

**Contra Costa County Staff Responses to Issues Raised by the Public
Regarding the County Integrated Pest Management Program**

~~November-February 729, 20187~~

Date(s) Issue Raised to: TWIC = Transportation, Water & Infrastructure Committee IPM = IPM Committee or subcommittees IO=Internal Operations Committee	Issues Raised by the Public	Steps taken by the IPM Advisory Committee and County Staff from January 2009 to the present
	Using glue boards for rodents in County buildings	
11/16/16-IPM 3/16/17-IPM <u>1/18/18-IPM</u>	<i>From Parents for a Safer Environment (PfSE)</i> "The rodent control method that is horrible in particular is the use of glue boards in the county buildings. I hope to see this deplorable practice stop before the beginning of the NewYear. (11/16/16)	Pestec, the County's structural IPM contractor, used a small number of glue boards in 2016. In the past, glue boards have been used from time to time in detention facilities at the request of the Sheriff who is concerned that snap traps, the alternative, could be used by inmates as weapons. Pestec now has access to the interior space between the walls of cells where mice can roam, so technicians are able to set snap traps in those areas. Glue boards are not currently used at any other facilities in the County. The County will keep glue boards as a tool for rodent control that will be used when there is no effective alternative.
	Chairing the IPM Committee should be rotated; a scribe not associated with the Committee should be used to take notes	
2/17/16-IPM	<i>From Parents for a Safer Environment (PfSE)</i> "Chairing the IPM Advisory Committee should be rotated among members who wish to chair. A Scribe should be independent of Committee members and staff involved with the IPM Program."	<ul style="list-style-type: none"> • Every 2 years the Committee holds an election for officers. Anyone who wishes to chair the committee can nominate themselves. • The Committee elects a secretary to help take notes for the Committee's minutes which are written by staff. There is no outside person who could be a scribe.
	Staff has found no unique or innovative pesticide alternatives in the Bay Area or Nation	
11/4/15-IPM 2/17/16-IPM	<i>From Parents for a Safer Environment (PfSE)</i> "In the staff document provided titled 2015 IPM Program Accomplishments, I was very surprised to read that staff believes after reviewing programs throughout the 'Bay Area and the nation', that 'there is nothing unique or innovative in the Bay Area or the nation.'"	<ul style="list-style-type: none"> • PfSE appears to be concerned that staff has found no unique or innovative approaches to pest management. This concern seems to stem from a mis-reading of the 2015 IPM Program Accomplishments document in the section on the work history of the IPM Program Data Management subcommittee. The phrase actually reads: "Looked for data other than pesticide use to measure implementation of IPM in CCC; found nothing unique or innovative in the Bay Area or the nation"
	The IPM Coordinator does not allow the IPM Committee members and the public adequate time to review documents	
9/2/15-IPM	<i>From Parents for a Safer Environment (PfSE)</i>	<ul style="list-style-type: none"> • The IPM Coordinator sends out agenda materials in accordance with the Brown Act and County policy, which is 96 hours prior to the time of the public meeting.

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	<p>"People are often reluctant to admit that they have not had time to review documents before voting on minutes and other items. Committee members are likely to just go along with the majority and vote to accept documents as Staff submits them...It is more reasonable to provide at least four to six weeks of time for volunteers to fit in the review amongst a busy schedule." (9/2/15)</p> <p>"...I find it appalling that Staff would propose to totally eliminate the By-Laws language that requires a timely distribution of the meeting minutes to the IPM Advisory Committee. It has been difficult to read all the documents required for review within 5 days [from when] they are provided, which is a recent improvement to providing it 3 days prior to meetings that was practiced before my letter earlier this year...The By-Laws currently states that minutes be distributed 1 week after the meeting...I believe it's reasonable to amend [the by-laws] to distributing the materials within 2 weeks after the meeting to give staff time to prepare the meeting minutes, but eliminating this important timeline is not acceptable to the community." (9/2/15)</p>	<ul style="list-style-type: none"> • At the end of each meeting, the next meeting's agenda is planned so that members are aware of and can plan time for review of long or numerous documents. • Since the inception of the IPM Advisory Committee, the practice has been to distribute the minutes with the agenda materials. Because the by-laws were being updated to reflect the current designations for IPM Committee seats and to change public member terms, the IPM Coordinator proposed changing the by-laws to reflect the current practice regarding distribution of the minutes. On 9/2/15 the IPM Committee members discussed these by-laws changes and heard comment from the public on the issue. The Committee voted to unanimously approve all the by-laws changes. The changes were approved by the full Board of Supervisors.
	IPM subcommittees should focus on pesticide use and not on bed bugs or removing turf	
2/16/15-IPM 2/17/15-IPM 2/20/15-IPM 3/2/15-TWIC 3/4/15-IPM 5/6/15-IPM 8/6/15-IPM 9/2/15-IPM 11/4/15-IPM	<p><i>From Parents for a Safer Environment (PfSE)</i></p> <p>Issue of the subcommittees working on bed bugs, a community problem, rather than County-only pesticide issues and working on turf removal around buildings rather than on pesticide use in rights-of-way</p>	<ul style="list-style-type: none"> • Bed bugs affect 1000s of Contra Costa residents, both in municipalities and the unincorporated areas of the County. In order to get relief, desperate citizens are using many different kinds of pesticides in the home, throughout the bedroom, and often on the bedding itself. Reports indicate that frequently pesticides are used to excess and in a manner contrary to the labeled directions. This intimate contact with, and misuse of, pesticides is very troubling. This is a serious issue of pesticide exposure and contamination as well as an issue of the well-being of Contra Costa residents that the County has an obligation to address. • There are also bed bug issues that need to be addressed in County buildings. Staff and buildings are vulnerable where the public goes in and out of offices frequently and in large numbers. Staff and supervisors need training in identifying risks, actual infestations, and opportunities for prevention. • Converting turf to drought-tolerant landscaping accomplishes several things: <ul style="list-style-type: none"> ◦ Saves millions of gallons of water in this time of serious drought.

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		<ul style="list-style-type: none"> o Reduces the need for weed control and thus for herbicides. The limited irrigation and wood chip mulch between the drought-tolerant plants is not conducive to weed growth, Few weeds sprout in the dry soil under the mulch, and those that do sprout can often be hand-pulled. o Addresses herbicide use near buildings, which is where people have the greatest chance of being exposed to these pesticides. o Reduces maintenance hours because turf is a high maintenance plant. o Frees Grounds maintenance staff to better manage other landscapes and continue to reduce their use of pesticide. o Reduces the amount of electricity used to pump water, the amount of gas used in lawn mowers and trimmers and in trucks to travel to and from sites for maintenance, and reduces the amount of pesticide and fertilizer used in maintaining the turf. This reduces greenhouse gas emissions. o Demonstrates that the County is a leader in landscaping more wisely for the arid climate in which we live.
	County not tracking pesticide use separately for Public Works rights-of-way/roadsides, flood control channels, and County-owned parcels	
3/2/15-IPM 8/26/15-Email 3/16/16-IPM	<i>From Parents for a Safer Environment (PfSE):</i> "We do not see any good reason why pesticide usage is not being provided to the community for each roadside and flood control program." (3/2/15)	<ul style="list-style-type: none"> • The County has always tracked pesticide use separately for roadsides, flood control channels, and County-owned parcels, but because of a recent change in the way the Department reported pesticide use to the State of California, the state Pesticide Use Reports for FY 12-13 and FY 13-14 were not separated. The database that Public Works uses to track pesticide use cannot produce reports for PfSE that are user friendly since the database was never intended to be a pesticide use reporting tool. As a courtesy to PfSE, the Department has resumed separating pesticide use for the 3 programs when it reports to the state. These Pesticide Use Reports have been provided to PfSE for FY 14-15.
	Report the total amount of pesticide used not just the active ingredients	
8/26/15-Email 11/4/15-IPM	<i>From Parents for a Safer Environment (PfSE):</i> "Report total amount, not just the active ingredients of pesticides used in usage spreadsheet"	<ul style="list-style-type: none"> • In the spread sheet prepared by the IPM Coordinator every year for pesticide use by County operations, the total amount of pesticide product used is recorded as well as the total amount of pesticide active ingredient used for each product. • The California Department of Pesticide Regulation reports pesticide use for the state in pounds of active ingredient. The County has adopted this system so that pesticide use reporting is aligned with the state. But as noted above, the County spreadsheet also records total pounds or gallons of pesticide product used. • The spreadsheet is posted on the IPM website and attached to the annual report.
	Corrections to the minutes of the IPM Advisory Committee or its subcommittees requested by PfSE	
5/6/15-IPM 6/9/15-IPM 8/6/15-IPM 7/20/16-IPM	<i>From Parents for a Safer Environment (PfSE)</i> Issue of PfSE requesting changes to the minutes and then changes are not made	<ul style="list-style-type: none"> • The IPM Committee members vote on whether or not to make corrections to the minutes. The members do not always vote to make PfSE's corrections, additions, and changes. The IPM Coordinator includes written changes from PfSE (as well as other public comment) as attachments to the official record of the meeting. The official agenda, minutes, public comment, and other attachments are posted on the IPM website.

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The herbicide Roundup (active ingredient glyphosate) has been designated as a probable human carcinogen by the World Health Organization's International Agency for Research on Cancer (IARC)		
6/9/15-IPM 7/8/15-IPM 8/6/15-IPM 9/2/15-IPM 7/20/17-IPM 11/16/17-IPM	<p><i>From Parents for a Safer Environment (PfSE):</i></p> <p>"Considering that RoundUp products with the active ingredient, glyphosate, is [sic] being applied at the rate of nearly 1,000 lbs annually in the Grounds Program alone, and that glyphosate has been listed as a Probable Human Carcinogen by the World Health Organization earlier this year, are there any plans by the county to eliminate this risky chemical to reduce exposure to the community and wildlife?"</p>	<ul style="list-style-type: none"> • In 2015, the IPM Coordinator attended meetings in San Francisco with IPM coordinators and city and county staff from around the Bay to discuss the Roundup issue. At this point we do not have a less hazardous product with equivalent efficacy to replace Roundup, but we continue to look for one. The Grounds Division uses Roundup as a spot treatment and uses a little as necessary. In FY 14-15 the Grounds Division used 311 lbs. of glyphosate, the active ingredient in Roundup. • The most serious risk of exposure to Roundup is to the applicator because that person is in close contact with the material, sometimes daily. The law and the County require applicators to wear personal protective equipment and to be trained annually to prevent exposure. In light of the new probable carcinogen designation, the County is looking at whether there are additional precautions that should be taken to protect workers. • IARC identifies the potential for a chemical to cause cancer but does not quantify any increased risk to people from a chemical so designated nor does it recommend a safe level of exposure. Those designations are left up to regulatory agencies around the world. The County is waiting for the USEPA to complete its review of glyphosate. • On 11/12/15, the European Food Safety Authority ruled that glyphosate probably does not cause cancer in humans despite IARC's findings. • In March 2017, the Australian government's Pesticides and Veterinary Medicines Authority (APVMA) produced its Final Regulatory Position on whether to conduct a formal reconsideration of the chemical glyphosate. They stated that "[b]ased on this nomination assessment, the APVMA concludes that the scientific weight-of-evidence indicates that: exposure to glyphosate does not pose a carcinogenic or genotoxic risk to humans." • In April 2017, Health Canada released the following statement, "Following a rigorous science-based assessment, Health Canada has determined that when used according to the label, products containing glyphosate are not a concern to human health and the environment." • The County is still waiting for the final risk assessment from the USEPA. • In November 2017, researchers updated the Agricultural Health Study, which is a 20-year study of the effects of glyphosate on over 54,000 licensed pesticide applicators from North Carolina and Iowa. They found no statistically significant associations with glyphosate use and cancer in any part of the body. However, among applicators in the highest exposure quartile, there was an increased risk of acute myeloid leukemia compared with those who had never used glyphosate, though this association was not statistically significant. The researchers noted that this association requires confirmation.
Questions posed during public comment for items not on the agenda are not answered by the IPM Committee		
8/6/15-IPM 7/20/16-IPM 9/21/16-IPM	<p><i>From Parents for a Safer Environment (PfSE):</i></p> <p>"...please allow ample time for answering and discussing these 6</p>	<ul style="list-style-type: none"> • The IPM Committee does not take up and discuss issues that are not on the published agenda for the meeting as this would be a violation of the Brown Act. • Members of the Committee can request to have public concerns put on the

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3/16/17-IPM 11/16/17-IPM 1/11/18 Email 1/18/18-IPM	questions as listed in order of priority at the next meeting agenda. Community members have been waiting patiently since last year for most of these questions to be addressed."	agenda for a future meeting.
IPM Committee members should RSVP for each meeting		
6/9/15-IPM 7/8/15-IPM 8/6/15-IPM 11/16/17-IPM	<i>From Parents for a Safer Environment (PfSE):</i> "I attended the April 14, 2015 meeting when we waited for over 30 minutes for staff and community members on the [Weed sub] Committee to arrive to no avail. Staff had to regretfully cancel the meeting due to lack of a quorum. ...consider asking for a heads-up from committee members if they cannot attend a future IPM meeting." (6/9/15 and 7/8/15) "Would the county request Committee members to provide in writing, anticipation of absenteeism so that those who arrive at meetings are not waiting for an hour only for the meeting to be cancelled due to lack of a quorum." (8/6/15)	<ul style="list-style-type: none"> • IPM Committee members alert the IPM Coordinator when they know they will be late or will be missing a meeting of either the full committee or a subcommittee. Unfortunately, unexpected circumstances do arise from time to time. • The Weed subcommittee meeting on April 14, 2015 was the first meeting of the full IPM Committee or any of its subcommittees that had to be cancelled for lack of a quorum since the IPM Advisory Committee was formed in 2010.
Quorums have been disregarded in previous subcommittee meetings		
6/9/15-IPM 7/8/15-IPM	<i>From Parents for a Safer Environment (PfSE):</i> "According to Shirley Shelangoski who had attended all subcommittees between 2012- 2014, quorums were <i>not</i> considered in subcommittees until the recent year. Before, subcommittee meetings were held regardless of a lack of quorum."	<ul style="list-style-type: none"> • All subcommittees consider whether or not there is a quorum before proceeding with a meeting. Attendance is tracked in each set of minutes.
Absences on the IPM Committee		
8/6/15-IPM 8/26/15 Email	<i>From Parents for a Safer Environment (PfSE):</i> "Will the county track absenteeism and provide the data annually so	<ul style="list-style-type: none"> • Absences are tracked in the minutes of every meeting of the full IPM Committee and each of its subcommittees. Attendance at meetings is reported annually to the Board of Supervisors.

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	<p>that those who missed more than two in a given year be considered for removal from membership as stated in the By-Laws?"</p>	
Pesticide Use around the Hazardous Materials Office and Co. Admin Bldg in Martinez		
<p>2/20/15-IPM 8/6/15-IPM 2/17/16-IPM 11/16/16-IPM</p>	<p><i>From Parents for a Safer Environment (PfSE)</i> Issue of members of PfSE observing pesticide use around the Hazardous Materials Office at 4585 Pacheco Blvd. in Martinez without posting "Currently, pesticides are used outside the auspices of the County IPM program in many buildings, including the Hazardous Materials building and the County Administration building." (2/17/16)</p>	<ul style="list-style-type: none"> • The Hazardous Materials Program rents space from ERRG, a company that occupies the top floor of the building. They and not the County are responsible for maintaining the building and the property. • The County's posting policy does not require private owners of buildings to post their pesticide use. • On 8/6/15, PfSE videoed a Clark Pest Control technician spraying around the building at 4585 Pacheco Blvd. Clark, the contractor for ERRG, was using a pesticide called indoxacarb for ants that had been invading the building, particularly the top floor. Indoxacarb is listed as a "reduced risk" pesticide by the USEPA and is used by Pestec, the County contractor, in baits for cockroaches and ants. Hazardous Materials staff who experienced ant problems were educated by the IPM Coordinator, all food debris was removed, and boric acid baits were used in the two Hazardous Materials offices with ants trailing through. • No pesticides are being used in or around the County Administration building at 651 Pine Street that are not applied by Pestec, the County contractor, as part of the County IPM program. We are not aware of any pesticides being used at other County buildings that are not applied by Pestec. If PfSE has specific evidence of this happening, we would gladly investigate.
IPM Contract Language and reviewing contracts		
<p>11/6/13-IPM 12/5/13-TWIC 2/26/14-IPM 3/5/14-IPM 3/6/14-TWIC 8/26/15-Email 2/17/16-IPM 9/15/16-IPM</p>	<p><i>From Parents for a Safer Environment (PfSE):</i> "the county still does not have IPM language in its contracts with pest control contractors" "Contractors conducting pest control should be evaluated annually by the IPM Advisory Committee and contracts bid upon and assessed for a strong IPM track record." (2/17/16) "The Public Works Dept's Special District currently has on its payroll, a contractor who did not have to bid with IPM experience as a criteria and uses only rodenticides, including 2nd generation [sic] in public parks." (2/17/16)</p>	<ul style="list-style-type: none"> • 2009: the IPM Coordinator and County staff added IPM language to the contract for pest management in & around Co. buildings. The contractor emphasizes education, sanitation, and pest proofing as primary solutions. Insecticides, mainly in the form of baits, are used as a last resort. For the control of rats and mice in and around County buildings, the County only uses sanitation, education, and trapping. • Special Districts currently hires only 1 contractor for pest control. He is employed by means of a purchase order, which is not an appropriate vehicle for IPM contract language; however, <ul style="list-style-type: none"> ○ as a condition of his employment, he is required to abide by the Public Works "Landscape Design, Construction, and Maintenance Standards and Guidelines"¹ which contain language outlining the IPM approach. This also applies to any other contractor hired by Special Districts. ○ this has been explained to PfSE several times. • Spring 2012: to reinforce the IPM standards, the Special Districts Manager sent a letter to each Special Districts' contractor detailing the IPM approach expected of them. This is an on-going practice and any new contractors will receive the same

¹ <http://www.co.contra-costa.ca.us/index.aspx?nid=2147>

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	<p>Concerns about the letter from Special Districts to its contractors explaining the IPM approach expected of them. (9/15/16)</p>	<p>letter to emphasize the County's IPM principles.</p> <ul style="list-style-type: none"> On 11/28/12, Susan JunFish asked for Special Districts contracts and purchase orders; on 11/29/12 the IPM Coordinator sent her the contracts, purchase orders, and letters mentioned above that were sent out by Special Districts. On 2/14/13, Susan JunFish asked again for copies of the letters and was sent them on 2/15/13. The Grounds Division occasionally hires a contractor to apply pesticides that the Division does not have staff or equipment to apply itself. The IPM Coordinator considers that these contracts or purchase orders do not require IPM language because the contractor is hired for a specific pesticide application and not to perform IPM services or make any IPM decisions. In these cases the Grounds Division has already gone through the IPM decision making process and has decided the specific work ordered is appropriate. Reviewing contracts has not been in the purview of the IPM Advisory Committee. The 1 contractor hired by Special Districts for pest control (see also the 2nd bullet, above) uses mostly trapping for vertebrate pests. In FY 15-16, he used 0.02ounces of the rodenticide active ingredient diphacinone (a 1st generation anticoagulant). He does not use any 2nd generation anticoagulants. Since the IPM Program began reporting data on pesticide use in Special Districts in FY 08-09, no 2nd generation anticoagulants have been used. The concerns expressed by Susan JunFish on 9/15/16 about the clarity and detail of the letter to contractors are valid and the Decision-Making subcommittee will take up these concerns.
Unprofessional Behavior by County Staff		
<p>11/6/13-IPM 11/13/13-IO 12/5/13-TWIC 2/26/14-IPM 3/5/14-IPM 3/6/14-TWIC</p>	<p><i>From Parents for a Safer Environment (PfSE):</i> "serious pattern of hostile and unprofessional treatment to the community by County staff" "continued name-calling, shouting, and put-downs by county staff and Committee members at IPM meetings" "require staff to take training in order to learn how to work productively in public meetings"</p>	<ul style="list-style-type: none"> Staff disagree with the assertions that staff have been hostile or unprofessional toward members of PfSE or that staff have engaged in name-calling, shouting, or put-downs in any committee meetings. However, without reference to specific incidents on specific dates, it is impossible for staff to respond in detail. Members of the public have always had ample opportunity (within defined limits) to participate in all aspects of IPM Committee meetings. Starting in 2014, IPM full committee and subcommittee meetings will strictly adhere to the Ground Rules adopted unanimously by the IPM Committee on May 5, 2010. The IPM Coordinator will distribute Committee Ground Rules with each agenda packet. This will make public participation more fair and prevent one or a few individuals from dominating public comment. This course of action should limit the potential opportunities for improper discourse.
Make Audio and/or Video Recordings of IPM Committee Meetings		
<p>3/6/14-TWIC 3/2/15-TWIC 2/17/16-IPM</p>	<p><i>From Parents for a Safer Environment (PfSE):</i> "record meetings with a camcorder" "The Community requested to have IPM related meetings recorded to achieve accurate meeting minutes"</p>	<ul style="list-style-type: none"> Vince Guise, Agricultural Commissioner in 2013, suggested that meetings be audio recorded (no video). The issue may be taken up at a future IPM Committee meeting. No other advisory bodies video or audio record their meetings. If the public wishes to record meetings, they may do so and should announce their intention at the beginning of the meeting. It appears that PfSE is recording all IPM Committee meetings on a laptop, so they

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	<p>that reflect what actually happened at the meetings and to encourage professional behavior."</p>	<p>will be able to reference those recordings if need be.</p> <ul style="list-style-type: none"> • At the January 18, 2018 IPM Committee meeting, Carlos Agurto, representative from Pestec, the County's structural IPM Contractor, volunteered to be secretary to the Committee. He will make audio recordings of the meetings and provide the IPM Coordinator with at transcript.
Intimidation of a member of Parents for a Safer Environment by the IPM Coordinator		
<p>2/12/14-TWIC 3/5/14-IPM 3/6/14-TWIC 2/17/16-IPM</p>	<p><i>From Parents for a Safer Environment (PfSE):</i> "we ask that in the future, [County] staff not contact the community and pressure them to retract their public comments"</p>	<p>On November 13, 2013, Margaret Lynwood submitted a written public comment to the Internal Operations Committee. In the comment, she stated that she had "been attending pesticide related meetings and [had] discovered a serious pattern of hostile and unprofessional treatment to the community by county staff." Since Ms. Lynwood did not provide specific details, and the IPM coordinator had no record of her attending and did not remember seeing her in the last 4 years at any IPM Committee or subcommittee meetings, but only at TWIC and IO meetings, she contacted Ms. Lynwood by phone to understand her concerns and ask her if she felt that County Supervisors or other staff in TWIC or IO meetings had exhibited unprofessional behavior. She said, "No," and was unable to cite a specific instance when she had witnessed such behavior. The IPM Coordinator did not ask her to retract her public comment.</p>
Use of Pre-Emergent Herbicides		
<p>11/6/13-IPM 12/5/13-TWIC</p>	<p><i>From Parents for a Safer Environment (PfSE):</i> "The Community wants to be assured that the Public Works Dept does not use pesticides along the Flood Control District that has [sic] residual activity before a forecasted rainstorm."</p>	<p>This is an issue about pre-emergent herbicides and was discussed in a subcommittee meeting on 10/29/13 and again in the Advisory Committee meeting on 11/6/13. Both meetings were attended by both Susan JunFish and Shirley Shelangoski of PfSE.</p> <p>The following points were made:</p> <ul style="list-style-type: none"> • Pre-emergent herbicides have residual activity by design because they are meant to prevent the germination of weeds over an extended period of time, sometimes a number of weeks. • Pre-emergent herbicides are used by Public Works as part of their herbicide rotation program to prevent the development of herbicide-resistant weeds. Herbicide rotation is one of a number of best practices strongly recommended by the University of California and many other researchers to prevent herbicide resistance². Creating herbicide-resistant weeds is considered an extremely serious problem by weed scientists throughout the world. • Pre-emergent herbicides are not applied on flood control channel banks; they are used on flood control access roads above the banks. • Pre-emergent herbicides need irrigation or rainfall shortly after their application, typically within a few days to several weeks, to carry them shallowly into the soil where they become active. Because there is no irrigation on flood control access roads, pre-emergent herbicides must be applied prior to a rain event. • The Department follows all label requirements for the application of pre-emergent

² 2012. Norsworthy, Jason K., et al. Reducing the Risks of Herbicide Resistance: Best Management Practices and Recommendations. *Weed Science* 2012 Special Issue:31-62.

2000. Prather, Timothy S., J.M. DiTomaso, and J.S. Holt. Herbicide Resistance: Definition and Management Strategies. University of California, Division of Agriculture and Natural Resources Publication #8012. 14 pp.

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		<p>herbicides (and all other herbicides). Note that a pesticide label is <u>law</u> and must be strictly followed.</p> <ul style="list-style-type: none"> The use of pre-emergent herbicides can reduce the total amount of herbicide needed to control weeds in the County because it takes a smaller amount of pre-emergent herbicide to control weeds in an area than it would using a post-emergent herbicide.
	Use of Garlon 3A® (triclopyr) herbicide on flood control channel slopes without considering its half-life	
3/5/14-IPM 3/6/14-TWIC 8/26/15-Email	<p><i>From Parents for a Safer Environment (PfSE):</i></p> <p>"We want the Public works Department to consider the residual activity (or half-life) of pesticides prior to application. Particularly along the Flood Control District before a forecasted rain that can wash pesticides into the channels and contaminate the water that flows to the Bays"</p>	<ul style="list-style-type: none"> Staff has reviewed EPA documents for triclopyr reregistration; information on triclopyr in the Nature Conservancy's <i>Weed Control Methods Handbook</i>; information on triclopyr in the Weed Science Society of America's <i>Herbicide Handbook</i>; and the CA Department of Pesticide Regulation's "Environmental Fate of Triclopyr" (January 1997); and has found that triclopyr: <ul style="list-style-type: none"> Is practically non-toxic to birds, fish, and crustaceans Is of very low toxicity to mammals and is rapidly absorbed and then rapidly excreted by the kidneys, primarily in unmetabolized form Has an average half-life in soil of 30 days (considered short persistence) Would have little toxicological hazard to fish and wildlife as currently used in forestry (CCC's use is similar, although the County uses less product per acre than studies cited) Has a low K_{oc}, which indicates mobility in soil; however, studies show that triclopyr is only somewhat prone to lateral movement and is practically not prone to vertical movement. In addition, triclopyr is fairly immobile in the sub-surface flow. Could be used without harm to nearby streams in forestry applications if buffer zones are used around streams and ephemeral drainage routes. CCC Public Works Vegetation Management uses Garlon 3A as follows: <ul style="list-style-type: none"> Garlon 3A is a broadleaf contact herbicide with no pre-emergent qualities. It does not kill grasses, so it is often used with Roundup (glyphosate), which does kill grasses. Generally Garlon 3A is not used during the rainy season. It is used on roadsides, flood control channel slopes, and flood control channel access roads. On flood control channel slopes, Garlon 3A is sprayed down the slope no further than the toe of the slope. Flood control channels are trapezoidal in cross section, and the toe of the slope is where the slope meets the flat part of the channel. Depending on the site, the water in the channel is from 10-50 ft. from the toe. If there is a chance of the herbicide getting into the water, Public Works uses Renovate 3, which has the same active ingredient (triclopyr), but is labeled for aquatic use.
	Posting for pesticide use	
11/6/13-IPM 12/5/13-TWIC	<p><i>From Parents for a Safer Environment (PfSE):</i></p> <p>"The county staff are still not</p>	<ul style="list-style-type: none"> In 2009 the Departments developed a pesticide use posting policy. The policy does not require posting in "rights-of-way or other areas that the general public does not use for recreation or pedestrian purposes".

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2/20/14-IPM 2/24/14-IPM 2/26/14-IPM 3/5/14-IPM 3/6/14-TWIC 4/2/14-IPM 12/4/14-TWIC 2/17/15-IPM 3/2/15-TWIC 8/26/15-Email 11/4/15-IPM 2/17/16-IPM 11/16/16-IPM 11/16/17-IPM	<p>posting when applying pesticide in parks, along hiking trails, major intersections of rights of ways, along flood control districts where many people, children and their pets frequent."</p> <p>"Posting online of pesticide applications"</p> <p>"Posting online of pesticide use reports from <i>each</i> program as they are generated on a monthly basis [for fulfilling reporting requirements with the state Department of Pesticide Regulation]"</p> <p>Provide a list of where pesticide applications were posted for each IPM program and how many signs were used in 2013. (4/2/14)</p> <p>"The County's Posting Policy states that posting is required where there is foot access by the public or where the area is used for recreation...PfSE has shown you photos of children walking along these access trails...These access roads look just like walking trails along often idyllic looking creeks that the community use on a daily basis." (12/4/14)</p> <p>Concerns about pesticide posting (2/17/15)</p> <p>"Posting is still not done in most treated areas where people have foot access and where they recreate per the CC County's Posting Policy." (3/2/15)</p> <p>"I'd also like to see that posting is being done per policy." (11/16/16)</p>	<ul style="list-style-type: none"> • The CCC posting policy, including the provision mentioned above, is consistent with, and very similar to the posting policies of Santa Clara and Marin Counties and with the City of San Francisco. • The policy was reviewed and discussed by the IPM Committee when it was first developed, and in 2012 was revised to allow web posting and allow permanent signs in certain areas. • County Departments have verified that they abide by the posting policy. • The County's website for online posting of pesticide applications (for the areas required by the CCC posting policy) was up and running as of 3/10/15. • Pesticide use reports that are generated for the California Department of Pesticide Regulation are provided yearly to Parents for a Safer Environment. Monthly reports are available if the public wishes to view them. • In the 5/27/14 IPM Transparency subcommittee meeting, the IPM Coordinator presented a chart with a list of pesticide application postings and the number of posting signs used during the 2013 calendar year. • Note that the County Posting Policy states that posting is "Not required in locations that the public does not use for recreation or pedestrian purposes" Recreation is defined as "any activity where significant physical contact with the treated area is likely to occur". • On Pinole Creek, in the photo submitted by PfSE, the Public Works Department does not treat the paved path next to the school that the children are shown walking on. • Most of the County's Flood Control access roads are within locked gates with signs saying "Property of Contra Costa. No Trespassing". No one should be jogging or walking along these roads. • If PfSE can provide the County with information on specific access roads and specific times when people have been exposed to pesticide spraying, the County will investigate immediately. • Without information on specific locations, the County is unable to investigate this concern about not posting "in most treated areas where people have foot access and where they recreate..." • The IPM Committee has formed a Task Force to review the County's posting policy and compliance with that policy. (11/16/17)
	Adopting an IPM ordinance	
9/4/13-IPM 11/6/13-IPM 2/26/14-IPM 3/5/14-IPM 3/6/14-TWIC 3/2/15-TWIC 2/17/16-IPM	<p><i>From Parents for a Safer Environment (PfSE):</i></p> <p>Issue of adopting an IPM ordinance for the County</p>	<ul style="list-style-type: none"> • In 2009, Susan JunFish proposed the need for an IPM Ordinance to the BOS. The Board directed the Committee to investigate the issue. • In 2009, County Counsel wrote an opinion recommending the use of an administrative bulletin to supplement the County's IPM Policy. • County Counsel continues to stand by their 2009 opinion. • At several meetings in 2010 and 2011, the IPM Committee studied the issue and heard presentations from PfSE and from other counties. In 2011 the Committee concluded unanimously that the County should adopt an IPM Administrative

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1/19/17 IPM		<p>Bulletin to supplement the IPM Policy that the County adopted in 2002. In CCC an administrative bulletin serves to direct staff and carries consequences for non-compliance.</p> <ul style="list-style-type: none"> • The IPM Committee found no advantage to adopting an IPM ordinance. • In April of 2013, the IPM Administrative Bulletin was adopted. • In the fall of 2013, the IPM Committee again reviewed the issue of adopting an IPM Ordinance. For the second time, the Committee saw no advantage to developing an ordinance and once again voted unanimously to recommend the continued use of the IPM Policy supplemented by the IPM Administrative Bulletin.
Reporting “Bad Actor” pesticides		
11/6/13-IPM 12/5/13-TWIC 2/12/14-TWIC 3/5/14-IPM 3/6/14-TWIC 2/17/15-IPM 3/2/15-TWIC 8/26/15-Email 9/2/15-IPM	<i>From Parents for a Safer Environment (PfSE):</i> Disagreement on how the County should report “Bad Actor” ³ pesticides in the IPM Annual Report	<ul style="list-style-type: none"> • Since FY 00-01, the County has been publishing pesticide use figures that include use figures for “Bad Actors”. • Note that <u>all</u> pesticides used by County operations are reported in the IPM Annual Report, regardless of the toxicity or hazards of the pesticide. At issue is the categorization of pesticides in the report, not whether all use is reported. • Susan JunFish, of Parents for a Safer Environment (PfSE), has been asking that additional pesticides be reported as “Bad Actors”. To resolve this issue, the IPM Committee heard presentations from Susan JunFish and held a special meeting of the Data Management subcommittee on March 25, 2013 devoted exclusively to this issue. Dr. Susan Kegley⁴ was invited to speak, as requested by Ms. JunFish. • After hearing Dr. Kegley’s presentation and discussing the issue with her and with representatives of PfSE, the subcommittee members concluded that the County should report as “Bad Actors” only those that are designated as such in the Pesticide Action Network database. • June 26, 2013: The IPM Committee voted unanimously to make changes to the 2012 IPM Annual to reflect the recommendation from the Data Management subcommittee, as noted above. The IPM Coordinator continues to report pesticides as “Bad Actors” only if they are designated as such in the PAN database.
Use of Paraquat and Other Bad Actors for Aquatic Weed Control by the Department of Agriculture		
2/17/15-IPM	<i>From Parents for a Safer Environment (PfSE):</i> “Use of paraquat for Aquatic Weed Control and other broad applied Bad Actor Pesticides by the Department of Agriculture.” (Particular mention of South American sponge plant in the Delta was made.)	<ul style="list-style-type: none"> • The Agriculture Department has not used paraquat in any aquatic weed applications and does not apply herbicides to the Delta for aquatic weeds. In the past, the Department has treated purple loosestrife in County waterways that feed into the Delta, but from this point forward they will not be treating any aquatic weeds. • The State Department of Boating and Waterways (DBW) has treated various areas in the Delta for invasive aquatic weeds over the years, and in September 2012, Governor Brown signed legislation authorizing DBW to add South American sponge plant to the list of weeds they treat.

³ “Bad Actor” is a term coined by 2 advocacy groups, Pesticide Action Network (PAN) 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 pesticides designated as “Bad Actors” can be found in the PAN database on line: <http://www.pesticideinfo.org/>

⁴ Ph.D. Organic/Inorganic Chemistry; Principal and CEO, Pesticide Research Institute; former Senior Staff Scientist for Pesticide Action Network (PAN); instrumental in the development of the PAN database.

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		<ul style="list-style-type: none"> • State weed science experts judged that South American sponge plant posed a serious threat to the ecosystems in California waterways. This was based on research, the biology of the plant, and the rapid rate of its spread in California. • Judicious use of herbicide to eliminate small infestations before they take over and completely clog Delta waterways is an excellent use of herbicide and will prevent huge expenditures of labor and herbicide in the future. This kind of preventive use of a pesticide to reduce the necessity to use large amounts of pesticide when the pest has built to great numbers is a recognized and legitimate IPM tactic.
Providing comments on the kestrel study, and rodenticides use concerns		
11/6/13-IPM 12/5/13-TWIC 2/20/14-IPM 2/24/14-IPM 3/5/14-IPM 3/6/14-TWIC 8/26/15-Email 7/20/16-IPM	<p><i>From Parents for a Safer Environment (PfSE):</i></p> <p>"We have asked the Dept of Ag and the IPM Advisory Committee to provide comments on the Kestrel study and PfSE's Draft LD50 document in the past two years."</p> <p>In conjunction with this research paper, PfSE has brought up its concern about the rodenticides used by County operations.</p> <p>"Contractors [in Special Districts] use pesticides [rodenticides] before demonstrating alternatives first." (8/26/15)</p> <p>"I would like to first point out that the Special District program of Public Works is still using rodenticides in the county parks...It would be helpful to see the decision making tree on the way rodenticides are chosen instead of traps or asphyxiation methods using safer gases like carbon dioxide." (3/16/16)</p> <p>"The Public Works Special District program is using about 50 lbs. of rodenticides in parks." (7/20/16)</p>	<ul style="list-style-type: none"> • On 9/18/12 Susan JunFish circulated to members of the IPM Committee the abstract from the kestrel study mentioned at left. On 2/4/13, the IPM Coordinator circulated the actual research paper to all the members of the IPM Committee. • On November 22, 2013, Vince Guise, Agricultural Commissioner, sent a formal response to Susan JunFish regarding the kestrel study. (TWIC and the IPM Committee Chair and IPM Coordinator were cc'ed on this communication.) • On January 7, 2014, Vince Guise re-sent the formal response to Susan JunFish and Shirley Shelangoski. On January 16, 2014, Shirley Shelangoski confirmed having received the document. • Susan JunFish asked the Committee to comment on the study, and the formal response was provided by the Agriculture Dept. • Regarding "PfSE's Draft LD50 document", neither the Committee nor County staff can comment on data calculated by Susan JunFish that have no references or clear calculation methods. This was conveyed to PfSE in the Department of Agriculture's Kestrel response letter. • Note that as part of the Department of Agriculture's ground squirrel program, the Department surveys ground squirrel treated areas for ground squirrel carcasses (or any other carcasses). Staff rarely find dead ground squirrels above ground, which is consistent with U.C. research in the state and the experience of other agencies. Staff has never found secondary kill, such as raptors or predatory mammals, in areas the Department treats. This does not mean, nor does the County claim, that no secondary kill ever occurs in the course of the County's treatment program. • The IPM Committee did not discuss the research paper specifically; however, the Committee and County staff took the following steps regarding the rodenticide issue: <ul style="list-style-type: none"> ○ In 2012, the Agriculture Dept. conducted an in-house trial of live-trapping of ground squirrels as a possible alternative to rodenticides treatment. See below for more detail. ○ At their January 2013 meeting, the Committee heard a presentation from the Agriculture Dept on the trapping study and heard a presentation from the State Department of Fish and Wildlife on secondary poisoning of raptors and other predators and the state's efforts to restrict use of the more toxic 2nd generation anticoagulant rodenticides (CCC does not use 2nd generation anticoagulants because of their toxicity and their hazards to non-target animals that consume poisoned rodents). ○ At their March 2013 meeting, the Committee heard a presentation from Dr. Jim Hale on wildlife issues in CCC that included discussion of the impacts of

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		<p>rodenticides.</p> <ul style="list-style-type: none"> ○ At their May 2013 meeting, the Committee heard a presentation from Mt. Diablo Audubon on their campaign to curb the use of 2nd generation rodenticides. ○ The Agriculture and Public Works Departments jointly prepared a map of the County marking where rodenticides are used by the Agriculture Dept. This map was presented in separate meetings to Supervisors Gioia, Mitchoff, and Andersen, and to Susan JunFish & Shirley Shelangoski of PfSE. In these meetings the Agricultural Commissioner explained the Department's ground squirrel program and the live trapping study. ○ The Agriculture Dept. prepared a very detailed decision making document for ground squirrel management in the County to record their decision making process and explain the complexities involved in their decisions, including biology, safety, efficacy, cost and the goals of the program. This document was discussed extensively in a subcommittee meeting and again in a regular Committee meeting. PfSE members were present and participated in the discussion. ○ In 2013, the Agriculture Dept revised its ground squirrel baiting methodology to make it safer for staff, to make applications more precisely targeted, and to reduce the amount of bait used each season. The amount of bait used by the Department has been reduced by over 50% since 2011. Use has gone from 35,915 lbs in 2011 and 14,271 lbs in 2013. 14,271 lbs of bait is 1.4 lbs. of actual diphacinone. ○ In February and again in August of 2013, the IPM Coordinator investigated rodenticides use by contractors to Special Districts. She presented her findings to the Committee at the 9/4/13 meeting. ○ On 3/5/14, the IPM Committee heard an update from the California Department of Fish and Wildlife on the regulations concerning 2nd generation anticoagulant rodenticides and on secondary poisoning of raptors and mammalian predators by anticoagulant rodenticides. ○ The Special Districts' contractor has reduced his use of anticoagulant bait from 188 lbs in FY 12-13 to 88 lbs in FY 13-14 and to 53.5 lbs in FY 14-15. The amount of actual anticoagulant active ingredient in 53.5 lbs is 0.0027 lbs (0.04 oz). The contractor has increased trapping and is not using any of the more toxic and dangerous 2nd generation anticoagulants. ○ In FY 15-16 the Special Districts vertebrate pest manager used 27.5 lbs. of rodent bait, which is 0.0013 lbs. (0.02 oz.) of diphacinone. 9.5 lbs. of that rodent bait was used in a park (Livorna Park). This is 0.0076 oz of diphacinone. As noted above, the County is no longer using rodenticides in Livorna or any other park. <u>In FY 16-17 the Special Districts vertebrate pest manager used 18 lbs. of rodent bait, which is 0.0009 lbs. (0.01 oz.).</u> ○ As of May 2016, Special Districts is no longer baiting with diphacinone for rats in Livorna Park. The shrubs that were being damaged by rat gnawing have recovered and are thriving. The contractor will continue to monitor at Livorna for rat damage. ○ In the spring of 2016, the IPM Decision-Making subcommittee asked the IPM Coordinator to create a decision-making document for gopher management in the County. The document was finished in June 2016. In the Grounds Division, the gopher manager uses only carbon dioxide asphyxiation and traps to control gophers in County landscaping. The

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		<p>Special Districts' contractor uses trapping and diphacinone, a 1st generation anticoagulant rodenticide, for gophers in Livorna Park. He uses trapping in Livorna wherever it is safe to do so, i.e., where children are unlikely to find and play with the traps. He uses diphacinone in the Hidden Pond and Driftwood landscaping zones because the budgets in these two Special Districts will not cover trapping, which is more labor intensive. Both those landscaping zones are frontage property. The only other location where the Special Districts' contractor manages vertebrate pests is the Alamo School field, where he is using traps.</p> <ul style="list-style-type: none"> • <u>In 2017, the IPM Committee will again have presentations on ground squirrel management and rodenticide hazards.</u>
	<p>Trapping for ground squirrels</p>	
<p>12/5/13-TWIC 2/20/14-IPM 2/24/14-IPM 3/5/14-IPM 3/6/14-TWIC 10/9/14-TWIC 1/14/15-IPM 8/26/15-Email 2/17/16-IPM 7/20/16-IPM</p>	<p><i>From Parents for a Safer Environment (PfSE):</i></p> <p>"[PfSE] asked TWIC to instruct the Department of Agriculture and Public Works Dept to use trapping methods [for ground squirrels]"</p> <p>"Santa Clara spends only \$25/ground squirrel trapping & removal"</p> <p>"Isn't it worth the effort to learn how the other counties are doing using only trapping for ground squirrel control?" (10/9/14)</p> <p>"One cannot compare efficiency of our [County] staff applying rodenticides and compare that to them trapping and stacking up overtime costs during the learning curve...A good-faith comparison would have been to utilize expert trappers vs our staff applying rodenticides, and then comparing costs." (10/9/14)</p> <p>"[The IPM Coordinator] states that the county would incur a charge of \$16,720 per linear mile for ground squirrel control if we paid a contractor who charges \$25/squirrel trapped. This is very speculative and we would like to see the county take bids from trappers and share the proposals with the Committee." (1/14/15)</p> <p>"Pilot Trial of rodenticides vs tapping done in 2012, biased & scientifically indefensible."</p>	<ul style="list-style-type: none"> • In 2012, the Agriculture Department ran an extensive, in-house ground squirrel live trapping trial to determine the feasibility of using live traps to protect critical County infrastructure from ground squirrel burrowing. <ul style="list-style-type: none"> ○ The trapping was successful in that staff were easily able to capture 152 ground squirrels in the 1,200 linear foot trial area along a County road over the 5 day trial period. ○ The squirrels were euthanized on site by the California Department of Fish and Wildlife. ○ Unfortunately, squirrels from the surrounding area quickly moved into the vacant burrows. <u>This makes trapping ineffective in areas with surrounding pressure from ground squirrels.</u> ○ When the Department uses rodenticide bait, the squirrels do not move back into the vacant burrows for an extended period of time. The Department surmises that because baited squirrels die mostly in their burrows, the carcasses repel any newcomers. ○ The Department found that live trapping would be prohibitive. It would cost \$5,074/linear mile compared to \$220/linear mile using bait. The Department treats around 925 linear miles of roadway each year. ○ Note that along roadsides, the Department spreads bait in a 12 to 15 ft wide swath at a rate of 2 to 3 oat kernels per square foot only in areas where ground squirrels are active. This treatment method takes advantage of the natural foraging habit of the ground squirrel, an animal that is highly adapted to finding individual seed kernels on the ground. ○ The Department verified the expense by contacting 2 pest control contractors. Using their fees per hour or per squirrel trapped, the Department estimated that the cost to use a contractor to trap ground squirrels would be between \$12,524 and \$16,700 per linear mile. This does not compare favorably to the Department estimate of \$5,074/linear if work were done by Department staff. ○ <u>Note that at the \$25/squirrel rate quoted by PfSE, it would cost the County \$16,720/linear mile if the ground squirrel catch rate were similar to the 152 squirrels/1,200 linear feet.</u> This is 3 times more than it cost for Agriculture Department personnel to trap over a linear mile, so using a contractor would not save money, even if this method were effective. ○ We are assuming that Susan JunFish's 7/20/16 comment on the cost of trapping ground squirrels comes from the IPM plan for Rodent Control for

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	<p>(8/26/15) "Cost of trapping inflated." (8/26/15) "Trapping [for ground squirrels] costs about 50% more according to a Ventura County Ag Dept report, or approximately \$80,000 more for CCC." (7/20/16)</p>	<p>Flood Control Facility Protection approved by the Ventura Board of Supervisors in December 2006. PfSE provided a copy of this IPM plan to the IPM Committee a number of years ago. In a table in that IPM plan, the county summarizes the costs for various treatments for ground squirrels. The table makes it clear that the costs are "estimates [for] one treatment event for a typical [flood control] facility." The Ventura IPM plan estimates the cost of trapping to be almost 100% more than the cost of broadcasting diphacinone bait (\$1700 for baiting vs. \$2900 for trapping). Note that the report does not define the "typical facility", so it is not possible to compare their estimates to the actual costs experienced in Contra Costa County. Note also that Ventura did not run a trial prior to adopting their IPM plan to determine the real costs of trapping or whether that strategy could be effective within the 3 "treatment events" the IPM plan recommends. It is not clear how Ms. JunFish calculated the \$80,000 extra needed to trap ground squirrels in Contra Costa County.</p> <ul style="list-style-type: none"> ○ One of the pest control contractors who was contacted for an estimate said he had also observed the ineffectiveness of trapping in areas with surrounding ground squirrel pressure. ○ The Department also observed some other unexpected outcomes: <ul style="list-style-type: none"> ▪ Traps were checked daily, but staff found squirrels bloodied and wounded from fighting with each other or trying to chew their way out of the traps. ▪ Traps were vandalized by the public even though large signs warned people to leave the traps alone. This exposed the public to health risks from bites and scratches and from transmissible diseases carried by ground squirrels. ○ In certain small areas that have a limited number of ground squirrel colonies, live trapping may be a viable alternative. <ul style="list-style-type: none"> • Santa Clara County Regional Parks find live trapping effective for their limited use of the method. They trap squirrels around Regional Park buildings to prevent undermining of foundations. This is a very small area compared to the hundreds of miles of roads involved in CCC. Park rangers are close by to educate the public and to observe the traps continually. This reduces vandalism and allows park personnel to have squirrels dispatched soon after they are trapped, which prevents harm to the squirrels from fighting or gnawing the cage. • In March 2006, the Ventura County Board of Supervisors directed county staff to avoid the use of anticoagulant rodenticides within county-owned properties and facilities. To address these concerns, the county hired a consultant and formed an ad hoc committee. The County developed an IPM program and as a result of a subsequent study, the ad hoc committee <i>and</i> the Board recommended broadcast baiting with diphacinone as the primary control method for ground squirrels. The Board approved this program in December 2006. • The CCC Agriculture Department has also evaluated kill traps but has chosen not to use that method for many reasons, including the increased risk of taking non-target animals, the risk of injury to curious children, and the expense.
	Burrowing rodent control	
1/20/17-IPM	<i>From Parents for a Safer</i>	In 2017, the IPM Committee heard a presentation on the use of carbon monoxide

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<p>11/16/17-IPM</p>	<p><i>Environment (PfSE):</i></p> <p>The IPM Committee should investigate the use of carbon monoxide for controlling burrowing rodents.</p>	<p>and carbon dioxide for burrowing rodents.</p> <p>Dr. Roger Baldwin, from UC Cooperative Extension, gave the presentation on carbon monoxide (CO) and made the following points:</p> <ul style="list-style-type: none"> • His research was done in alfalfa fields, but it probably relates fairly well to rights-of-way. (In CCC, the greatest amount of rodenticide is used on rights-of-way to reduce damage from ground squirrels. A tiny amount of rodenticide is used in Special Districts for gophers, and no rodenticides are used in County grounds.) • Using CO in rights-of-way will cost more than it did in his alfalfa fields. Efficacy still varies tremendously from site to site. It works best when soil is moist and not sandy. • It takes 3-4 minutes to treat each burrow, and other openings must be covered with soil, so the gas does not escape. It would be difficult to try to dig up hard packed clay in the summer to cover burrow openings. Sand bags might work, but they are heavy and time-consuming to load, unload, and carry to and from the truck to each hole. <p>The Grounds Division Vertebrate Pest Manager already uses carbon dioxide to kill gophers and moles in County landscaping, in addition to trapping. In the summer of 2017, the Grounds Division hosted a demonstration of the carbon monoxide machine, which they are considering purchasing.</p> <p>Using either CO or CO₂ along County roads would likely be very costly due to the many miles of road and the many ground squirrel burrows along some sections of road. It would be most effective in the winter or spring when the soil is wet and prevents gasses from leaking out. The Agriculture Department, the entity that manages ground squirrels for the Public Works Department, is engaged in invasive weed control and other duties during that time of year and could not attend to ground squirrels as well. In August when the Department has traditionally handled ground squirrels, the soil is dry and hard. Gasses leak out in dry soil, and as mentioned above, covering holes would be challenging.</p>
<p>CCC is the only Bay Area county using rodenticides for ground squirrels</p>		
<p>12/5/13-TWIC 10/9/14--TWIC 7/20/16-IPM</p>	<p><i>From Parents for a Safer Environment (PfSE):</i></p> <p>"[Contra Costa is] currently the only Bay Area county to continue to use the archaic and non-specific to target pest method of rodenticides to kill grounds squirrels"</p> <p>"It's great that the Agriculture Department has decreased usage of rodenticides from 36,615 pounds [of treated grain] applied two years ago to 14,391 pounds [of treated grain] applied in the most recent fiscal year. However it is still 14,301 pound [sic] more of bait applied than all Marin, San Francisco, and Santa Clara counties combined that do not use any rodenticides at all in open</p>	<p>Note that CCC uses diphacinone-treated bait to protect critical infrastructure in the County from damage caused by ground squirrel burrowing. Diphacinone is a 1st generation anticoagulant that is less toxic and less persistent in animal tissues than 2nd generation anticoagulants. The Agriculture Department endeavors to maintain a relatively ground squirrel-free 100 ft buffer along various County roads (mainly in East County), along levees and railroad embankments, and around earthen dams and bridge abutments. To maintain this buffer, the Department treats a 12 to 15 ft. swath.</p> <ul style="list-style-type: none"> ◦ Alameda County engages in a ground squirrel treatment program using diphacinone bait that is very similar to CCC. They treat roadsides and levees and Zone 7 Water District sites and use a similar amount of diphacinone-treated bait. • The City and County of San Francisco does not have ground squirrel problems to contend with; however, as of February of 2016, their IPM program allows the use of bromadiolone bait (a 2nd generation anticoagulant rodenticide) for rats at the SF Airport and by commercial lessees on city properties that are not adjacent to natural areas. Second generation anticoagulants are more toxic and more persistent in the tissues of poisoned animals than 1st generation anticoagulants, such as the diphacinone that CCC Department of Agriculture uses. Bromadiolone persists in liver tissues for 248 days compared to 90 days for diphacinone which

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	space." (10/9/14)	<p>makes sub-lethally poisoned animals walking hazards for predators much longer.</p> <ul style="list-style-type: none"> Note that as of February 2016, San Francisco allows the use of diphacinone for baiting rats in areas with high public health concerns and where trapping is infeasible. CCC uses only trapping to control rats and mice in and around County buildings. But note also that CCC is far less urbanized than San Francisco, and therefore does not have the same kind of severe pest pressure from rats. Marin and Napa County Public Works Departments reported that they have nowhere near the kind of ground squirrel populations that East Contra Costa County has, and consequently, they don't do anything about the few ground squirrels along their roads.
The County should use volunteers and free labor		
12/5/13-TWIC 3/6/14-TWIC 2/17/16-IPM 11/16/17-IPM	<p><i>From Parents for a Safer Environment (PfSE):</i></p> <p>The County should use free labor programs</p>	<ul style="list-style-type: none"> This could be particularly helpful around County buildings. The Grounds Manager would welcome Parents for a Safer Environment (PfSE) volunteers to pull weeds at particular sites, but PfSE would first need to negotiate with the County to determine if PfSE volunteers would be permitted work on County landscaping. If the work were approved, PfSE would need to organize and supervise the volunteers. Note that County unions have protested the use of inmate labor for jobs that could be filled by union members. The union recently won a grievance against the Sheriff's Department regarding the use of inmate labor for grounds maintenance work. The union has filed a grievance against the fire department regarding the use of inmate labor to clear brush. The Grounds Manager does not anticipate that PfSE volunteers pulling weeds would precipitate these kinds of union actions. In the County's other IPM programs, using volunteers is more difficult. <ul style="list-style-type: none"> "Free" labor involves considerable County resources including outreach to solicit volunteers, planning and organizing work sessions, staff time for training volunteers, transportation of volunteers, equipment for volunteers and staff time for supervision. Almost all of the Agriculture Department's noxious weed program involves activity on private land or on lands that are not owned or managed by the County. Use of volunteer help in these areas would involve liability for those land owners or managers. Much of the Public Works Department's creek and roadside vegetation management involves work in dangerous areas such as roadsides or steep and rocky slopes and requires the use of hazardous equipment such as chain saws and brush cutters. County liability for volunteers performing this kind of work would be extremely high. The County's structural IPM program is not suited to the use of volunteer labor. Note that the County does use volunteers, most notably in creek restoration and clean up, for creek water quality monitoring and for outreach to the public about creek water quality and the value of healthy creeks and watersheds.
Grazing has no significant impact on water quality		
12/4/14-TWIC 8/26/15-Email	<p><i>From Parents for a Safer Environment (PfSE):</i></p> <p>"...[I]n each of the four case</p>	<ul style="list-style-type: none"> The County is aware that grazing does not have a significant impact on water quality. Economics and not water quality is the limiting factor in the vegetation management situations in the County. Public Works continues to expand its grazing program where it is most appropriate and/or cost-effective, and grazing

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	<p>studies, grazing had NO significant impact on water quality. It is my hope that this research can provide decision makers with confidence that managed grazing is an effective, economical and safe vegetation management tool along watercourses."</p> <p>"Small PfSE Pilot Trial in 2009 showed no contaminants downstream of grazing." (8/26/15)</p>	<p>has become a permanent tool in the County's IPM Toolbox.</p>
The County should expand goat grazing and competitive planting		
<p>12/5/13-TWIC 3/5/14-TWIC 2/17/15-IPM 8/26/15-Email 7/20/16-IPM 5/11/17-IPM 11/16/17- IPM</p>	<p><i>From Parents for a Safer Environment (PfSE):</i> "The County should expand the competitive planting and goat grazing programs"</p> <p>"[One decision-making document] asserts that goat grazing costs much more than herbicide spraying; however it appears the cost of grazing during the in-season are [sic] being compared with herbicide usage. Other case studies we are evaluating show that grazing is cost effective and even cheaper than herbicide usage." (2/17/15)</p> <p>Grazing costs are inflated and cost of herbicide use is deflated. (8/26/15)</p> <p>"With evidence that grazing causes no more damage and can be less expensive in the short term and also less risk to public health and the environment, we need to expedite moving away from herbicide usage and utilize more grazing." (7/20/16)</p>	<ul style="list-style-type: none"> • The County Flood Control District is partnering with Restoration Trust, an Oakland-based non-profit, in a native planting experiment along Clayton Valley Drain (near Hwy 4 adjacent to Walnut Creek). The study involves planting 2 species of native sedge and 1 species of native grass. These are perennial species that stay green year round and are resistant to fire. The plants are compatible with flood control objectives because they do not have woody stems, and during flood events, they would lie down on the slope, thus reducing flow impedence. They are not sensitive to broadleaf herbicides that will be needed to control weeds at least until the plants have spread enough to outcompete weeds. County volunteers installed the first plantings on December 7, 2013 • Note that it is conceivable that herbicides may always have to be used on these plantings to prevent the area from being overrun with weeds because the surrounding weed pressure is very high. • Restoration Trust will be monitoring the test plots through 2018 to assess the survival of the native plants and their degree of successful competition with non-native annual species. The County will gather information over the same time period to determine whether, how, and where to expand this kind of planting. The County cannot expand this project without data on its costs and viability. • Over the last 3 years, the Public Works Department has expanded its use of goat grazing considerably. In FY 12-13 they grazed 74 acres, in FY 13-14 they grazed 183 acres, and in FY 14-15 they grazed 367 acres. It is now a regular management tool for the Department. Every site the County manages differs in the ease with which goats can be used and their suitability for managing vegetation. The Department uses goats where they are appropriate and cost effective, and continues to gather data on costs and long-term effectiveness at individual sites. Cost is affected by many factors: <ul style="list-style-type: none"> ○ The size of the site—loading and unloading the animals is a fixed cost, so small sites cost more per acre than large sites ○ The ease of access to the site—the harder it is to get the goats into an area, the more expensive it is ○ The availability of water—if water must be trucked in, the cost is greater ○ The security of the site—the more fencing that is required and the more the fences must be taken down and erected within the site both increase the cost ○ The time of year—because of the law of supply and demand, cost is greater during the peak grazing season ○ The presence of endangered species—sites with endangered species and

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		<p>other restrictions from the State Dept. of Fish and Wildlife are good candidates for grazing regardless of the cost</p> <ul style="list-style-type: none"> • Although the cost of off-season grazing is less expensive than during the peak grazing season, Public Works cannot effectively manage all the weeds that grow in the Flood Control District only with off-season grazing. • In 2016 Public Works continued to use grazing wherever possible and to allow the grazer to stage goats on various channels and in detention basins in exchange for free vegetation management from the goats. • In FY 15-16 the County used goats to graze a total of 315 acres which included 158 free acres. Without the staging arrangement with the grazer, the County would have paid around \$950/acre for grazing. With the free acres, the cost came down to \$470/acre. This is twice what it costs to treat creek banks with herbicide (\$222/acre).
Considering least-toxic alternatives before choosing pesticides		
<p>12/5/13-TWIC 2/26/14-IPM 2/17/15-IPM 8/6/15-IPM 8/26/15-Email 11/4/15-IPM 2/17/16-IPM 11/16/17-IPM</p>	<p><i>From Parents for a Safer Environment (PfSE):</i> "Staff has still not demonstrated that for <i>each</i> pest control problem, least toxic alternatives were evaluated prior to choosing pesticides." Estimates for costs of herbicide applications need to include cost of permits, tracking requirements, storage of chemicals, licensing, training, etc. "The IPM Advisory Committee has not yet reviewed several key data in the [decision-making documents] that justify using broadcast herbicide spraying along Right of Ways and rodenticide usage in open space." (2/17/15) "Also, has the county investigated least toxic methods in accordance with the IPM Policy?" (8/6/15)</p>	<ul style="list-style-type: none"> • In 2012, the IPM Committee developed a form for recording IPM decisions made by the Departments. In 2013, each IPM program in the County produced at least 1 decision-making document for a specific pest or pest management situation (the Agriculture Department produced 2 documents that year). • These documents show which least-toxic alternatives are considered and tested, which are being regularly employed, which are not, and why. • In 2013, 2014, 2015, 2016 & 2017, each new decision-making document was extensively reviewed by the Decision-Making subcommittee with PfSE members in attendance. • Recording the thought processes and decision-making path for each pest or pest management situation takes considerable time (approximately 40 hours of work per document). • In 2014, the Decision-Making subcommittee reviewed and, after numerous revisions, accepted 4 more decision-making documents. These discussions were conducted in public with members of PfSE in attendance. • In 2015, the Weed subcommittee reviewed and revised 1 more decision-making document which covered how the County decides to use grazing as a management tool. • In 2014, the Cost Accounting subcommittee chose to research the costs associated with altering landscapes around County buildings to require less maintenance, less water, and less herbicide. The subcommittee concluded that this is a very worthy goal, but more complicated to achieve than expected. Sites must be considered individually because one plan will not fit all, and in the midst of severe drought, it is not the time to begin replanting. The subcommittee also explored the idea of replacing lawns with artificial turf, but decided that it is not the answer except in very specific, limited situations. Artificial turf has high up-front costs, still requires maintenance, can become infested with weeds growing in soil that accumulates on top of the mat, and has environmental consequences at the end of its life, • Herbicide treatment costs reported in IPM Annual Reports from 2013 onward include all associated costs mentioned by PfSE. When costs are compared in future documents, every effort will be made to include all related costs for both pesticides and alternatives.

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Excessive pesticide use in CCC		
<p>12/5/13-TWIC 2/26/14-IPM 12/4/14-TWIC 3/10/15-IPM 2/17/16-IPM 3/16/16-IPM 7/20/16-IPM 11/16/17-IPM</p>	<p><i>From Parents for a Safer Environment (PfSE):</i></p> <p>Contra Costa County uses more pesticide than any other Bay Area County (or, than several Bay Area Counties combined)</p> <p>"lack of progress is evident in that the county has not significantly altered their use of pesticide since 2009"</p> <p>"The single most underlying problem I see in the IPM Program is that there is little to no leadership in guiding the County to reduce pesticides. (12/4/14)</p> <p>"Compare the quantity and the type of pesticides being used by neighboring counties of Marin, S.F., and Santa Clara Counties [sic] for the same pest problems." (2/17/16)</p> <p>"...I am concerned about the exponential increase of herbicides being applied by the Grounds program in the last fiscal year [FY 14-15]." (3/16/16)</p> <p>"The Right of Ways program of Public Works alone used over 10,200 lbs of pesticides last fiscal year, using 20 herbicides...These [sic] program needs review of why so much pesticides are required and at such high rates." (3/16/16)</p> <p>"...CCC Ag Dept's usage of the active ingredient diphacinone rodenticides in the last 5 years increased by 15% in open space, with a 90% increase between the last 2 years." (7/20/16)</p> <p>"The Public Works Department's Grounds Program in the last 5 years increased their herbicide usage by 73%. CCC Grounds program used 700% more herbicides than the counties of Santa Clara and Marin combined last year [presumably 2015] (600 lbs vs 100 lbs) even when Santa</p>	<ul style="list-style-type: none"> • The assertion that CCC uses more pesticide than any other Bay Area County, or other counties combined, is hard to evaluate since staff have not seen current pesticide use figures for County operations in other Bay Area Counties. • This could be researched, but would take time. It is difficult to compare counties, all of which vary greatly in their size, their budgets, their staff, their pests, their weather, and the kinds of responsibilities they choose to undertake. Staff feel that comparing pesticide use in various counties is not particularly relevant to how well Contra Costa County operations are implementing IPM. • In 2012 and 2013, the IPM Data Management subcommittee undertook to find additional metrics to evaluate the County's IPM programs. This proved to be a difficult task, and the committee's research did not discover any unique or innovative measures for evaluating IPM programs in other Bay Area counties, or across the U.S. • The subcommittee agreed that pesticide use data do not reveal whether the County is implementing IPM, and so in 2012, the subcommittee developed the IPM Priority Assessment Tool. This is a compilation of IPM best management practices (BMPs). The subcommittee asked the Departments to fill out the form in 2012 and 2013 and report the percentage of implementation of each of the BMPs. • It is important to understand that pesticide use can increase and decrease from year to year depending on the pest population, the weather, the invasion of new and perhaps difficult to control pests, the use of new products that contain small percentages of active ingredient, the use of chemicals that are less hazardous but not as effective, the addition or subtraction of new pest management projects to a department's workload, and cuts or increases to budgets or staff that change priorities or workload. • From FY 00-01 through FY 16-17, the County has reduced its pesticide use by 75% --from 18,931 lbs of active ingredient in FY 00-01 to 4709 lbs of active ingredient in FY 16-17. • Since FY 00-01, each Department has been evaluating its pesticide use and researching options for eliminating or reducing pesticide use. By 2015 County operations had eliminated the use of 24 of the 31 "Bad Actor" pesticides that they had been using and had reduced the lbs of "Bad Actor" active ingredients by 84%. • The County's pesticide use trend follows a trend typical of other pollution reduction programs. Early reductions are dramatic during the period when changes that are easy to make are accomplished. Once this "low-hanging fruit" has been plucked, it takes more time and effort to investigate and analyze where additional changes can be made. The County is entering this period, and if further reductions in pesticide use are to be made, it will require time for focused study and additional funding for implementation. • Note that County operations use about 2% of all the pesticide (active ingredients) that is required to be reported in the County. The total reported to the state does not include homeowner use, which researchers suspect is a considerable amount. • In FY 14-15, the Grounds Division used only 1/3 of the pesticide it used in FY 00-01. The amount used in FY 14-15 was 154 lbs. of active ingredient less than in

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	<p>Clara county has at least 50% more grounds requiring management." (7/20/16)</p> <p>The Public Works Department's Facilities program manages pests in buildings and has been doing great until last year when insecticide usage inside building(s) [sic] went up past 8 lbs." (7/20/16)</p>	<p>FY 13-14.</p> <ul style="list-style-type: none"> • In FY 14-15 the Public Works Roadside and Flood Control Channel Maintenance Division (the "Right of Ways program" that PfSE refers to) used 4,780 lbs. of pesticide active ingredients. This is a little more than ¼ of the pesticide they used in FY 00-01. • In FY 14-15 the Agriculture Department used 346 lbs. <i>less</i> of the anticoagulant diphacinone than the previous year. In FY 15-16, the Department reduced its use even further. In FY 14-15 the Department used 154.7 lbs of diphacinone and in FY 15-16 it used 76 lbs. Over the last 5 years, this is a dramatic decrease of 86% and a decrease of 95% from the 1420.7 lbs. used by the Department in FY 00-01. • The Grounds Division use of herbicide has indeed increased over the last 8 years. The Recession and its attendant budget cuts, along with decisions by the former Grounds manager to stop almost all herbicide use, contributed to several years of minimal use. Weeds and their seeds were not managed effectively for several years resulting in large weed and weed seed loads at many County properties. Over the last 6 years, the current Grounds Manager and his crew have been working very hard to reduce the weed pressure and improve the aesthetics of County landscaping. This has included the application of prodigious amounts of woodchip mulch and reducing irrigation to prevent weeds, but it has also meant the use of more herbicide. Inadequate budgets and staffing problems have made the recovery of County properties slow. Currently (2016) the Division is in much better shape and has enough money and almost enough staff to properly maintain County landscaping. As the crew reduces the weed load, they can more easily maintain relatively weed-free landscapes with physical methods such as handpulling and mulching. • Pestec, the County's structural pest management contractor that manages pests in and around buildings, has been battling very large ant populations the last 2 (2015 and 2016) years, and this has increased the amount of insecticide used. Insecticides for ants are all in the form of baits and pose very little exposure for County staff and wildlife.
<p>CCC should do more IPM training and outreach to County staff and the public</p>		
<p>12/5/13-TWIC 2/17/16-IPM 3/16/16-IPM 11/16/16-IPM 3/16/17-IPM</p>	<p><i>From Parents for a Safer Environment (PfSE):</i></p> <p>"the County IPM Coordinator and the IPM Advisory Committee [should] provide annual IPM training and outreach programs to both county staff and the public"</p> <p>The County should "provide training and conferences such as those conducted by Santa Clara and San Francisco counties which train hundreds of interested participants."</p> <p>"I would like to see Contra Costa County, with more resources than [Parents for a Safer Environment], facilitate some training for</p>	<ul style="list-style-type: none"> • The IPM Committee is an advisory body to the Board of Supervisors and does not have a budget, nor does it have the staff or the mandate to provide outreach and training. • There is no need to duplicate San Francisco and Santa Clara's regional IPM conferences, and it would be impossible for the IPM Coordinator to do so without staff and budget. • In 2012, the IPM Coordinator partnered with cities in CCC to provide a half-day landscape IPM training to City and County staff and will probably do so again in the future. • The IPM Coordinator provides extensive education in person and over the phone to County staff and Contra Costa citizens on bed bug awareness and an IPM approach to managing bed bugs. The IPM Coordinator produces educational materials on bed bugs for professionals and lay people. Materials are housed on the Health Services bed bug website (cchealth.org/bedbugs). • The Departments provide annual training to County staff that includes IPM. • County staff attend numerous trainings and conferences that include IPM training

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	<p>municipalities in our county for some of the toughest problems that trigger pesticide usage...” (11/16/16)</p>	<p>in order to stay current on pest management research and to maintain their various licenses.</p> <ul style="list-style-type: none"> • The Department of Agriculture has a biologist on-call from 8 AM to 5 PM each weekday to answer questions from the public about pests and pest management. Biologists base their responses on IPM principles and on materials and resources from the U.C. Statewide IPM Program. • Every day in the course of their work, County staff from Public Works, Health Services and the Department of Agriculture engage citizens in dialog about the pest management work the County does and the IPM principles the County employs. • The Department of Agriculture provides many training sessions each year on pesticide safety (including IPM issues) to growers, farm workers, agencies, and the pest control industry. • The Department of Agriculture is a member of the <i>Egeria densa</i> Integrated Pest Management Committee and developed the Contra Costa Delta/Discovery Bay Region Brazilian Waterweed (<i>Egeria densa</i>) Integrated Pest Management Plan. • The County Clean Water Program sponsors an annual Bay Friendly Landscaping training for County staff and professional landscapers throughout the county. This training includes information about IPM and about reducing inputs into and outputs from landscaping activities to prevent pollution in creeks and the Bay. • The County Clean Water Program provides support for watershed coordinators and friends of creeks groups that coordinate volunteers to conduct general outreach to the community about water quality in creeks and the value and importance of wildlife habitat, watersheds, and creek restoration. • The County Clean Water Program provides support to the Bringing Back the Natives Garden Tour which educates the public about the many benefits of gardening with California native plants. • The County Clean Water Program supports the Our Water, Our World Program in Contra Costa County (a program originally developed by CC Central Sanitary District). This program provides in-store IPM education directly to consumers who are purchasing pesticides. IPM training is also provided for nursery and hardware store employees. • In 2014 the County Clean Water Program launched 3 other IPM and pesticide public education programs. • The Contra Costa Master Gardener Program trains volunteers with a curriculum that includes IPM. Master Gardener volunteers are available Monday through Thursday from 9 to Noon to answer gardening and pest management questions from the public. Advice is based on materials and resources from the U.C. Statewide IPM Program. Master Gardeners also provide presentations on gardening and IPM to a broad cross section of Contra Costa citizens. • The IPM Coordinator accepts many speaking engagements throughout the County and the region to provide training on IPM and especially on bed bug issues. • The IPM Coordinator and other County staff have been working closely with cities to provide guidance on the bed bug infestations they are experiencing. • The IPM Coordinator is working with Code Enforcement in the City of Richmond to develop bed bug training for Code Enforcement officers throughout the state. • Every month the IPM Coordinator spends a significant number of hours talking

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		<p>with citizens about least-hazardous bed bug control.</p> <ul style="list-style-type: none"> • The Agricultural Department represents the California Agricultural Commissioner's and Sealer's Association as the sitting member of the California Invasive Species Advisory Task Force. • In October 2013, County staff attended a Parents for a Safer Environment's IPM workshop and found it informative. Parents for a Safer Environment can provide a useful community service by hosting more such workshops. • In April 2014, the IPM Coordinator provided an in-person IPM tutorial for the Grounds Division's new spray technician. • In May 2014, the IPM Coordinator arranged an IPM workshop given by Pestec, the County's Structural IPM Contractor, for the County's Head Start Home Base educators. Pestec presented information on how to prevent pests in the home and simple, non-toxic strategies for low income families to use to combat pest invasions. Home Base educators provide in-home education to Head Start families. • In May 2014, the Contra Costa Environmental Health Division sponsored a workshop on IPM for bed bugs for County Environmental Health Inspectors and code enforcement officers in Contra Costa municipalities. • In July 2014, the County hosted a presentation by the U.C. Horticultural Advisor on how landscapes should be managed during drought and how to plan landscapes for what is likely to be continual droughts. County staff, both administrators and maintenance personnel, along with park personnel from the city of Danville attended. • In July 2014, the IPM Coordinator provided a bed bug awareness training for the residents of Meadow Wood at Alamo Creek, a senior living facility in Danville, along with subsequent consultation with individual residents and staff. • In September 2014, the IPM Coordinator provided the Greater Richmond Interfaith Program with assistance for a bed bug infestation at their Family Housing Program. • In February 2015, the IPM Coordinator met with staff at the Bay Area Rescue Mission in Richmond to discuss bed bug prevention. • In June 2015, the IPM Coordinator completed an IPM Guidance manual for municipalities in Contra Costa County with help from Beth Baldwin of the County Clean Water Program and Stephen Pree of the City of El Cerrito. The three had worked for 2 years to develop IPM guidance for cities on implementing IPM and to develop standard operating procedures for various pests. The three presented an IPM workshop for municipal staff that included information on how to use the manual and resources available to them within the County. • In November 2015, the IPM Coordinator and Luis Agurto from Pestec provided a bed bug training for County Adult Protective Services staff who have been encountering bed bug problems in their clients homes more frequently. • In April 2016, the IPM Coordinator helped arrange a County-sponsored Bay Friendly Landscaping refresher training at the Pittsburg Civic Center open to all Bay Friendly certified landscaping professionals in the County. • In April 2016, the IPM Coordinator and Luis Agurto from Pestec provided a bed bug awareness training for staff from the Behavioral Health Division. • In May 2016, the IPM Coordinator arranged a talk on mosquitoes as vectors of disease by Dr. Steve Schutz of CC Mosquito and Vector Control for the IPM

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		<p>Advisory Committee.</p> <ul style="list-style-type: none"> • In May 2016, the IPM Coordinator gave a class in home and garden pests at the Gardens at Heather Farms for the general public. • In May 2016, the IPM Coordinator helped arrange a talk at the Richmond Civic Center on vertebrate pest management for County and municipal staff and professional landscapers. • In May 2016, the IPM Coordinator provided a bed bug prevention training to the County's Discovery House staff. • In June 2016, the IPM Coordinator and Carlos Agurto from Pestec provided a bed bug prevention refresher training to the Concord Homeless Shelter and Calli House youth shelter staff. • In July 2016, the IPM Coordinator provided bed bug prevention trainings for both Adult Mental Health and Older Adult Mental Health staff. • In August 2016, the IPM Coordinator provided bed bug prevention trainings for the Behavioral Health safety coordinators and for a group of board and care owners and managers. • In October 2016, the IPM Coordinator provided a bed bug prevention talk for homeless care providers, worked with the City of Richmond to create a plan for managing bed bugs in their city, and talked to staff at 1650 Cavallo about preventing ant infestations. • In January 2017, the IPM Coordinator gave a presentation on bed bugs for a group home in Antioch. • In February 2017, the IPM Coordinator provided the IPM presentation for the Bay Friendly Landscaping training in Concord. • In February 2017, the IPM Coordinator gave a bed bug talk at a home for HIV patients in El Cerrito. • During the spring of 2017, the IPM Coordinator consulted on a project of the Alameda County Healthy Homes program to create a three-part online training series on IPM for landlords and property owners. • In May of 2017, the IPM Coordinator participated in a bed bug investigation of a motel in Richmond and helped to educate the owner about bed bug prevention. • In August, the IPM Coordinator gave a bed bug awareness presentation to WIC staff. • During the summer of 2017, the IPM Outreach subcommittee of the IPM Advisory Committee developed a short presentation on pest management in homes for County in-home visitors. The subcommittee has three presentations scheduled through the end of 2017, and will be contacting additional groups for presentations in the new year. <u>As of January 2018, the subcommittee had given 4 presentations which trained 112 in-home visitors about the risks of pests and pesticides in the home and explained prevention and control measures for common pests. The subcommittee has 8 more presentations scheduled as of January 2018.</u> • In August of 2017, the IPM Coordinator and Carlos Agurto from Pestec, the County's structural pest management contractor, provided a bed bug prevention training for Calli House Youth Shelter staff. <u>In September, the IPM Coordinator provided a bed bug prevention presentation for WIC staff. In January and March 2018, they Pestec and the IPM Coordinator will provide additional training for all</u>

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		<p>staff from all of the County shelters. They had provided this training in the past, but will now provide it at least annually to make sure new staff understand the threat, how to take precautions, and how to prevent infestations.</p>
	Violations of the Brown Act	
12/5/13-TWIC 3/2/15-TWIC 8/6/15-IPM 2/17/16-IPM	<p><i>From Parents for a Safer Environment (PfSE):</i></p> <p>"continued violations of the Brown Act including repeated disposal of original meeting minutes, repeated failure to provide public records at all or much later than 10 working day, and meeting minutes that do not accurately reflect comments made or not made by participants"</p> <p>"our county's IPM policy and the Public Records Act have been violated at least on a quarterly basis by staff since 2009." (3/2/15)</p> <p>"We are still waiting to learn where Fusilade II Turf and Ornamental herbicide had been applied by the Grounds Program in the past years" (8/6/15)</p>	<ul style="list-style-type: none"> • Staff always respond within 10 days to public records requests. In almost all cases staff respond within 1 to 3 days. The only reason for delay has been to find and collect documents that have been requested. • The County takes public records requests seriously and responds promptly to each one. • Hand written meeting minutes are recycled after official minutes have been typed up. Official minutes, once approved by the IPM Committee, are posted on the IPM website. • The IPM Committee approves the minutes for each meeting. The public is provided time to comment on the minutes, and as the IPM Committee sees fit, the minutes are corrected. • Staff are ready to respond to any specific instances or claims of Brown Act violations. Staff maintain written logs of all public records requests. • On July 8, 2015 Susan JunFish formally requested information about Fusilade use by the Grounds Division. On July 16, 2015 the IPM Coordinator provided her with a chart, created for her, showing how much and where Fusilade was used (0 used in FY 12-13 and FY 14-15 and 0.1 pound used once in a parking lot in FY 13-14).
	Financial incentives to serve on the IPM Committee/Conflict of interest on the IPM Committee	
12/5/13-TWIC 1/14/15 IPM 3/2/15-TWIC 2/17/16-IPM	<p><i>From Parents for a Safer Environment (PfSE):</i></p> <p>The County should "discourage financial incentives of [IPM Committee] applicants by providing a minimum of a 5 year moratorium for those who serve to be eligible for receiving a county contract or any funding"</p> <p>"In 2009, Michael Baefsky, a community representative of the IPM Advisory Committee received a contract with the former General Services Department according to a document from Terry Mann, former Deputy Director of the General Services Dept. After receiving that contract, Mr. Baefsky's behavior on the Committee changed significantly."</p>	<ul style="list-style-type: none"> • Staff disagree that there are any kinds of financial incentives to serve on the IPM Advisory Committee, but will defer to the Board of Supervisors on whether to impose such a moratorium. • If the public has evidence of financial incentives for serving on the IPM Committee, we request that they bring that evidence forward. • Michael Baefsky was not a member of the IPM Advisory Committee when he was asked to contract with General Services to advise the County on non-chemical methods to manage weeds on the Camino Tassajara medians in 2009. His contract ended in 2009. That year he attended meetings of the IPM Task Force, an informal body with no official appointees. The IPM Advisory Committee was not created until 2010, and he was appointed by the Board to an At-Large seat in 2010. He has held no contracts with the County since 2009. • The IPM Committee bylaws state the following in sections III.B.2&3: <ul style="list-style-type: none"> • "Contractors who provide pest management services to the County may not serve on the Committee. The exception is A.1.d., above, the Current Structural Pest Management Contractor with General Services Department. • "If a member's work status or residence changes, he/she must notify the Committee in writing, within thirty (30) days of their change in status. The Chair will review the change of status and determine if the member is still eligible for membership according to these by-laws. If they are found to be ineligible, the member will be asked to resign his/her position."

Date(s) Issue Raised to: TWIC = Transportation, Water & Infrastructure Committee IPM = IPM Committee or subcommittees IO=Internal Operations Committee	Issues Raised by the Public	Steps taken by the IPM Advisory Committee and County Staff from January 2009 to the present
Monetary compensation or gifts from pesticide salespeople		
12/5/13-TWIC 3/2/15-TWIC	<p><i>From Parents for a Safer Environment (PfSE):</i></p> <p>"We are requesting that TWIC require that all staff involved in ordering pesticides from salespersons fill out a form disclosing any monetary compensation or any other forms of gifts from pesticide salespersons"</p>	<ul style="list-style-type: none"> County staff do not receive (and have not been offered) gifts or compensation in any form from pesticide salespeople or any other salespeople. Accepting gifts or compensation would be against County policy⁵ and would subject staff and their departments to disciplinary action If the public has evidence of County staff taking bribes, we urge the public to provide that evidence for investigation.
IPM Committee did not accept all of Parents for a Safer Environment's priorities as their own		
2/12/14-TWIC 11/16/17-IPM 1/17/18-Email	<p><i>From Parents for a Safer Environment (PfSE):</i></p> <p>The IPM Committee is planning to include only 70% of PfSE's priorities as the Committee's priorities for 2014</p> <p>Taking PfSE's priorities into consideration (11/2017 & 1/2018)</p>	<ul style="list-style-type: none"> The IPM Committee devoted more than an entire meeting to the discussion of its work priorities for 2014. The public was fully involved in the discussion and PfSE provided documents and testimony detailing their own priorities. The Committee had a thorough discussion and then voted on which priorities to pursue. The IPM Committee continues to hear from PfSE about, and involve them in, setting priorities for the Committee (11/2017 and 1/2018).
IPM Coordinator references statements by members of Parents for a Safer Environment that were never made		
3/2/15	<p><i>From Parents for a Safer Environment (PfSE):</i></p> <p>"PfSE members also feel a lack of goodwill and collaboration when the IPM Coordinator references statements by members that were never made. For example, in the Response Table, it states that a PfSE member stated at the February 12, 2015 [sic] TWIC meeting that 'The IPM Committee</p>	<ul style="list-style-type: none"> In her written public comments to TWIC on February 12, 2014, Susan JunFish states: "We believe that the Committee is planning to address about 70% of the priority issues the community has raised, so we are hopeful. The two areas where there has been no plan to address are columns 4 and 5 of the table."

⁵ California Government Code § 1090 prevents county employees and officials from being "financially interested" in any contract made by them in their official capacity, or by anybody or board of which they are members.

California Government Code § 81000 et seq., known as the Political Reform Act, requires, among other things, that certain public employees perform their duties in an impartial manner, free from bias caused by their own financial interest. See Cal Gov Code § 81001(b). It also prevents certain employees from using their positions to influence county decisions in which they have a financial interest. See Cal Gov Code 87100. The Act also requires certain employees and officers to file a Form 700, Statement of Economic Interests (the CCC Agricultural Commissioner, the managers in Public Works and the IPM Coordinator fill out this form) See Cal Gov Code 89503.

CCC Administrative Bulletin 117.6, paragraph 6, can be read to prevent employees from accepting any gift which "is intended, or could reasonably considered as tending to influence business or applications pending before the Board of Supervisors."

Date(s) Issue Raised to: TWIC = Transportation, Water & Infrastructure Committee IPM = IPM Committee or subcommittees IO=Internal Operations Committee	Issues Raised by the Public	Steps taken by the IPM Advisory Committee and County Staff from January 2009 to the present
	<p>is planning to include only 70% of PfSE's priorities as the Committee's priorities for 2014.' We would be thrilled if this was the case..."</p>	
	The IPM Committee needs a non-voting facilitator	
2/12/14-TWIC 3/2/15-TWIC	<i>From Parents for a Safer Environment:</i> "an impartial, non-voting facilitator would make the meetings run smoother and become more viable"	<ul style="list-style-type: none"> • Staff believe that meetings are run effectively and efficiently. • The new IPM Committee chair has been very effective at running the 2014 and 2015 IPM Committee meetings and allowing the public ample opportunities to provide comment.
	Parents for a Safer Environment disagrees with responses to "unresolved" issues in the Triennial Review Report	
11/6/13-IPM 2/12/14-TWIC 3/5/14-IPM 3/2/15-TWIC	<i>From Parents for a Safer Environment:</i> Disagreement with the response by staff to "unresolved issues" in the Triennial Review Report for the IPM Advisory Committee	<ul style="list-style-type: none"> • The response in dispute refers to the question in Section VIII of the Triennial Review report to the Board of Supervisors from the IPM Committee: "The purpose of this section is to briefly describe any potential issues raised by advisory body members, stakeholders, or the general public that the advisory body has been unable to resolve." • The response given to this question in the report accurately reflects the response intended by the IPM Committee as agreed at their November 6, 2013 meeting. • The Triennial Review Report has been accepted by TWIC and the BOS, and the IPM Committee cannot go back and change the report. • The issue in question for the IPM Committee was whether to describe in Section VIII only issues that the Committee had been unable to resolve, or to also include a discussion of issues that PfSE felt were still unresolved. The Committee debated this and decided to also include a discussion of issues that PfSE felt were unresolved. However, it was completely clear from the discussion at the meeting that the Committee agreed that the issues described in this section (with the exception of the two that were noted as ongoing) had previously been given due consideration by the Committee, and that the Committee had addressed the issues. The Committee directed the IPM Coordinator to meet with the Committee Secretary to compile Committee and staff responses to the "unresolved" PfSE issues to include in the report and then to submit the report. • Note that in the IPM Committee's extensive planning sessions for 2014 work, the Committee did not identify any of the "unresolved" issues as priorities for 2014.