB) campus. Since April of 2001, the County has collected and diverted 888 pounds of batteries from our landfills.

Energy Efficiency at the County

In July 2001 the Board of Supervisors directed the General Services Department to take steps to reduce energy consumption in County facilities. The County spends over \$2.5 million a year for energy at all County facilities and each year, energy costs increase. The Green Team and General Services have been working throughout the County to reduce energy use to the most efficient possible level without affecting the ability of employees to work productively.

Facility Retrofits: General Services implemented a large-scale project in county facilities to replace inefficient lighting, upgrade heating/cooling systems, and minimize the use of lights in lobbies and hallways. The lighting retrofit project is 98% complete. The targeted completion date for the remaining retrofits is June 30, 2003. These efforts have been rewarded with \$52,866 in rebates from the electric utilities and the promise of saving over approximately \$200,000 each year on energy bills. There are three large scale Air Conditioning/Heating (HVAC) retrofits presently being undertaken which will result in more efficient control and use of energy. These should be completed by December 2004 depending on funding.

Employee Awareness: The Green Team has been promoting efficient use of energy through cost effective employee and public education measures, which help minimize the impact of increasing energy costs for the County. To encourage and educate employees, a network of energy conservation "advocates" has been established, representing each department and each facility. These advocates have received special training and are

responsible for encouraging employees in their building to use energy efficiently. The Green Team and energy advocates have distributed tips to employees which include: reducing lighting, using stairs instead of elevators, turning off appliances and computers when not in use, properly maintaining appliances and notifying General Services about any problems that might be resulting in wasted energy. Employees are reminded of these tips through periodic e-mail reminders and information contained on the Green Team website.

Recent energy efficiency efforts have been successful. Energy use in County facilities declined over 9% between 2000 and 2001. In North County, the reduction was a substantial 25%. Though energy use data for 2002 is incomplete, energy use in South County fell another 5%.

A Note on Green Energy: In 1999, General Services did a comprehensive search for reliable energy suppliers that provide energy from renewable sources, such as wind and solar power, geothermal and biomass technologies and found one or two sources that had excellent governmental references. However, due to the uncertainties in the market and the volatility of alternative energy suppliers, General Services with the backing of the Green Team decided that the timing was not good for switching any meters to green energy. Instead, the focus has been on energy efficiency through facility retrofits and employee outreach. The County will recommend pursuing green energy when the time is right.

Integrated Pest Management

The IPM Strategy, which was adopted by the Board of Supervisors in April 2000, is currently being implemented through a series of pilot projects and the activities of the Grounds Management Committee. The Grounds Management Committee continues to meet quarterly to discuss pilot projects, training workshops and classes, opportunities for joint purchases of equipment for IPM practices and IPM strategy implantation. Please see Attachment B for the fiscal year 2001/2002 updates.

Hybrid Vehicles

The County's Motor Pool fleet now has three Toyota Prius hybrid cars; including one each in the motor pools at the downtown Santa Barbara Administration Building, the Calle Real Center in Goleta and the Betteravia Government Center in Santa Maria. The County has been approved to receive grant funds through the Santa Barbara County Association of Governments to purchase 10 more hybrid vehicles, and should be able to order 10 more hybrid vehicles in 2003. The grant funding will pay 90% of the vehicle cost and the County will pay the remaining 10%. In an effort to facilitate the process for requesting the use of the hybrid vehicles, the General Services on-line motor vehicle reservation form now includes an option for requesting the hybrid specifically.

The downtown Santa Barbara Administration Building motor pool also has a Ford Think electric vehicle available for use by all employees. The Think is great for short downtown commutes

and is approved to operate on public roadways where the speed limit is under 35 MPH. The Think has a range of approximately 40 miles. The Ford Motor Company donated the Think to Santa Barbara County through their Electric Vehicle Program. The County will soon have 12 additional electric vehicles through the GM Electric Vehicle Program. The 12 vehicles will be used by General Services, Public Works, the Sheriff's Department and the Parks Department.

Water Efficiency

In February 2003, the Green Team began planning efforts to purchase and install waterless urinals in County facilities as a water efficiency pilot project that would save water in County facilities and serve as a demonstration project for developers who are planning to build CII facilities within the county. The Green Team submitted a grant proposal to the US Bureau of Reclamation to provide funding for this project. Each waterless urinal in a public facility saves an estimated 40,000 gallons of water per year. By undertaking this as one of their main priorities in 2003/2004, the Green Team will help promote the efficient use of water to County employees and the public and reduce utility costs in the facilities where the pilot project is initiated.

Attachment B

On April 4, 2000 the Santa Barbara County Board of Supervisors adopted the Integrated Pest Management (IPM) Strategy and directed County Departments to implement the procedures for pesticide use reduction outlined in that document. Since that time, a number of actions have been taken by County staff to fulfill all fourteen of the recommended steps in the IPM Strategy Implementation Plan.

The Grounds Management Committee (GMC), which is made up of the IPM Coordinators from each department, was established immediately following the Board's adoption of the IPM Strategy in April 2000. The GMC has met quarterly to coordinate activities, exchange information, review requests for new products, set goals and evaluate progress. Each year, the IPM Coordinators have initiated and managed IPM pilot projects for their department in an effort to find cost-effective ways to reduce pesticide use in their operations. They have provided annual updates to the Board of Supervisors documenting the results of these pilot projects each year. (The 2002 Calendar Year updates are included in this Attachment following this general overview.) The Agricultural Commissioner's Office currently maintains the County-wide Pesticide Database, which tracks the types of pesticides used by each department and the amount used annually (calendar year).

The GMC has also conducted a review of the pesticides used by each department and has found that none of these pesticides are Tier 1 (most hazardous) pesticides. This means that the pesticides that are used by County departments are the least hazardous alternatives available at this time and none of these chemicals are currently targeted for phase out. Procurement procedures for acquiring pesticides have also been amended to allow for the requirements of the IPM Strategy.

Members of the GMC (particularly representatives from the Parks Department) have been actively reviewing and making recommendations for Landscape Plans for new construction and renovation projects in County-owned facilities.

The GMC has also established and utilized a process for reviewing requests for the use of new products by each department. The department that wished to begin using a new product submitted a written request to the Agricultural Commissioner's Office and members of the GMC for review. Discussion of the request was conducted at the next quarterly meeting. During the last three years, only two requests for new products have been submitted, one for use of Fumitoxin tablets for ground squirrel control by the Parks Department in April 2001 and one for use of Merit for giant white fly control by the Agricultural Commissioner. Both of these requests were approved for a one-time application.

In addition, the Parks Department incorporated language in their Request for Qualifications for hiring a Pest Control Advisor (PCA) that incorporated the requirements of the IPM Strategy and specifically requested PCAs with IPM experience. The General Services Department is in the

process of including similar language in their contract requirements for pest control services within County buildings.

The development of the GMC has also facilitated the sharing of equipment and funding used in IPM techniques. The Parks Department and Public Works Department jointly purchased an Aquacide Environmental Weed Control System.

This year, the GMC also reviewed and revised the IPM Strategy to more accurately reflect the progress that has been made and to provide guidance for future actions. The newly revised IPM Strategy is attached (Attachment C).

The General Services Pilot Project for 2002 involved employees in the Administration and Engineering Building in downtown Santa Barbara. Those employees each received a memorandum from the General Services Department outlining the steps they should follow if they are experiencing a pest problem. The results of this program are outlined in the GS Department's annual update below. In December 2002, all County employees received an email "Message from the Green Team" reminding them how they could help prevent pest problems and thereby reduce the need for pesticide use in County facilities.

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, 2002 through February 28, 2003.

The Santa Barbara County Park Department (Parks) contracts for Pest Control Advisor (PCA) services with a local vendor that does not provide Parks with pest control materials or treatment services. 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 provides Parks with recommendations for dealing with specific pest problems at our facilities.

Parks participated in the quarterly meetings of the Grounds Management Committee (GMC), a sub-committee of the Green Team, and has an IPM Coordinator (IPMC) that supervises the department's program. The IPMC also set up Park's annual spring training in IPM and chemical pest control.

Emerald Terrace and Stow Canyon, Goleta City parks maintained by Co. Parks, are operated and maintained as IPM pilot sites. The pilots were established in March 2000. IPM and organic methods are used as the maintenance standard at both sites. Weed control is done using propane-fired torches, the Aquacide (super heated water) unit, and mechanical methods at fence lines and sidewalk cracks. These weed control methods are also being used in several other parks and open spaces, contributing to Parks reduced use of herbicides. The pilot sites are monitored for labor and material costs, as well as appearance. Ongoing data collection confirms the increased costs of landscape maintenance using IPM and organic methods vs. standard practices.

The table below indicates how much an average worker can accomplish using various weed control methods. The average labor cost is also shown. The data was collected over the last fifteen months.

| Weed Control Method | Number of Square Feet Treated per Minute & Avg. Labor Cost per Min | Notes |
|----------------------------|---|--|
| Pesticide (RoundUp Pro) | 60 Sqr. Ft. / Min. Avg. Costs \$0.31/ min (2 times /Yr.) | Labor-wise, this is the most productive weed control method of the group listed. However, you must spray twice a year, \$450/ac. & there are toxicity and application issues to deal with. |
| Aquacide Unit (Hot Water) | 12 Sqr. Ft. / Min. Avg. Costs \$1.55/ min (2 times /Yr.) | This method takes about 5 times as long as weed spray but it is a flexible & less toxic control. Must be done at least twice a year, \$11,252/ac. |
| Hand Weeding (Hoe, etc.) | 6 Sqr. Ft. / Min. | 10 times slower than spraying and 2 times |

| | | |
|---|---|---|
| | Avg. Costs \$3.10/min (4 times / Yr.) | slower than hot water applications. No toxicity issues. Might be done 4 times a year, \$90,024/ac. |
| Hand Weeding (Mechanized Hand Tools) | 51 Sqr. Ft. / Min. Avg. Costs \$0.37/ min (4 times / Yr.) | 1.2 times slower than spraying. No toxicity issues. However, this operation must be performed 4 times a year, \$1,059/ac. |

Parks participated in the Regional IPM Coalition that was established and sponsored by the Community Environmental Council with grant funds they received from the State. Parks was also a member of the group's Policy Advisory Subcommittee, which created a model policy, *Important Elements of an IPM Policy/Strategy*, that allows school districts, city or county government agencies that are interested to develop an IPM strategy or policy by choosing elements that will work in their programs. A substantial portion of what is contained in the governmental section of the model document was taken from the *IPM Strategy* developed by the Green Team's Grounds Management Subcommittee and subsequently approved by your Board.

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

The following data reflects pesticide use from January 1, 2002 through December 31, 2002. A calendar year reporting period was selected by the Grounds Maintenance Committee as the best way to present this data since it provides a twelve-month seasonal base line for the comparison of the quantities of each product used from year to year. The products listed below were applied at various county parks, open spaces, and county grounds.

| SANTA BARBARA COUNTY PARK DEPARTMENT ANNUAL PESTICIDE USE SUMMARY | | | | |
|--|---------------------------------|---------------------------------|---|------------------------------------|
| Pesticide (Name/type) | Amount Used 2002 | Amount Used 2001 | Applied by County or contractor | Targeted for phase-out? |
| Roundup PRO | 28.77 gal | 32 gal | County Park Staff (Weed Control Post Emergent) | NO |
| Surflan | 2.82 gal | 7.5 gal | County Park Staff (Weed Control Pre-Emergent) | NO |
| WILCO Gopher Bait II | 161.83 lbs. | 152.6 lbs. | BOTH – Parks, Open Spaces, County Grounds, & Los Carneros Dam | NO |
| WILCO Squirrel Bait | 103.85 lbs. | 100.75 lbs. | County Park Staff Ground Squirrel Control | NO |
| PESTCON Systems Fumitoxin | 0 Tablets | 0 | BOTH (Ground Squirrel Control) | Periodic, Special Use Only |

It should be noted that quantities used are a reflection of several factors. There was a conscious effort on the part of staff to use less herbicide by trying other weed control methods such as flame torches, hot water, infra-weeder, mechanical, and hand removal. Weather always plays a

role in the quantity of herbicide used, as does the level of staffing available to devote to more labor-intensive weed control methods. The winter weather (Jan – Mar) was drier than usual resulting in less weed growth and less need for herbicidal controls. The drier winter also means a shorter weed-growing season in the spring. In addition, Parks continues to use little or no herbicides at a large number of 2nd Supervisorial District unincorporated open spaces.

Staff believes that the increased use of gopher bait is a reflection of the drier winter, since gophers are attracted to areas that are irrigated (lawns & shrub beds) and surrounding, unmanaged habitat is generally dry. It has also been observed that dry winters probably contribute to a higher survival rate among the gopher's litters.

One new pesticide product was added to our permit on a test basis this year. In cooperation with the Agriculture Commissioner's office, Parks added Merit to our pesticide permit. This addition was reviewed and sanctioned by the Green Team's Grounds Maintenance Committee for the control of Giant White fly on a hibiscus shrub located near the Agriculture Commissioner's office. There is currently no known control for this pest, and it attacks several species found in our County Grounds landscapes. The Merit application followed on the failure of large scaled releases over the last two years of two species of parasitic wasps. Both species of wasp are present on the Hibiscus but have failed to control the white fly population. The Merit drench was recent, last February 18th, and results are not known at this time.

Staff continues to pre-notify park users by posting signs before and after the application of pesticides and fertilizer. The English/Spanish notices are placed on site 48 hours before and removed 48 hours after each application where these materials are used.

Regarding rodent control, three "Rat Zapper" units were purchased and used in several of our parks with some success. The "Rat Zapper" is a baited, battery powered device that delivers a lethal dose of electricity to kill the rodent. We are using the units in buildings where poisons or snap traps might not be appropriate. The unit may be used outside if properly protected from public tampering and placed so that pets smaller than ten pounds cannot gain access. Each unit costs approximately \$50 and is powered with "AA" or "D cell" batteries.

Alternative Weed Control Methods Being Used or Explored (Other than herbicide applications)

Mulch - In the past year staff placed approximately 2,000 cubic yards of wood chips and mulch to assist in our weed control program. The materials came from County Solid Waste and local tree service companies.

Mowing – We mowed approximately 40 acres of weeds three or four times last year, until the weeds dried up and quit growing. All of the mowed vegetation was left on the ground.

Hot Water - A Smithco Aquacide Environmental Weed Control System was used for weed control. The system provides super heated water (up to 280° F+) under very low pressure to destroy the cellular structure of the vegetation being treated killing it. This unit provides us with a non-toxic method of weed control. Operation of the equipment doesn't require State certification. Breathing protection or protective clothing is not required when using it, and no

harmful by products are left on the ground. The system can be used in windy or wet conditions effectively, and does not endanger people, pets, and wildlife. It is used to create mowing strips along roadways, fence lines, walkways, curbs, etc. Pre-notification postings are not required when using this unit.

Weed control using the Aquacide process is good, however, re-treatment is required as new growth occurs. This problem is common with RoundUp Pro, too. To work properly the hot water must be applied slowly, which increases the labor costs of controlling weeds with this method. The system does not work well on woody perennials.

The use of the Aquacide system contributes to cost reduction by reducing the amount of herbicide purchased for perimeter weed control. However, its real value lies in the lack of toxic impact on the operator, the facility users, and the environment. Parks will continue to use this equipment for revegetation projects and routine weed control as staffing permits.

Propane Flame Unit – This unit consists of a torch type flame device attached by a hose to a portable Liquefied Petroleum Gas bottle. The torch flame produces a heat up to 2000 °F. This high heat, when applied briefly to a growing weed, causes the plants cells to burst killing it. The goal is to disrupt the weeds cellular activity not to burn it to ashes, and caution must be used to prevent fire. The units can be safely used in playground sand, decomposed granite paths, cracks in pavement and roadways, etc.

Infra-Weeder – This unit consists of a ceramic plate that is super heated by a LPG flame. It kills by applying intense heat to the weed bursting the cell walls of the plants. The application rate takes at least twice as long as spraying herbicide. The results obtained using the Infra-Weeder are comparable to the LPG Flame unit. It works well on paving cracks, gravel and decomposed granite paths, playgrounds with sand fall zones, and for mowing edges in irrigated lawn. Caution must be used to prevent fires.

Park's weed control program includes the use of all of the techniques noted above. In addition, two other weed control techniques were selected as pilot projects for this year.

Weed Fabric & Mulch – Staff installed 1600 square feet of weed fabric and covered it with mulch in shrub beds containing large signs and plantings, in shrub beds bordering sidewalks and curbs, and around permanent landscape structures like vacuum breakers. This application significantly reduced the amount of weed control maintenance required to keep these areas weed free. Initial installations required that soil be removed at each site to create sides that would retain/contain the mulch under rainy and windy conditions. Staff found that weed fabric and mulch do not work well in areas where the public walks through shrub beds because the fabric moves around and the mulch is kicked out of the bed. When this happens the mulch must be removed and the fabric relayed. The same thing happens due to occasional animal activity, i.e. raccoons and skunks digging for grubs. However, in most situations, the fabric and mulch perform well and reduce the amount of weeding needed to keep the areas neat and weed free. This effect is expected to extend over several seasons. Fabric will have to be replaced every few years, and the mulch will need to be topped off as it decomposes.

Mulching, Rototilling, & Mowing – Several open spaces were heavily mulched and then mowed or rototilled as weeds grew up through the mulch, the deeper the mulch the fewer the weeds that penetrated it. Mowing and tilling controlled weed growth if performed regularly and if the mulch was maintained as a thick layer. After the initial layering of mulch, the time spent maintaining these locations was approximately half to two-thirds the time multiple mowing would have required. One of the drawbacks is the lack of good, clean smelling mulch materials. The mulch available from the transfer station has an offensive sour odor and cannot be used close to neighbors. This would not be the case with well-composted mulch, and the problem does not occur when using clean wood chips from tree trimming.

Both of these pilot projects were successful in controlling weeds and workable if the appropriate mulch materials are regularly available, funding for fabric is provided, and staffing levels permit their installation and maintenance.

Pilot Projects for 2003 – 2004

In cooperation with the Community Environmental Council, Parks hopes to participate in the development of a pesticide use “zone” information system designed to communicate to interested park users what chemicals, if any, are being used for pest control and where such materials are applied within the park. The zones would be identified, probably, with color-coding on the site map and corresponding colored markers in the field. The materials applied at each marked location would be listed along with an appropriate information phone number. The Community Environmental Council is currently seeking grant funding for project support and implementation from State funding sources.

Parks will continue to implement those IPM methods that have resulted from successful pilot projects, and expand them into current operations as budget and staffing resources permit.

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

In response to the Board of Supervisors adopted **Integrated Pest Management Strategy** the following summarizes the Flood Control Districts activities for the period, March 2002 to April 2003.

Activities associated with the Steps outlined in the Strategy

Staff participated in quarterly meetings of the Grounds Management Committee (GMC), and appointed a staff member as Pest Management Coordinator (PMC) to manage the departments IPM program. The only new chemical controls or products that were requested or added to our use list were two forms of the same product to control mosquitoes. Our Department PMC also set up the annual training in IPM and worker safety for department staff last spring, as he will this spring. The District also sent staff to Integrated Pest Management training.

The District routinely posts notices, in English and Spanish, 24 hours before an application of herbicides is to be made in all locations where these materials will be used. The notices remain in place for at least 24 hours after the application. (This has been a District practice since 1992).

Alternative Weed Control Methods Being Used or Explored (Part of steps 5, 6, and 7. Overall Pesticide Use Reduction, Eliminating use of most hazardous pesticides and Phasing-out Targeted Chemicals).

Mulch - In the past year we estimate that the District has used approximately 2,000 cubic yards of wood chips and mulch to assist us in our weed control program. The wood chips come from County Solid Waste.

Mechanical – In place of herbicides, vegetation control will be augmented with mechanical mowing. To assist in maintaining efficiency, the Flood Control District Budget for FY 2003-04 will include the purchase of a mower.

The Strategy recognized that the need to add a new material might arise. This past year the District followed the process described in Step 9 to add Vectobac in response to calls from constituents in several areas of the county who were concerned about mosquitoes that they thought were coming from District property. In one instance mosquito larvae were observed in pools that are part of the fish ladder at the Montecito Debris Basin. Vectobac is one of the materials used by the Santa Barbara Coastal Vector Control District and after approval as outlined in the Strategy this larvaecide was applied to the pools with the desired effect.

The District has also researched alternative pest control pieces of equipment, products and techniques; an item that was listed under “Future Actions” in the Strategy adopted by the Board in 2000.

| Santa Barbara County Public Works Department/Flood Control District Annual Pesticide Use Summary | | | | |
|---|-------------------------|-------------------------------------|------------------------|-------------------------------------|
| Pesticide Name | Amount Used 2001 | Amount not to exceed in 2002 | Actual Use 2002 | Amount not to exceed in 2003 |
| Glyphosate ¹ | 1233 gal. | 986 gal. | 452 gal. | 789 gal. |
| Diuron | 805 gals. | 644 gals. | 443 gals. | 515 gals. |
| Telar | 62 lbs. | 50 lbs. | 32 lbs. | 40 lbs. |

Notes on the Table

1. Glyphosate is the active ingredient in both Round Up and Aqua Master (formerly Rodeo)
2. Amount used in 2001 is the basis for calculating reductions for the succeeding year.
3. 2001 base amount less 20%.
4. 2002 target less an additional 20%.

It should be noted that the reduction in materials used from 2001 to 2002 is a result of several things. There was a conscious effort to use less herbicide by using other weed control methods such as mulch, mechanical and hand removal. Staff set a volume target to not exceed. Weather also played a role in reducing the quantity of herbicide used. The winter was dryer than normal, resulting in less weed growth. There was also a decision to use little or no herbicides at several access road or other right-of-way sites. In those areas weeds are being controlled using techniques other than spraying.

District staff believes, taking all the preceding factors into consideration, another reduction of 20% off the 2002 Target can be achieved in 2003. Beginning July 1, 2003, staff will also switch the tracking period for herbicide use from calendar year to fiscal year.

Pilot Project Description

The Flood Control District’s pilot project for 2002 was aimed at further assessing wood chip mulch to control weeds on access ways rather than applying a pre-emergent herbicide. In addition to continuing the application started last year on an access area next to Sycamore Creek at Soledad Street, mulch was applied to an access road along a tributary to Devereux creek in an attempt to evaluate a problem noted in last years report. The problem identified by field personnel is a function of the fact that a very thick layer of mulch has to be laid down to prevent most of the weed growth. That thickness of mulch, on certain types of soil, where some District access roads are, can keep the substrate so wet that it is likely that equipment would not be able to use the access road during the winter. This problem occurred at the Devereux site last year.

This past fall it did rain about six inches in the two days prior to the District starting the Lower Devereaux Creek (Ocean Meadows Golf Course) project. The first truck that came in to haul the

material out that was being removed from the creek got stuck. The mulch had to be pushed aside by a dozer and small rock and road base gravel had to be brought in to make it passable for the trucks. The mulch can now be applied over that road to minimize weed sprouting and to help keep dust down since the rock and base are in place but it does show us that the use of mulch has to be selective and take the existing substrate into account.

As noted in last years report the weeds are not controlled as effectively using mulch as when the area is sprayed with an herbicide, however there are many areas where it is not necessary to have the control any more complete then what was achieved.

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 last year's description of the project were accurate except that the original estimate did not anticipate the reapplication. Thus the herbicide application on the Sycamore site would still cost about \$10 but the mulch cost about \$200 for the year, all in labor costs (the site is small so the mulch has to be spread by hand). Similarly the Devereux site would have cost about \$20 to spray (even though it is a much longer stretch) and about \$240 to mulch each time because a piece of equipment can be used to spread it. Thus the total cost to mulch the Devereux site is \$480 for the year.

Staff have also investigated the use of mulch in the North County. Areas where mulch will work there have been found, especially where the substrate is sandy and the problem of equipment getting stuck has not developed. Thus this is a useful weed abatement tool and will be used as appropriate.

This past year the District implemented another pilot project. The use of pre-emergent herbicide was discontinued on certain portions of the Santa Maria River Levee. Specifically, the District did not spray the lower levee road or the slope of the levee on the side away from the river. The pilot project on the levee has not progressed to the point where any meaningful results can be reported at this time. Due to last winters lack of rain there was insufficient growth of weeds to require any vegetation control thus no funds were expended and no cost comparison can be made.

New Pilot Project for 2003/2004

This winter most of the county has experienced an average amount of rainfall and there is growth apparent in all areas the District normally needs to do vegetation management. The other areas that were referred to above will have mulch applied and the new areas in the vicinity of Orcutt and Santa Maria will be monitored.

Another project will be evaluating the use of a mower on access roads and along the Santa Maria River Levee. These areas have been sprayed in years past with a pre-emergent and the cost to do that is known. This past winter the pre-emergent was not applied in several areas and with the growth that is becoming apparent staff will have the opportunity to evaluate different types of mowers and costs can be tracked to compare with the other methods of vegetation management that have been evaluated by the District, as well as those evaluations made by the Parks Department and the Roads Division of Public Works.

District staff will also be reviewing all of the sites that have been in the spray program in the past prior to any further application to insure that there is a clear necessity to continue treating those sites. It is possible that some sites can be removed from treatment and simply prepped mechanically if or when access is needed.

Department: Public Works – Transportation Division
Contact Name: Gary Christiansen / Scott Roberts
Contact Extension: X3336 / X7773
IPM Coordinator: Gary Christiansen / Scott Roberts

The 2002 Pilot Project for the Transportation Division was to monitor the use of Merit for treatment of severe cases of aphid infestations. A contractor injects Merit directly into the tree trunk, thereby ensuring that there is no spray or residue on or around the trees. The County’s use of Merit directly corresponds to the type and amount of infestations and will change from year to year.

In 1999 the Transportation Division contracted with a local provider to spray a majority of the shoulders within County right-of-way. Beginning in 2000 the Division restricted most pesticide use to in-house spraying of weeds growing in the cracks of pavement. This was completed prior to resurfacing of the pavement. The Division eliminates weeds to prevent growth from damaging the new surface of the roadway. Additionally the Division has eliminated three herbicides; Oust, Karmex and Surflan.

The figures below break down the pesticides to pounds of active ingredients, (i.e., 4lbs Glyphosate is contained in one gallon of Round Up). This method of comparison provides accurate quantification between liquid herbicides and dry herbicides. Garlon* 4 (Triclopyr) is used exclusive on tree stumps to stop re-growth and the sprouting of ‘suckers’ from the roots of trees that have been removed. The Summary below shows the reduction of the Transportation Division’s annual pesticide usage from 1999. Round Up, Garlon & Merit is used countywide and will not be targeted for phase out.

| Santa Barbara County Public Works Department/Roads Division Annual Pesticide Use Summary | | | | |
|---|------------------------------|---------------------|---------------------|------------------------------------|
| 1999 Pesticide Usage: Active Ingredients | | | | |
| Product | % Active Ingredient | Manufacturer | Actual Usage | Pounds of Active Ingredient |
| Oust | 75% Sulfometuron | DuPont | 28.44 lbs. | 21 lbs. 5 oz. |
| Karmex | 80% Diuron | DuPont | 910 lbs. | 728 lbs. |
| Surflan | 4lbs.per gal. Oryzalin | Dow | 122 gal. | 30 lbs. 8 oz. |
| Merit | .11% Imidacloprid | Bayer | 19 lb. 7 oz. | 2 oz. |
| Round Up | 4lbs. per gal. Glyphosate | Monsanto | 158 gal. | 39 lbs. 8 oz. |
| Total pounds of Active Ingredients | | | | 819 lbs. 7 oz. |

| Santa Barbara County Public Works Department/Roads Division Annual Pesticide Use Summary | | | | |
|---|----------------------------|---------------------|---------------------|------------------------------------|
| 2000 Pesticide Usage: Active Ingredients | | | | |
| Product | % Active Ingredient | Manufacturer | Actual Usage | Pounds of Active Ingredient |
| Round Up | Glyphosate | Monsanto | 171 gal. | 42 lbs. 12 oz. |
| Garlon*4 | Triclopyr | Dow | 8 oz. | 1.2 oz. |
| <i>Total pounds of Active Ingredients</i> | | | | 42 lbs. 13 oz. |

| Santa Barbara County Public Works Department/Roads Division Annual Pesticide Use Summary | | | | |
|---|----------------------------|---------------------|---------------------|------------------------------------|
| 2001 Pesticide Usage: Active Ingredients | | | | |
| Product | % Active Ingredient | Manufacturer | Actual Usage | Pounds of Active Ingredient |
| Round Up | Glyphosate | Monsanto | 116 gal. | 29 lbs. |
| Garlon*4 | Triclopyr | Dow | 32 oz. | 4.9 oz |
| <i>Total pounds of Active Ingredients</i> | | | | 29 lbs. 5 oz. |

| Santa Barbara County Public Works Department/Roads Division Annual Pesticide Use Summary | | | | |
|---|----------------------------|---------------------|---------------------|------------------------------------|
| 2002 Pesticide Usage: Active Ingredients | | | | |
| Product | % Active Ingredient | Manufacturer | Actual Usage | Pounds of Active Ingredient |
| Round Up | Glyphosate | Monsanto | 65 gal. | 16 lbs. 4 oz. |
| Garlon*4 | Triclopyr | Dow | 11 oz. | 1.7 oz. |
| Merit | Imidacloprid | Bayer | 4 lbs. 7 oz. | 8 oz. |
| <i>Total pounds of Active Ingredients</i> | | | | 16 lbs. 14 oz. |

From 1999 to 2002 the Roads Division has reduced the total use of pesticides by 98%. The Division will continue to monitor usage and will continue to work with the Grounds Management Committee to explore alternative methods of weed control.

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

Pilot Project Description

For the year 2002/2003, the Santa Barbara Courthouse (Building F005) was used as the pilot building. Historically the Courthouse has been known to have more pest related problems than other buildings, most notably rodents.

The objective for this pilot project was to reduce the amount of pesticides that are used and stored by County employees on site. This objective was to be achieved by generating a base measurement for requests for pest control in the Courthouse, and then notify all County staff of the Pest Services Request Policy (See Attachment B1). General Services staff would then measure the number of requests for pest control over a similar period of time to determine if there is an increase in the number of requests made. By educating employees about IPM practices and using a consistent method for requesting pest control services from General Services, the new program should result in the elimination of shelved pesticides within County facilities.

Prior to the implementation of this new program, building occupants did not follow a consistent method for dealing with pest issues. Occupants were not educated in IPM and there were no published guidelines for requesting pest treatment or taking precautionary measures. As a result, employees were not cognizant of methods used to ensure that rodents and insects had no access to food and water. It is assumed that many employees were purchasing pesticides on their own and applying them within the building.

Summary of Results

The baseline measurement for pest related requests for the Courthouse was taken from February 2001 until March 2002. During this time, there were three pest related work orders in the Courthouse. On March 27, 2002, a memorandum describing the appropriate method of requesting pest control services from General Services in accordance with the IPM policy was sent out to all County employees. During the period April 2002 through March 2003, there were four pest related work orders for the Courthouse.

Due to the low number of pest related work orders from year to year it is difficult to determine if the policy had a major impact but over the year we have not found evidence of departments storing pesticides on site. In addition, the distribution of the memorandum also served as a reminder to employees on how to prevent pest problems. It is encouraging to see so few pest related complaints and this could be an indication that County employees are adhering to the IPM policy and making use of preventative measures.

Continuation of Project for 2003/2004

General Service’s staff will continue to monitor the number of requests for pest services in the Courthouse. In March 2004, staff will conduct a comparison of 2002/2003 requests and 2003/2004 requests to determine if the Pest Services Request Policy is a viable option for achieving the goals of the IPM Strategy adopted by the Board in 2000.

| Santa Barbara County General Services Department – Annual Pesticide Use Summary | | |
|--|----------|----|
| Western Exterminator – SB – Total Usage 2002 | | |
| <u>Chemical</u> | Quantity | UM |
| Borid | 1.12 | lb |
| Maki Block | 124.75 | lb |
| Tempo 20WP | 2 | gr |
| Terro Ant Killer II | 7 | oz |
| Dragnet SFR | 97.13 | oz |
| Suspend SC | 0.5 | oz |
| Talstar CA Granular | 69.5 | lb |
| Talstar Lawn & Tree Flowable | 24.06 | oz |
| Advance Granular Carpenter Ant Bait | 10 | oz |
| Glue Board | 51 | ea |
| Western Rat Trap | 32 | ea |
| Bell Protecta Rat Station | 10 | ea |
| Tin Cat | 2 | ea |
| Bell Protecta LP Rat Station | 37 | ea |
| Hydrex - North County | | |
| PCQ | 44 | Lb |
| Talon G | 7 | lb |
| Talstar Granuals | 116.5 | lb |
| Cy-Kick | 111 | oz |
| Tempo WP | 48 | oz |
| Delta Dust | 16 | oz |
| Suspend SC | 8 | oz |

Attachment B1: Pest Services Request Policy



Date: March 27th 2002
To: All County Employees
From: Paddy Langlands, Facilities Manager
Subject: New Pesticide Policy

The County of Santa Barbara Green Team Pesticide Sub Committee has adopted an integrated pest management strategy to protect public health and the environment. **Integrated pest management (IPM)** is the blending of all effective, economical and environmentally sound pest control into a single but flexible approach to manage pest populations within acceptable limits. Your cooperation and support is greatly appreciated. Please help us to minimize and hopefully eliminate rodents and insects by adhering to the following procedure:

- 1. Follow these steps to ensure that pests are not attracted to your area:**
 - Don't keep open unsealed foods in desks or equipment. Use only tightly sealed containers that are rodent resistant.
 - Clean up crumbs and/or drinks that might spill.
 - Ensure that food and wrappers disposed of in your office trash are emptied nightly.
 - Put liquids down sink drains before disposing of cups.
 - Avoid over-watering plants. Make sure watering containers are sealed.
 - Do not keep plants that produce seeds or fruit.
 - When you recycle, rinse all cans and bottles and shake out excess water prior to placing them in designated receptacles.
 - Keep your work area neat and organized.

- 2. Never use or bring pesticides to the workplace or attempt to treat pests or use pesticides yourself.**

- 3. Call General Services at 681-4703 immediately if you feel there is a pest problem.**

The General Services Department will identify the nature and the source of the pest problem and select the proper treatment. We will ensure that only the safest methods are used and that all affected parties are notified in advance. If required, we will bring in contracted professional pest control providers for support. A wide range of cultural, physical, mechanical or biological treatments will be considered. Only the **least-toxic** chemical pesticides will be used as a last resort in which case a notice will be posted 24 hours prior to the treatment.

Attachment C

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.

