

Contra Costa County Integrated Pest Management Advisory Committee

2010 Annual IPM Program Status Report

to the

Transportation, Water, and Infrastructure Committee of the Contra Costa Board of Supervisors

For the previous seven years, an informal IPM Task Force met to coordinate implementation of the IPM Policy that was adopted by the Board of Supervisors in November 2002 and made annual status reports to the Transportation, Water, and Infrastructure Committee of the Board of Supervisors. This report is the first annual status report from the Integrated Pest Management (IPM) Advisory Committee. This formal advisory committee was created by the Board of Supervisors in November, 2009.

BACKGROUND

The purpose of this new IPM Advisory Committee is to:

1. Protect and enhance public health, County resources, and the environment;
2. Minimize risks and maximize benefits to the general public, staff, and the environment as a result of pest control activities conducted by County staff and contractors;
3. Promote a coordinated County-wide effort to implement IPM in the County in a manner that is consistent with the Board-adopted IPM Policy;
4. Serve as a resource to help the Agriculture, General Services, and Public Works Departments (the Departments) and the Board of Supervisors review and improve existing pest management programs and the processes for making pest management decisions;
5. Make policy recommendations upon assessment of current pest issues and evaluation of possible IPM solutions; and
6. Provide a forum for communication and information exchange among members in an effort to identify, encourage, and stimulate the use of best or promising pest management practices.

The IPM Advisory Committee currently has 11 members, seven voting members and four non-voting members. The seven voting members are: one representative from Contra Costa Health Services, one from the County Storm Water Program, one from the County Public and Environmental Health Advisory Board, one from the County Fish and Wildlife Committee and three at-large members of the public. The four non-voting members are one representative each from the County Departments of General Services, Public Works and Agriculture, and one representative from the County's pest management contractor.

The IPM Advisory Committee set the following priorities for themselves for 2010:

- A. Screen applicants for the three public seats on the Committee and make recommendations for filling the seats to the Board of Supervisors.
- B. Develop a recommendation to the Board of Supervisors concerning the need for developing an IPM Ordinance.
- C. Assist the Departments and the IPM Coordinator in the comprehensive review of pesticides used in the County and the establishment of pesticide use criteria
- D. Oversee implementation of the pesticide use posting policy.
- E. Provide input to the Departments on the development of their written IPM plans.
- F. Provide guidance to the Departments as they work on challenges that arise.

2010 ACCOMPLISHMENTS OF THE IPM ADVISORY COMMITTEE AND THE IPM COORDINATOR

The IPM Advisory Committee (the Committee) held six regular meetings and three special meetings during 2010 to address their priorities. During 2010 the IPM Committee and the IPM Coordinator accomplished the following:

- Priority A: The IPM Coordinator and the Committee advertised for, screened, and interviewed candidates for three public at-large seats, and made recommendations to fill those seats to the Board of Supervisors.
- Priority B: The Committee heard presentations on the IPM program regulatory framework for Alameda and Santa Clara Counties and reviewed an Opinion authored by County Counsel, but deferred making a recommendation to the Board of Supervisors concerning the need for developing an IPM Ordinance until next year so any new Committee members could participate in the development of the recommendation.
- Priority C: The IPM Coordinator and the Departments met regularly during the first half of the year to develop a screening process and screening criteria for pesticides used in County operations. The IPM Coordinator and the Departments will resume this work in 2011. This work is in preparation for bringing a screening framework before the Committee.
- Priority D and Purpose numbers 1, 2, 3, 4: The IPM Coordinator worked with the Departments to implement the pesticide use posting policy and to design appropriate signs. The Committee reviewed the implementation of the pesticide use posting policy and found it to be satisfactory.
- Priority E and Purpose numbers 1, 2, 3, 4: The IPM Coordinator worked with the Departments and the County's pest management contractor to develop their written IPM plans. The Committee reviewed draft IPM plans and provided input to the Departments. After reviewing the revised plans, the Committee found them acceptable as written and has made recommendations to the Departments for future refinements to the plans. The Committee appreciates the great effort and thought that the Departments put into their plans and looks forward to continuing to work with the Departments on their IPM programs.
- Priority F and Purpose numbers 1, 2, 3, 4, 6: The IPM Coordinator provided regular reports to the Committee, and the Committee heard regular reports from the Departments on the implementation of their IPM programs. The Committee provided feedback on items raised in those presentations including the following:
 - a goat-grazing study being conducted by the Public Works Department,
 - a ground-squirrel control program being considered by the Public Works Department, and
 - a turf management problem being addressed by the General Services Department.
- The IPM Coordinator organized a Bed Bug Task Force to help the County prepare for the inevitable increase in bed bug infestations. The 15-member Task Force has been meeting monthly since April. In October, the Task Force partnered with the Monument Community Partnership to organize a community meeting to provide accurate bed bug information to citizens in the Concord area. The Task Force plans to organize similar meetings in other parts of the County.

Additional Committee Seats

The Committee responded to a request from the Board of Supervisor's Internal Operations Committee to make a recommendation concerning additional seats that could be added to the Committee to fill gaps in representation. The Committee recommended to the Internal Operations Committee that an Environmental Organization seat and an Environmental Education Organization seat be added to the Committee. That recommendation was accepted by the Internal Operations committee. At their November 23, 2010 meeting, the Board of Supervisors approved the addition of one "Type 3" at-large seat for an environmental organization with either 501(c)(3) or 501(c)(4) status.

2010 DEPARTMENT IPM PROGRAM HIGHLIGHTS AND CHALLENGES

Agriculture Department

IPM Program Highlights

- All historically treated noxious weed sites surveyed and treated
Significant progress was made in the Department's eradication and control efforts. The program involved over 2,800 hours of direct field time by staff.
- No new Japanese dodder (*Cuscuta japonica*) sites found this year
Japanese dodder is a very aggressive parasitic plant that has the potential to severely alter the composition and function of riparian areas. It also affects ornamental plantings and agricultural crops. It is native to Southeast Asia and was first discovered in the county in spring of 2004. Nineteen of the 46 historically infested sites in the county have been free of Japanese dodder for three or more years, which meets the criteria for eradication on these properties. Only two properties were found to have very small amounts of residual Japanese dodder this year. All removal by the Department is accomplished without the use of pesticides by using only hand tools.
- Red sesbania (*Sesbania punicea*) removal continued
This was the fifth year of red sesbania removal at the primary infestation site of Kirker Creek, Dow Wetlands. This small woody tree has a high potential for environmental damage by displacing native plants and wildlife in riparian areas. It is an exotic invasive noxious weed that is native to South America. A few individual red sesbania plants were removed in Grayson Creek and lower Walnut Creek by County Public Works. The Agriculture Department discovered three new infested residential properties this year. After going through an official abatement process, the red sesbania was removed from these properties. All removal of red sesbania is performed mechanically or by hand-pulling. A total of 1,899 plants were removed this year compared to 2,059 in 2009, 492 in 2008, 833 in 2007 and 878 in 2006. All but five of the plants removed this year were seedlings that germinated from the existing seed bank (seeds that remain on, or in the soil).
- Kangaroo thorn (*Acacia paradoxa*) removal continued
The County has one site infested with kangaroo thorn. The removal of the existing infestation in 2005 involved 52 hours of staff time. At that time the infestation covered a little less than one net acre. Each year the Department removes by hand-pulling all new seedlings sprouting from the old seed bank. Total staff time to accomplish removal this year was 1.0 hour.
- Departmental IPM plan developed
The Department developed a detailed and extensive IPM plan that was approved by the IPM Advisory Committee.
- Work on pesticide screening process continued
The Deputy Agricultural Commissioner met regularly with the Public Works Vegetation Manager and the IPM Coordinator to work on developing a screening process for pesticides used in the County.
- Critical infrastructure protection continued
The Department continues to protect critical infrastructure including levees, earthen dams, railroad beds and roadways from damage by ground squirrels

Agriculture Department Challenges

- Raptor perches and ground squirrels
Studies continue on the effectiveness of 20 raptor perches that were installed in three separate areas last year under a Fish & Wildlife Committee grant. This is an effort intended to test whether attracting raptors to a site can reduce or maintain ground squirrels at an acceptable population level through natural predation without the use of conventional treated baits. Unfortunately, our study so far has failed to show that the perches significantly attract birds of prey, such as red-tail hawks, that are capable of taking ground squirrels. Only once was a red-tail hawk pair observed using a perch.

There has been no evidence of any ground squirrel take at the base of any perch. The perches are used by small raptors including kestrels and owls. There was significant evidence of predation on small rodents, including mice, and on Jerusalem crickets. On a few occasions territorial kestrels were observed harassing red-tail hawks and chasing them away from the area of the perches.

The Department intends to continue to monitor the perches

- South American Spongeplant (*Limnobiium laevigatum*)
South American spongeplant was discovered for the first time in the Delta this summer. Small numbers of plants were found near Frank's Tract in Contra Costa County and other populations were found in the southern Sacramento County portion of the Delta. This pest is a CDFA "A" rated noxious aquatic weed that has a greater potential for harm to agriculture and recreation than water hyacinth. The Department is working with CDFA, the Department of Boating and Waterways, and the Agricultural Commissioner of Sacramento County in an attempt to find a viable solution to stop the spread and to eradicate this pest.

General Services Department

IPM Program Highlights

- Pestec, the new structural IPM contractor, provided excellent service
The Department hired Pestec IPM Providers in December 2009 for the County's structural pest management. They have been doing an outstanding job, and their customer service is excellent. They are sensitive to GSD's needs and to GSD's customers' needs.
- Pestec educating County staff on IPM principles
Pestec has initiated a dialogue with County staff to explain IPM and to explain the reasons behind Pestec's and the County's pest management principles.
- Correcting structural deficiencies in buildings continued
The Department has been as attentive as limited budgets allow to correcting all the structural deficiencies that Pestec has reported. Staff has been installing doorsweeps, sealing cracks, screening windows, sealing pipe entries, and screening off areas under steps going to buildings.
- Structural IPM program pesticide use remains low
In FY 09/10, 17 lbs. of active ingredient were used in the approximately 2.75 million sq. ft. of County structures. The previous fiscal year the amount was 23 lbs.
- Additional calls for pest control services remain low
In 2008, the Facilities Division received 161 additional calls for service for various pest problems. These are calls for service that are outside the regularly scheduled monitoring service of the pest control contractor. As the number of these calls goes down, we can assume that the conditions conducive to pest invasion are diminishing in County buildings. In 2009, the Division received 86 calls for additional service, or about one half the calls received the year before. Preliminary assessment of data for 2010 shows that the number of calls continues to fall.
- Kevin Lachapelle named Grounds Division Manager
In March, Kevin Lachapelle added management of the Grounds Division to his responsibilities at GSD. He is doing an excellent job and has been working hard to improve communication with the Grounds Crew and to improve morale. He is continually exploring innovative solutions to long-standing maintenance and pest management problems.

- Two Grounds Division staff acquired Department of Pesticide Regulation Licenses
Kevin LaChappelle and staff member Jerry Tourte have passed the exams for a Qualified Applicator's Certificate and a Qualified Applicator's License, respectively, from the Department of Pesticide Regulation. This licensing requires continuing education hours.
- Grounds Division staff training improved
For many years the Grounds Division has been financially unable to provide any training other than the State-mandated pesticide use and safety training for the Grounds Crew. In the past the Grounds Manager provided this training. This year Kevin Lachapelle hired a professional trainer, who also works for the State Department of Fish and Game, to bring a new perspective to the Crew.

The Department is very grateful to Nancy Stein of the County's unincorporated Watershed Program who provided funds for registration fees and labor hours for seven members of the Grounds Crew to attend the Bay Friendly Landscaping Conference in San Francisco on September 17.
- Grounds Division applied 550 cubic yards of mulch to prevent weed growth
The Grounds Division applied approximately 550 cubic yards of wood chips as mulch in order to reduce weed growth. The wood chips were donated from tree maintenance companies.
- Grounds' drastic reduction in pesticide use in 2010 may not be sustainable
In a serious and concerted effort to reduce pesticide use in Fiscal Year 09-10, the Grounds Division and its contractors used only 45.7 lbs. of active ingredient, an 81% reduction from the previous fiscal year, and a 95% reduction from FY 00/01. Unfortunately, the Division finds that this is unsustainable because of the lack of labor, time, and funding to perform hand and mechanical weed abatement or to institute weed prevention measures. Pesticide use is expected to increase in Fiscal Year 10-11.
- Departmental IPM plans developed
The Department completed its IPM Plan for the Grounds Division and worked with Pestec to complete their Structural IPM Plan. The Plans were accepted by the IPM Advisory Committee.

General Services Department Challenges

- Pest Exclusion in County Buildings
It is very important that all deficiencies flagged by the pest management contractor be addressed in order to reduce pest intrusion into County buildings. This reduces call-backs and saves the County considerable money. The reduction of staff in the Facilities Division has slowed the correction of these deficiencies. As staff visits sites to work on other projects, they will incorporate repairs to fix deficiencies reported by Pestec.
- Pest Exclusion in Leased Buildings
Reducing pest intrusions into leased buildings is more of a challenge since the responsibility often falls to the landlord.
- Bed Bugs in County Buildings
Bed bugs are particularly difficult and costly to control. The Concord homeless shelter has experienced two bed bug infestations this year. As bed bugs become more prevalent, other County buildings may be affected. Staff and budget cuts make putting prevention measures in place a challenge.
- Budgets and Staffing in the Grounds Division
The Grounds Division Manager and the IPM Coordinator finished a survey of sites under management to record landscaping, pests, maintenance activities and schedules, and pest management activities in a comprehensive document. This exercise revealed that 70% of County-owned or -leased buildings are under-funded and that 42% of the sites have less than or equal to 50% of the funding they need for the Grounds Crew to perform adequate (not superior) maintenance at the sites. In the Special Districts that the Grounds Division manages for the Public Works Department, 85% of the sites are under-funded and 66% of the sites have less than or equal to 50% of the necessary funding for adequate maintenance. Over the last several years the Grounds staff has been cut by 67% with no reduction in work load. The staff has

gone from 46 gardeners and 3 irrigation technicians along with summer hires to 15 gardeners and 1 irrigation technician.

With these difficult circumstances, the Grounds Crew does the best job they can and takes great pride in their work. It is, however, impossible to run an IPM program under these conditions. Landscape maintenance and care, the basis of an IPM program, can barely be accomplished, and pesticides must be used as a weeding tool because of such reduced funding. At present there is no funding to modify inappropriate landscapes to make them less time-consuming to maintain or to make them less weed-prone. Because of this chronic under-funding, County assets are deteriorating. If this is allowed to continue, these sites will eventually require even more funding to bring them back to a manageable condition.

Public Works Department

IPM Program Highlights

- Departmental goal exceeded for reduction in use of pesticides of concern
The Department exceeded its goal of reducing the use of pesticides of concern (“Bad Actors”) by at least 90% in FY 09/10 compared to FY 00/01. Actual reduction was 97.25%.
- Departmental IPM developed
The Department completed a detailed IPM Plan for Roads, Flood Control Facilities, and Real Property. The Plan was approved by the IPM Committee.
- A multi-year grazing study will begin next year
A Professional Services Contract was awarded to LSA Associates to conduct a multi-year study of grazing and chemical weed control on Walnut Creek.
- Pesticide application tracking will be enhanced
The Department purchased a computerized control system designed to help collect and track pesticide applications via GPS.
- Work on pesticide screening process continued
The Vegetation Manager met regularly with the Agriculture Department and the IPM Coordinator to work on a hazard screening process for all pesticides used by the Department.

Public Works Challenges

- Revenue Stream
Revenue from property taxes and the sale of fuel continues to lag behind the cost of maintaining our facilities. This is projected to remain a challenge in future years.
- Increased acreage under manual weed abatement
- Weather
The Department was unable to complete major weed abatement operations by our July 1 goal due to wet weather patterns late in the year and the increased area under manual vegetation management. We completed these operations over-budget and late (August 19th).

PESTICIDE USE BY THE COUNTY OF CONTRA COSTA

Starting in FY 00/01, the IPM Task Force annually reported pesticide use data to the Transportation, Water, and Infrastructure Committee for the three departments involved in pest management: Agriculture, General Services, and Public Works. The IPM Coordinator has continued this task. Since FY 00/01, pesticide use has been steadily decreasing. Table 1, below, compares figures for FY 00/01 with FY 09/10.

Table 1. Comparison of Pesticide Use in FY 00/01 and FY 09/10

Department	Total Lbs. of Active Ingredient used in		Reduction in Use
	FY 00/01	FY 09/10	
Public Works	16,569	8165	51%
Agriculture	1,413	695	51%
General Services-Grounds	927	46	95%
General Services-Facilities	FY 07/08 21	17	19%
Public Works Special Districts	FY 07/08 11	10	9%

Concern about “Bad Actor” Pesticides

There has been concern in the community and within the County about the use of “Bad Actor” pesticides by County departments. “Bad Actor” is a term coined by the Pesticide Action Network and Californians for Pesticide Reform to identify a “most toxic” set of pesticides. These pesticides are at least one of the following: known or probable carcinogens, reproductive or developmental toxicants, cholinesterase inhibitors, known groundwater contaminants, or pesticides with high acute toxicity.

The County’s use of these particular pesticides has decreased dramatically since FY 00/01 as shown in Table 2, below.

Table 2. Comparison of “Bad Actor” Pesticide Use in FY 00/01 and FY 09/10

Department	Total Lbs. of “Bad Actor” Active Ingredients used in		Reduction in Use
	FY 00/01	FY 09/10	
Public Works	5240	144	97%
Agriculture	133	3	98%
General Services-Grounds	649	0	100%

Fluctuations in Pesticide Use

It is important to note that pesticide use can increase and decrease depending on the pest population, the weather, the invasion of new and perhaps difficult to control pests, the addition of new pest management projects to a department’s workload, and cuts to budgets or staff that make it difficult or impossible to use alternate methods of control.

INTEGRATED PEST MANAGEMENT PRIORITIES FOR 2011

Agriculture Department Priorities for 2011:

- Continuing the County's highly effective Noxious Weed Program
Contra Costa's highly effective Noxious Weed Program has been in operation for 31 years. A major objective of the Agriculture Department is to continue to monitor and treat targeted noxious weeds on all historic sites before they set seed. Preventing seed set is the most important factor in reducing weed populations and in depleting existing seed banks. By doing this we can decrease the hours of labor needed and amounts of herbicides applied in successive years to a particular area. This also allows the Department to add previously untreated sites to the Noxious Weed Program and brings local eradication of the targeted weed species one year closer.
- Finding alternatives to the herbicide Telar®
The Department began trials on herbicide alternatives to Telar (chlorsulfuron) last year with limited success, especially on perennial pepperweed. We will monitor trials in the coming year to gather information on the efficacy of Milestone VM Plus® (aminopyralid plus triclopyr) on various noxious weeds.
- Continuing work on the pesticide screening process
The Department will work with the IPM Coordinator to screen all pesticides used by the Department.
- Continuing to attend IPM training and sharing the information with other Departments
The Agriculture Department will continue to have staff attend outside IPM seminars and training sessions given on a variety of pest management issues. The Department will develop a training database so that personnel who return from IPM seminars and workshops can store training and outreach materials in a way that will be easily accessible to other County staff members.
- Continuing to monitor the raptor perches
Over the next year, the Department will continue to monitor each of the twenty raptor perches located in open spaces within the Cities of Concord (one location) and Walnut Creek (two locations).
In fall 2009, staff used California Department of Food and Agriculture guidelines to conduct an initial survey at each site to determine ground squirrel population density. In fall 2011, staff will conduct the same set of surveys. The Department will use this population density information, along with data from monitoring the evidence of predation at perch bases and observations of birds using the perches, to help make a determination of the effectiveness of erecting raptor perches for ground squirrel control at these three sites.
- Exploring the use of traps for ground squirrel control
The department will explore and test the practicality of ground squirrel trapping as a control method.

General Services Department Priorities for 2011

- Continuing to work on fixing structural deficiencies in County buildings
- Working with Pestec and the IPM Coordinator to determine priorities in the structural deficiencies reported by Pestec
- Certifying more members of the Grounds Crew in Bay Friendly Landscaping
- Licensing more members of the Grounds Crew through the Department of Pesticide Regulation
- Increasing funding for grounds maintenance at the most severely under-funded sites

- Contracting with Phoenix Enterprises for manual weed removal and other IPM and grounds maintenance tasks

Phoenix Enterprises provides comprehensive vocational rehabilitation services to motivated-to-work disabled persons, primarily recovering homeless and mentally ill adults 18 years of age and older who are residents of Contra Costa County. Using the unskilled labor from Phoenix will free the Grounds Crew to use their expertise to accomplish tasks that require a high level of skill, tasks that may have been neglected due to lack of time and staff.

Public Works Department Priorities for 2011

- Continuing work on the pesticide screening process
The Department will continue to work with the IPM Coordinator to develop a hazard screening process for all pesticides used by the Department.
- Putting a new spray truck computer system on-line for regular data collection.
- Beginning implementation of the grazing study
The Department will implement the first year of our multi-year study of grazing and chemical weed control methods.
- Continuing to refine IPM practices
The Vegetation Manager will continue to refine the Department's IPM practices and investigate new methods of weed control.
- Revising the Departmental IPM plan
The Vegetation Manager will revise the Department IPM Plan keeping in mind the suggestions from the IPM Advisory Committee.