SANTA BARBARA COUNTY
BOARD AGENDA LETTER

Clerk of the Board of Supervisors
105 E. Anapamu Street, Suite 407
Santa Barbara, CA 93101
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Agenda Number:	
Prepared on:	04/13/04
Department Name:	General Services
Department No.:	063
Agenda Date:	5/25/04
Placement:	Departmental
Estimate Time:	45 Minutes
Continued Item:	NO
If Yes, date from:	

TO:	Board of Supervisors
FROM:	Ronald S. Cortez, Director, General Services Phillip 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

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Recommendation(s):

That the Board of Supervisors:

A. Accept the Green Team's April 2003 - April 2004 Annual Update; and

B. Accept the Grounds Management Committee 2003 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. In 2003, the Strategy was updated to include new tasks to be undertaken by the County. 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 2003 – 2004 Annual Update (Attachment A) and IPM Strategy 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 are 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 five 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

In 1999, the County Green Team began expanding the County's recycling program to include commingled recycling in facilities where commingled service was available.

In the last year, eleven different County facilities were added to the County's commingled recycling program. The Solid Waste and Utilities Division worked with each separate facility to set up commingled recycling service with appropriate waste haulers. The Division purchased and supplied each facility with commingled recycling carts and boxes and then provided instruction to employees on how to participate in the program. The eleven County facilities that were added to the commingled recycling program include the following locations:

Fire Department Administration	4400 Cathedral Oaks Road	Santa Barbara
Fire Department, Station 19	4410 Cathedral Oaks Road	Santa Barbara
Fire Department, Station 21	3339 Skyway/Terminal Drive	Santa Maria
Fire Department, Station 23	5003 Depot Road	Santa Maria
Fire Department, Station 32	906 Airport Road	Santa Ynez
Fire Department, Station 51	749 Burton Mesa Road	Lompoc
Social Services	1100 West Laurel	Lompoc
District Attorney's Office	312-D Cook Street, Building D	Santa Maria
Alcohol Drugs & Mental Health	500 West Foster Road	Santa Maria
SB County Education Office	4400 Cathedral Oaks Road	Santa Barbara
Air Pollution Control District	260 N. San Antonio Creek Road	Santa Barbara

In addition, the Green Team is continuing its analysis of the trash and recycling service levels at many County facilities in order to make sure that the service levels are both adequate and cost effective.

At this time, seventy-one percent of all County facilities (150 buildings) have commingled recycling service. There are still 43 buildings that need service, however in many cases commingled recycling service is difficult to implement due to limited access and leasing situations. The Solid Waste and Utilities Division will continue to coordinate the effort necessary to implement the program at the remaining facilities.

Next year, 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 (12 volt, 6 volt, and "D" sized batteries and smaller) including alkaline, nickel-cadmium, and lithium batteries from our landfills.

County staff is encouraged to make use of the centralized collection of used batteries to facilitate proper disposal. Any County employee can send the old batteries through the internal brown mail where the mailroom sorts them and places them in specific categories. These then are taken to the CEC or Safety Clean on a regular basis. Over the past twelve months a total of 2,007 lbs. of batteries have been collected and diverted from our landfills in this manner.

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: Three large-scale Air Conditioning/Heating (HVAC) retrofits were considered for implementation this year. Two of these projects have been delayed due to funding issues but are planned for the future. However, the project retrofitting the main jail was funded and is going forward. The total cost of the project is expected to be $297,000 and it should be complete by July 2004.

Trash Compactor Installed at Jail: A new trash compactor was installed at the County Jail. The installation reduced the number of BFI trash truck trips from six to one per week. Furthermore, the compactor uses vegetable oil instead of hydraulic fluid in the hydraulic components. This substitution avoids the hazardous materials risk associated with hydraulic fluid.

Employee Awareness: The Green Team has continued to promote efficient use of energy through cost effective employee and public education measures, which help minimize the impact of increasing energy costs for the County. The Green Team sent out an energy use reminder in June 2003 to encourage energy efficiency through the hot summer months. In addition, the Energy Conservation "Advocates", representing each department and each facility met in June 2003 for training and information sharing. An Energy Tip poster was also completed and distributed to the Advocates in July 2003.

Energy use in existing County facilities increased less than 1%. However, new buildings were brought on line this year which caused overall energy use to grow.

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 implementation. Please see Attachment B for the fiscal year 2003/2004 updates.

Hybrid Vehicles

The County's Motor Pool fleet now has three Toyota Prius hybrid cars and 10 Honda Civic hybrids; including four in the motor pools at the downtown Santa Barbara Administration Building and the Calle Real Center in Goleta, plus three at the Betteravia Government Center in Santa Maria and two owned by Public Works Santa Barbara office. The ten Honda Civic hybrids were purchased with grant funds through the Santa Barbara County Association of Governments.

The downtown Santa Barbara Administration Building motor pool also has a Ford Think electric vehicle available for use by all employees and twelve additional electric vehicles through the GM Electric Vehicle Program that are used by General Services, Public Works, the Sheriff's Department and the Parks Department. The electric vehicles are great for short downtown commutes and is approved to operate on public roadways where the speed limit is less than 35 MPH. With twenty-six Saturn compacts, ten Honda Civic hybrids, three Toyota Prius hybrids and thirteen electric vehicles, the Santa Barbara County Vehicle Operations is becoming cleaner and more fuel-efficient.

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. At that time, the Green Team submitted a grant proposal to the US Bureau of Reclamation (USBR) to provide funding for this project. In July 2003, the Green Team was notified that the USBR did fund the proposal. The Green Team then began plans for the project, including determining which facilities would receive the waterless urinals, installing a meter on the urinals on the first floor of the Administration Building to determine water usage prior to installation of the waterless urinals, and holding a demonstration of the maintenance of the urinals with Facilities and Parks Maintenance staff in September of 2003. The water meter data indicates that the tested urinals use approximately 238 gallons per month apiece.

The Green Team also worked with the Planning and Development Department's Building and Safety Division to establish a protocol for the use of waterless urinals within the county. In April

2004, the Water Agency and the Building and Safety Division finalized the protocol for installations of these fixtures. The Green Team is now determining the best brand of waterless urinal to purchase and install. Installations should be complete in Summer 2004.

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 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 2003 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) and is available in PDF form on the Green Team website (http://www.countyofsb.org/GreenTeam.htm).

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. In addition, the Grounds Management Committee has considered language for a 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 development of the GMC has also facilitated the sharing of equipment and funding used in IPM techniques. Recently, members of the GMC attended a demonstration of the Weed Seeker, as described below in the Transportation Division update.

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

IPM Strategy Activities

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, 2003 through February 29, 2004.

The Santa Barbara County Park Department (Parks) contracts for Pest Control Advisor (PCA) services with a local vendor. Our PCA does not provide us with pest control materials or treatment services. He is selected for his training and experience in Integrated Pest Management (IPM) techniques as well as his knowledge of chemical pest control methods. His job is to provide Parks with recommendations for dealing with specific pest problems at our facilities.

Parks participates 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 sets up Park's annual spring training in IPM and chemical pest control.

Emerald Terrace and Stow Canyon, Goleta City parks maintained by Parks, are operated and maintained as IPM pilot sites. These pilots were established in March 2000. IPM and organic methods are used as the maintenance standard at both sites. These 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. Weed control is done with the department's Aquacide unit, which is also used at several other parks and open spaces.

Pesticides are not used at the following parks:

- Lookout Park, Summerland
- Arroyo Burro Park, Santa Barbara
- Santa Barbara County Courthouse Sunken Garden
- In the unincorporated open space areas of the 2nd Supervisorial District
- Woof Pack Park, Santa Maria
- Technical Services Demonstration Garden, Santa Maria

In addition, herbicides are not used:

- Within 50 feet of playgrounds
- On lawn areas
- Around picnic tables

Regarding pesticide use elsewhere, when necessary, Parks treats botanical specimen plants and trees to protect their health and control exotic pests that attack them. We also use pesticides to control disease carrying vectors like rats, mice, ground squirrels, and mosquitoes**. Occasionally, pesticides are used to control dangerous insects such as yellow jackets and Africanized bees. The material of first choice in all cases is the least toxic material currently available to us.

Using IPM methods of landscape weed control and maintenance is more expensive than herbicide control because it is more labor intensive. Once control is gained, cost may be reduced by ongoing maintenance and the application of weed barriers, mulches, etc.

The following table reports the average cost per square foot for the various weed control methods available.

Weed Control Method	Avg. Cost per square foot.	Notes
Pesticide (RoundUp Pro)	Cost of 2 applications annually is $0.01/ sqr ft. or $450/ac.	This is the most cost efficient weed control method of the group listed. You usually spray twice a year.
Aquacide Unit (Hot Water)	Cost of 2 applications annually is $0.13 / sqr ft. or $11,252/ac.	This method takes about 5 times as long as weed spray but its use is more flexible regarding environmental restrictions & less toxic. It must be done at least twice a year.
Hand Weeding (Hoe, etc.)	Cost to weed 4 times annually is $0.35 / sqr ft. or $90,024/ac.	This method is 10 times slower than spraying and 2 times slower than hot water applications. No toxicity issues. Might be done 4 times a year.
Weeding (Mechanized Tools)	Cost to weed 4 times annually is $0.10 / sqr ft. or $1,059/ac.	1.2 times slower than spraying. No toxicity issues. However, this operation must be performed 4 times a year.

In addition, Parks is a member of the Regional IPM Coalition. This group provides an opportunity for agency representatives to share IPM information, techniques, and innovations, and to discuss emerging issues and problems, and seek least toxic solutions to pest problems. Members are from City and County Government, local colleges, elementary and high schools, special districts, state agencies, community groups, manufacturers, and interested citizens.

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

The following table reports Park's pesticide use between January 1, 2003 and December 31, 2003 and compares it with the prior years usage. The products listed were used at various county parks, open spaces, and county grounds.

SANTA BARBARA COUNTY PARK DEPARTMENT ANNUAL PESTICIDE USE SUMMARY*				
Pesticide (Name/type)	**Amount Used 2003**	**Amount Used 2002**	**Applied by County or contractor**	**Targeted for phase-out**
Roundup PRO (Glyphosate)	11.68 gal[2]	28.8 gal[1]	County Park Staff (Weed Control Post Emergent)	No
Fire Power (Glyphosate & Oxyflurofen)	9.2 gal	0.0 gal	County Park Staff (Weed Control Post Emergent)	Yes (2004)
Surflan	0.3 gal	2.8 gal	County Park Staff (Weed Control Pre-Emergent)	Yes (2004)
WILCO Gopher Getter & Type II Baits	78.5 lbs.	161.8 lbs.	BOTH – Parks, Open Spaces, & County Grounds	Wilco Gopher Getter is no longer used.
WILCO Squirrel Bait	21 lbs.	103.9 lbs.	County Park Staff Ground Squirrel Control	No
Rat Baits**	14 lbs.	0.0 lbs.	Both Rat Control	No
PESTCON** Systems Fumitoxin	3.75 lbs.	0.0 lbs.	BOTH To Control Ground Squirrel & Fleas Carried.	Special Use Only

[1] This amount includes Roundup that was used on County Park and City of Goleta Parcels.
[2] This was used only in County Park areas.

* It should be noted that the quantities of pesticides used are a reflection of several variables. For example, when resources and funding are available we choose to reduce herbicide and pesticide applications by using weed control methods that cost more in time and labor such as flame torch units, hot water applicators, ceramic infra-weeders, mechanical weeders & mowers, and hand tools. Weather always plays a role in the quantity of pesticides used. For example, a dry winter results in less weed growth and shorter weed-growing conditions in late winter and early spring. Weather conditions also affect the size of our gopher population. A dry winter drives them into our irrigated lawn and shrub areas. It has also been observed that dry winters probably contribute to a higher survival rate among the gopher's litters.

Earthworm castings were used to control giant white flies in plants at the Santa Barbara County Courthouse and other county grounds locations. The castings were mixed 1:1 with top dressing and applied in 2" thick layers under plants susceptible to giant white fly attack, such as giant birds of paradise. This environmentally friendly practice has resulted in control of this pest at some Santa Barbara City Park locations. Other than this treatment, there is currently no known control for this pest.

Staff continues to pre-notify park users of planned pesticide use by posting signs before and after their application. The English/Spanish notices are placed on site 48 hours before and removed 48 hours after each application.

Parks uses several non-chemical weed control methods routinely:

- Staff placed approximately 400 cubic yards of wood chips and mulch to help smother weeds in shrub beds. The materials come from County Solid Waste's recycling program and local tree service companies.

- Many acres of weeds were mowed as many as four times to prevent them from going to seed. They were mowed until the weeds dried up and quit growing. The mowed vegetation was left on the ground.

- The department's Smithco Aquacide Environmental Weed Control System was used for weed control. The super heated water (up to 280° F+) it produces was applied to weeds to destroy their cellular structure, killing them. This unit provides us with a non-toxic weed control method that doesn't require the operator to have State certification. Breathing protection or protective clothing are 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 and does not endanger people, pets, and wildlife in the application area. We use it to create mowing strips along roadways, fence lines, walkways, curbs, etc. Pre-notification postings are not required when using this unit.

  The Aquacide system contributes to cost reduction by reducing the amount of herbicide purchased for perimeter weed control, but it is more labor expensive to use. But its real value lies in the lack of toxic impact its use has on the operator, the park 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 heat up to 2000 °F, which, when applied briefly to a growing weed, causes the plant's cells to burst killing it. The treatment works by disrupting the weeds cellular activity. The unit can be safely used in playground sand, decomposed granite paths and pads, cracks in pavement, roads, sidewalks, etc.

- Ceramic Infra-Weeder – The unit consists of a ceramic plate that is super heated by a LPG flame. It kills by bursting the weeds cells with the intense heat generated. The application rate takes at least twice as long as spraying herbicide. The results obtained using the Infra-Weeder are comparable to those of 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, etc. However, caution must be used to prevent fires.

- Weed Fabric & Mulch – Staff continues to install weed fabric as time and funding permit. This application offers reliable weed control in smaller, confined areas that receive little traffic or public use.

- Rototilling, & Mowing – Is an effective weed control method and will continue to be used where applicable. However, the scarcity of good, clean smelling mulch materials

continues to be a problem. The mulch available at the transfer station has an offensive sour odor and cannot be used close to neighbors.

Pilot Project 2003/2004 Results

Parks had hoped to participate with the Community Environmental Council to develop a pesticide use "zone" information system at one or more of our parks. The system entails the installation of information posting locations with color-coded mapping that corresponds to the park areas that receive chemical treatment, if any. The treated and untreated areas would be marked with colored field markers that match the posted information. The goal of the pilot project is to provide park users with the information they need to decide where they want to recreate in a park. Budgetary issues prevented us from pursuing this project during 2003-2004, but we hope to pilot it this coming fiscal year.

New Pilot Projects for 2004/2005

Parks will be trying a new product called Rode-trol to control rats and ground squirrels. The active ingredient in this bait product is corn oil concentrate. The inert ingredients in it are wheat flour, molasses, and corncobs. The product is said to be "nearly non-toxic." We plan to try the bait at several locations under controlled conditions. One of the drawbacks of this material is that it doesn't eliminate the disease carrying fleas, which can migrate to another host upon the rat or squirrels death.

Parks will continue to look for effective, clean, safe, least-toxic methods to deal with our recurring pest management problems, and we will implement successful methods that result from pilot projects as budget and staffing resources allow.

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

IPM Strategy Activities

In response to the Board of Supervisors adopted **Integrated Pest Management Strategy** the following summarizes the Flood Control Districts activities for the period, March 2003 to April 2004.

Staff participated in quarterly meetings of the Grounds Management Committee (GMC), and retained the same staff member as Pest Management Coordinator (PMC) to manage the departments IPM program. No new chemical controls or products were requested to be added to our use list. 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 further Integrated Pest Management training.

The District routinely posts notices, in English and Spanish, 24 hours before an application of herbicide 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).

Mulch - In the past year the District has used approximately 900 tons of wood chips and mulch in our weed control program. The Solid Waste and Utilities Division provides the wood chips and even delivered the material to the site (access road along Airport Channel in Santa Maria).

Mechanical – In place of herbicides, vegetation control has been augmented with mechanical mowing. The Flood Control District purchased a mower in November and have used it to mow over 270 acres of weeds along access ways this spring.

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 Flood Control Annual Pesticide Summary

The following table reports Flood Control's pesticide use between January 1, 2003 and December 31, 2003 and compares it with the prior year's usage.

Santa Barbara County Public Works Department/Flood Control District Annual Pesticide Use Summary					
	Amount Used 2001[2]	**Amount not to exceed in 2002[3]**	**Actual Use 2002**	**Amount not to exceed in 2003[4]**	**Actual Use 2003**
Glyphosate [1]	1233 gal.	986 gal.	452 gal.	789 gal.	256 gal.
Diuron	805 gals.	644 gals.	443 gals.	515 gals.	337 gals.
Telar	62 lbs.	50 lbs.	32 lbs.	40 lbs.	16 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 through 2002 and 2003 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.

In 2003, a new mower was delivered offering an alternative to chemical use, particularly on access roads, and large facilities such are the Santa Maria River Levee. This mower allows the mowing of flat access roads and slopes (see picture above)

Pilot Project 2003/2004 Results

One of the Flood Control District's pilot projects for 2003 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 in 2001 on an access area next to Sycamore Creek at Soledad Street, and an access road along a tributary to Devereux creek in 2003 staff expanded the use of mulch this year in an attempt to evaluate a problem noted in last years report. District staff applied mulch to some access roads in the Santa Maria area where the substrate is sandy. The problem identified at the Devereux site last year 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.

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.

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. The herbicide application on the Sycamore site costs 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 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.
Areas where mulch should work in the Santa Maria area have been found. Two areas have been mulched to evaluate the situation, 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. It has taken two winters to get enough growth of weeds to get to the point that vegetation control was required,

New Pilot Project for 2004/2005

District staff will continue to review 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.
In addition the District will continue to monitor usage and work with the Grounds Management Committee and attend IPM training as time and the training budget allow continuing to search for alternative methods of weed control.

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

IPM Strategy Activities

In response to the Board of Supervisors adopted **Integrated Pest Management Strategy** the following summarizes the Transportation Division's activities for the period, March 2003 to April 2004.

Staff participated in quarterly meetings of the Grounds Management Committee (GMC), and retained the same staff member as Pest Management Coordinator (PMC) to manage the departments IPM program. No new chemical controls or products were requested to be added to our use list.

In addition, the Transportation Division organized a demonstration of the herbicide applicator "Weed Seeker" on April 23, 2004. The Weed Seeker has sensors that use optics and computer circuitry to sense the presence of a weed. The Weed Seeker then sprays herbicides only on the weeds when the sensors "see" them and not on bare ground. This can eliminate the need for broadcast spraying. Weed Seeker claims the ability to reduce the use of pesticides by 60% to 90% compared to a continuous spray application.

Pilot Projects 2003/2004 Results

The 2003 Pilot Project for the Transportation Division was to consider alternative methods of weed controls. One of the methods that was considered was using chips from division tree trimming operations to line the edges of county off road bike trails. Lining an approximate three-foot wide strip along both sides of the path would reduce the number of applications of herbicides needed to keep weed over growth to a minimum. Due to the lack of wood chips from tree trimming this year, this project was not implemented. However, it will be implemented in the next fiscal year.

The Transportation Division also considered the purchase of a Weed Seeker herbicide sprayer (see description above). The Weed Seeker has a fairly high initial cost but should pay for itself in a relative short period of time, depending on spraying needs. However, due to budget constraints the purchase of this equipment has been postponed indefinitely.

Transportation Division Annual Pesticide Use Summary

The figures listed in the tables 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.

Santa Barbara County Public Works Department/Transportation Division											
Annual Pesticide Use Summary											
Pesticide Usage:		**1999**		**2000**		**2001**		**2002**		**2003**	
Product	**% Active Ingredient**	**Actual Usage - Pounds**	**Pounds of Active Ingredient**	**Actual Usage - Pounds**	**Pounds of Active Ingredient**	**Actual Usage - Pounds**	**Pounds of Active Ingredient**	**Actual Usage - Pounds**	**Pounds of Active Ingredient**	**Actual Usage - Pounds**	**Pounds of Active Ingredient**
Oust	75% Sulfometuron	28.44	21.3125	--	--	--	--	--	--	--	--
Karmex	80% Diuron	910	728	--	--	--	--	--	--	--	--
Surflan	4lbs.per gal. Oryzalin	122 gal.	30.5	--	--	--	--	--	--	--	--
Merit	.11% Imidacloprid	19.4375	0.125	--	--	--	--	4.4375	0.5	--	--
Round Up	4lbs. per gal. Glyphosate	158 gal.	39.5	171 gal.	42.75	116 gal.	29	65 gal.	16.25	191.8 gal.	47.94
Garlon*4	Triclopyr	--	--	0.5	0.075	2	0.31	0.6875	0.11	2.3 gal.	0.3375
Total pounds of Active Ingredients			**819.44**		**42.81**		**29.31**		**16.88**		**48.28**
Percent Reduction from 1999			--		**95%**		**96%**		**98%**		**94%**
Percent Reduction from Previous Year			--		**95%**		**68%**		**58%**		--
Percent Increase from Previous Year*			--		--		--		--		**286%**

*See explanation below.

The Santa Barbara County Department of Public Works, Transportation Division's usage of Pesticides has had a marked reduction in the past four years. Beginning in 2000 the Transportation Division began, in earnest, the use of alternative methods in vegetation abatement. Both mechanical means, and use of wood chips have been employed, rather than the use of chemicals.

During 1999 the Division used 819 pounds, 7 ounces of various chemicals to abate vegetation. (see table above). In 2000, this was reduced to 42 pounds, 13 ounces, followed in 2001 with 29 pounds, 5 ounces, and in 2002 use was reduced to 16 pounds, 14 ounces. The reduction in use is attributed to the change in application strategies. The Division rarely, if at all, applies pesticide to the approximately 660 acres of roadway shoulder on which vegetation abatement is required. Vegetation on these locations is now abated with the use of mowers and when needed through manual means.

When chemical means are applied to weed and vegetation control it occurs on the roadway pavement itself, prior to surface treatments. Weeds often begin to grow in the small cracks that occur in road pavement. It is necessary to remove these weeds prior to a surface treatment without further damaging the asphalt. In Fiscal Year 2001/2002 the Transportation Division treated approximately 115 lane miles and used 16 pounds 14 ounces of pesticide. In Fiscal Year 2002/2003, 203 lanes miles of County roads were treated and 47 pounds, 20.4 ounces of pesticide was used.

The increased use between 2001/2002 and 2002/2003 is not only because of the increased surface treatment, but also more vegetation and more cracks as a result of location and weather.

The significant reduction between 1999, and the following years indicates that the Transportation Division of Public Works is vitally interested in reducing the use of pesticides whenever possible.

New Pilot Projects for 2004/2005

As mentioned above, the 2003 Pilot Project for the Transportation Division was to consider alternative methods of weed controls. Due to the lack of wood chips from tree trimming this year, this project was not implemented. However, this project will be implemented in the next fiscal year and will again serve as our pilot project under the IPM Strategy.

Department: Public Works – Solid Waste Operations
Contact Name: Mark Tautrim
Contact Extension: x5626
IPM Coordinator: Mark Tautrim

IPM Strategy Activities

This is the first year that Solid Waste has been involved in the IPM program primarily because the Division has used little to no pesticides or herbicides in the past. However, in 2003 ground squirrels became a problem at the Cuyama Valley transfer stations and the regulatory inspector requested that the Division deal with the problem. Although steps were taken to secure the dumpsters to prevent infestation, ground squirrel activity only subsided a fraction. Because of the possible public health issue, the Division applied for and received a permit from the Agricultural Commissioner's Office to apply PCQ for squirrel control. The total use for the Division is described in the table below.

The Division has selected Mark Tautrim to serve on the Grounds Management Committee (GMC) and as the IPM Coordinator. He will attend the quarterly meetings of the GMC and will conduct the tasks necessary to implement the IPM Strategy within the Solid Waste and Utilities Division.

Solid Waste and Utilities Division Annual Pesticide Use Summary

The Division used 440.2 total pounds of PCQ at the two transfer stations in calendar year 2003 as noted in the table below. The cost of the PCQ for 2003 was about $770.00. No labor cost was calculated; filling bait stations was done as part of regular duties at the transfer stations.

The only other pesticide/herbicide that Solid Waste Operations used was Round-up, and only once. A total of 16 ounces was used in June, 2003, and that was applied to weeds along the road to the South Coast Recycling and Transfer Station.

SOLID WASTE OPERATIONS 2003 PESTICIDE USE SUMMARY				
PCQ Month of Use	Report Date	Ventucopa T.S. (lbs)	New Cuyama T.S. (lbs.)	
January	01/07/03	12	12	
February	02/12/03	19	15	
February	02/26/03	11.8	13.4	
March	03/19/03	5	15	
May	05/15/03	20	15	
June	06/05/03	20	15	
July	09/12/03	60	45	
August	09/13/03	40	30	
November	12/11/03	51.5	14	
December	01/07/04	26.5	0	
Total PCQ Used per Site		265.8 lbs.	174.4 lbs.	
Total PCQ Used				440.2 lbs.

IPM Programs

The Solid Waste and Utilities Division produces thousands of tons of mulch each year as a product of grinding curbside greenwaste and green vegetation that is brought to our transfer stations and landfill. The mulch is used by other Public Works divisions along with other departments for weed abatement and amending soil. The product has also become a very important tool to many agricultural enterprises as its use increases water retention and reduces the growth of weeds. The use of the County's mulch has no doubt decreased the use of herbicides throughout our county and other counties.

New Pilot Program for 2004/2005

The Division discontinued the use of PCQ as of December 31, 2003, and if the need to eradicate rodents arises in the future, the Division will be trying a new, much safer product, Rode-trol (described in Parks Department's "New Pilot Projects for 2004/2005").

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

IPM Strategy Activities

In response to the Board of Supervisors adopted **Integrated Pest Management Strategy** the following summarizes the General Services Department's activities for the period, March 2003 to April 2004.

Staff participated in quarterly meetings of the Grounds Management Committee (GMC), and retained the same staff member as Pest Management Coordinator (PMC) to manage the departments IPM program. No new chemical controls or products were requested to be added to our use list.

The General Services Department contracts with Western Exterminator Services and Hydrex to provide pest services for County Facilities. Both are licensed, registered pest control companies that are aware and familiar with the County's IPM policy.

Pilot Project 2003/2004 Description

During the year 2003, the General Services Department continued the pilot project, which compared the total number of work orders created for pest related problems in 2003, to the total number created in 2002 and 2001. The Santa Barbara Courthouse was the selected project building. The IPM program for buildings focuses on preventing County from staff using and storing pesticides on County property. Instead, staff is directed to contact General Services for all pest related problems. An annual reminder of this pesticide policy is sent via e-mail to all County employees. (See attachment B1). In addition, General Services began tracking the amount of pesticides used under all contracts for pest control services within the county.

Although the IPM policy is in effect for all County buildings, the project building was the Santa Barbara Courthouse. The objective of the project was to determine the effectiveness of the IPM policy. In the year 2003, there were five pest related work orders compared to eight in the year 2002 and three in 2001. Due to the overall low number of work orders it is difficult to make an accurate determination on how effective the policy is. However, based on the small number of work orders created, it is safe to conclude that there is not a pest related problem in the Courthouse. Furthermore, facilities staff is not aware of pesticides being stored on County property/offices.

According to our records, pesticide use by our service providers has been reduced overall. However, due to the small amount of data currently available, it is impossible to determine if this is a trend that will continue in the future. Therefore, staff will continue to track this data.

The General Services Facilities division, continues to implement the IPM policy and resolve any pest related issues in any County buildings as soon as possible. We continue to make use of professional vendors and methods to maintain a healthy, safe, work environment.

Santa Barbara County General Services Department Annual Pesticide Use Summary

The General Services Department contracts with Western and Hydrex to provide pest services for County Facilities. The following table provides an overview of pesticide use for 2002 and 2003.

Santa Barbara County General Services Department Annual Pesticide Use Summary				
Western - South County				
Chemical	UM	2002	2003	Difference
Borid	lb	1.12	1.59	0.47
Maki Block	lb	124.75	110.16	-14.59
Tempo 20WP	gr	50	0	-50
Terro Ant Killer II	oz	7	4.4	-2.6
Dragnet SFR	oz	97.13	70.34	-26.79
Suspend SC	oz	8.5	0	-8.5
Talstar CA Granular	lb	186	71.21	-114.79
Talstar Lawn & Tree	oz	24.06	20.03	-4.03
Advance Ant Bait	oz	10	0	-10
Glue Board	ea	51	45	-6
Western Rat Trap	ea	32	52	20
Western MiceTrap	ea	0	26	26
Bell Rat Station	ea	10	0	-10
Tin Cat	ea	2	0	-2
Bell LP Rat Station	ea	37	9	-28
PCQ	lb	44	0	-44
Talon G	lb	7	0	-7
Cy-Kick	oz	111	0.25	-110.75
Delta Dust	oz	16	0	-16
Termidor SC	oz	0	3.01	3.01
Cynoff EC	oz	0	4.25	4.25
CB-80 Insecticide	oz	0	9	9
Maxforce insect bait	oz	0	16	16
PreEmpt cockroach	gr	0	3	3
***Negative numbers indicate pesticides with decreased use in 2003**				

Santa Barbara County General Services Department Annual Pesticide Use Summary				
Hydrex - North County				
Chemical	UM	2002	2003	Difference
PCQ	lb	44	0	-44
Talon G	lb	7	0	-7
Talstar Granuals	lb	116.5	180.5	64
Cy-Kick	oz	111	217	106
Tempo WP	oz	48	15	-33
Delta Dust	oz	16	18	2
Suspend SC	oz	8	0	-8
PT-565	oz	0	12	12
Maxforce insect bait	oz	0	4	4
Dragnet SFR	oz	0	34	34
Maki Block	lb	0	60.5	60.5
Demand CS	oz	0	80	80
***Negative numbers indicate pesticides with decreased use in 2003**				

New Pilot Project for 2004/2005

General Service's staff will continue to monitor the number of requests for pest services in the Courthouse, to track pesticide use through pest service providers, and to provide IPM updates to County staff in an effort to achieve the goals of the IPM Strategy adopted by the Board in 2000.

Attachment B1: Pest Services Request Policy

Date: **March 25, 2004**
To: **All County Employees**
From: **Santa Barbara County Green Team**
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 are in a sealed trash can.
   - 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. **Do not use or bring (or store) pesticides to the workplace or attempt to treat pests or use pesticides yourself.**

3. **Call General Services at 681-4703 immediately at first signs of 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.