

August 12, 2011

Phil Isorena  
State Water Resources Control Board  
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pisorena@waterboards.ca.gov  
*sent via electronic mail*

**Re: Contra Costa County Pesticide Action Plan**

Dear Mr. Isorena:

Thank you for accepting the following comments submitted on behalf of San Francisco Baykeeper (“Baykeeper”) and our members. We are writing to express great concern over the proposed Contra Costa County Pesticide Action Plan (“PAP”) submitted concurrently with Contra Costa County’s Notice of Intent to discharge pesticides under the General NPDES Permit for Biological and Residual Pesticide Discharges from Vector Control Applications. If approved, the proposed PAP would significantly imperil the water quality, plants, wildlife, and overall quality of life in Contra Costa County and the San Francisco Bay. Contra Costa County’s creeks are already impaired by pesticide toxicity, contributing to the decline of numerous threatened and endangered species in its watershed. Despite this reality, the PAP presents a business-as-usual approach to applying pesticides in the County. Because of the inadequacy of nearly every element of the proposed PAP, as discussed in detail below, we ask the State Board to reject the County’s permit application until it resolves the application’s inadequacies.

**1. General Citation to “Best Management Practices for Mosquito Control in California” is Inadequate.**

The Vector General Permit (“VGP”) enumerates thirteen items that each permittee must discuss and analyze in their Pesticide Action Plan (“PAP”). *See* VGP at 16-18. In response to seven of these requirements, Contra Costa County’s PAP cites to the “Best Management Practices for Mosquito Control in California”<sup>1</sup> (hereafter “BMP Manual”), without any excerpt, pinpoint citation, or discussion of what information in the BMP Manual is responsive to the VGP’s required items. *See* PAP at ¶¶ 2, 4-5, 8-11. In doing so, Contra Costa County’s PAP violates the procedural and substantive requirements of the VGP, and must be revised before the State Board agrees to any pesticide applications.

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<sup>1</sup> Presumably, the PAP refers to the *Best Management Practices for Mosquito Control in California: Recommendations of the California Department of Public Health and the Mosquito and Vector Control Association of California*, August 2010, but this full title is not provided, nor is a copy of the Manual itself.

Substantively, Contra Costa County's generalized reliance on the BMP Manual fails to analyze and improve its pesticide application program. The thirteen PAP elements set forth in the VGP are designed to minimize pesticide applications and their related impacts by engaging in a rigorous analysis of a county's pesticide program. This program analysis aims to evaluate many important factors, such as when specific applications are and are not needed, what areas are environmentally sensitive to pesticide applications and should be protected, what alternatives exist, and how to best implement non-toxic and less toxic alternatives. However, the Contra Costa County PAP does not conduct this detailed analysis – it simply cites to the *existing* BMP Manual and other various regulations and agreements that govern its existing program. This does not constitute an analysis of program improvements, alternatives, or adverse impact minimization. *See, e.g., Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova* (2007) 40 Cal.4th 412 (“[I]nformation scattered here and there in . . . appendices or a report buried in an appendix, is not a substitute for a good faith reasoned analysis.”)

The principle justification for the VGP / PAP regulatory regime was to give each permittee the ability to flexibly tailor its program to the local environment in the most environmentally protective and appropriate manner, an approach that “allows dischargers to implement appropriate BMPs for different types of applications and different types of waters.” VGP at D-24. The Contra Costa County PAP, however, provides no specific information about what BMPs are appropriate for the different types of applications and different types of waters within its jurisdiction. Undifferentiated reliance on the statewide BMP Manual subverts the VGP's substantive goal. The BMP Manual itself recognizes the high variability between locations throughout the state, and therefore recommends that each local agency tailor its program to the local conditions on the ground:

Each property is unique, and the BMPs listed in this manual will apply to some properties, but not others. Landowners should implement universally applicable BMPs and after evaluating their own property, also employ the mosquito control BMPs that are applicable to their situation. BMP Manual at 1.

Mosquito breeding on rural properties is highly variable due to differences in location, terrain, and land use. BMP Manual at 6.

Local vector control agencies may have more specific policies regarding the implementation of BMPs and other control operations, which may include use of enforcement powers authorized by the California Health and Safety Code. BMP Manual, Executive Summary.

Since the Contra Costa County PAP fails to evaluate any of these local nuances and fails to rigorously analyze its own program in light of the stringent requirements of the new VGP, it must be revised.

In addition, general reliance on the BMP Manual does not satisfy the VGP because it requires PAPs to include technology based effluent limitations (“TBELs”) that are fully enforceable, and available for public review and comment. *See* VGP at 10 (“The effluent limitations contained in this General Permit are narrative and include requirements to develop and implement a PAP that

describes appropriate BMPs”); *Waterkeeper Alliance, Inc. v. EPA*, 399 F.3d 486 (2nd Cir. 2005). First, the VGP and the Clean Water Act require PAPs to have well-defined, concrete, enforceable TBELs. Contra Costa County’s PAP fails to include well-defined, concrete, and enforceable TBELs because the PAP relies on an outside document, and fails to include pinpoint citations and excerpts to enable an understanding of what the PAP specifically requires. This vagueness renders the PAP unenforceable, especially since such outside documents are subject to change during the term of the PAP, rendering the PAP’s TBELs unstable and capable of evading enforcement and public review.

Second, the PAP’s generalized citations to outside documents, such as the BMP Manual, fails to provide the public and regulators with a meaningful opportunity to comment on the PAP, instead forcing the public and regulators to go find and peruse, for example, the 60 page BMP Manual, to decide for themselves which portions, if any, are applicable to the PAP. This is an impractical task, and thwarts the public’s right to review and comment on the PAP.

## **2. PAP Item 1**

The PAP fails to provide a meaningful description of “ALL target areas . . . in to which larvicides and adulticides are being planned to be applied or may be applied to control vectors.” VGP at 16. Instead, the PAP refers to Appendix 1 – a map of all watersheds located in Contra Costa County that is not tailored to pesticide applications in any way. PAP at 1. As discussed in the comment above, this undifferentiated, broad response is insufficient to satisfy the purpose of the PAP, which is to provide the public and regulators with sufficient information to determine whether Contra Costa County’s program is appropriately tailored to the unique environmental conditions within its jurisdiction. For example, the PAP should, at a minimum, name all water bodies on a map where larvicides and adulticides may or will be applied. The PAP should also provide additional information about the target waters, including any Clean Water Act 303(d) impairment that must be considered before directly applying pesticides to the waterways, and the existence of any special status species that may be harmed by pesticide use.

## **3. PAP Item 2**

The PAP fails to include a “[d]iscussion of the factors influencing the decision to select pesticide applications for vector control,” and instead merely refers to the BMP Manual and the 2010 Contra Costa County MVCD Annual Environmental Audit. VGP at 16; PAP at 1. As explained above, mere citation is not a sufficient “discussion.” The PAP fails to provide any information about the factors influencing the County’s own decision to select pesticide applications, and a review of the cited BMP Manual<sup>2</sup> reveals no discussion of the factors influencing this decision. Since neither document is actually described, excerpted, or included as an attachment to the PAP, the public and regulators have no information on the factors that the District will supposedly apply to determine whether a pesticide application is appropriate.

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<sup>2</sup> The other cited document, the 2010 Contra Costa County MVCD Annual Environmental Audit, is referred to as Appendix 2, but the Audit is not actually attached to the PAP. Also, the Audit could not be found online, precluding review of the elusive factors. The most recent annual report on District’s website is from 2009. See [http://contracostamosquito.com/publications\\_annual\\_reports.htm](http://contracostamosquito.com/publications_annual_reports.htm) (last visited August 11, 2011).

Instead, the pertinent questions that should have been asked and answered, but were not, include, but are not limited to: (1) What factors are considered to make a determination that an insect population is a “pest” that may cause significant harm to public or environmental health, (2) what factors are considered to determine when mechanical or cultural controls are insufficient to reduce or contain the insect population to less than harmful levels for the general public and ecosystem, (3) what considerations are made for the health of the water body that will be impacted by an application, and (4) what are the human health impacts of the pesticide use? With regard to question 4, we note that one of the permitted larvicides, Agnique MMF, contains two Proposition 65 chemicals: 1,4 dioxane, which is a carcinogen, and ethylene oxide, which is linked to cancer and reproductive harm.

#### **4. PAP Item 4**

This Item requires a description of all “application areas and “target areas” and a map showing these areas. VGP at 16. In response, the PAP refers to a map of Contra Costa County provided in Appendix 1 of the PAP, but this map is illegible. *See* PAP at 1, Appendix 1. The PAP is a publically enforceable part of the VGP, but the illegible map precludes the public from knowing which application areas are planned on the map provided. Moreover, it is unclear whether this map does in fact include all of the application areas, including all ponds, creeks, marshes, and ditches, which is required by the plain language of the Permit, and which is necessary for meaningful public oversight. It is unlikely that the map includes these specific areas since it is described as a general map of the County’s 32 major watersheds. *See* PAP at Appendix 1. The Permit’s requirement obligates the County to provide a more detailed map that sufficiently shows all application and target areas in the system.

#### **5. PAP Item 5**

The PAP mentions two alternative methods for controlling mosquitoes without pesticide use that are the backbone of an integrated pest management approach: Elimination of standing water and stocking of mosquito fish. PAP at 2. However, the PAP fails to respond to the VGP’s requirement that the PAP discuss the “limitations” of specific control methods used by the District. VGP at 16. Identification of such limitations is required by the VGP because it is an essential step to *removing* additional barriers that may exist for non-pesticide vector controls. If the above two approaches used by the District are insufficient to provide adequate mosquito control, the PAP should describe the relevant “limitations.”

#### **6. PAP Item 6**

The VGP requires a discussion of “[h]ow much product is needed and how this amount was determined.” VGP at 16. In response, the PAP fails to specify how much pesticides are actually needed in any quantity. PAP at 2. This response is flawed because it completely ignores one of the Permit’s required elements.

In addition, the District’s response to Item 6 indicates that “surveillance” is the basis for determining the need to apply a pesticide product, but no details are given regarding the District’s surveillance and mosquito monitoring protocols or thresholds. PAP at 2. Instead, the

description of the surveillance and monitoring of mosquito populations should make clear how the District decides where and when to treat, and how the surveillance and monitoring supports the goal of determining where and when larvicides are needed and ensuring that last-resort chemical applications are only larvicides and the use of adulticides is avoided. The District should not simply be applying larvicides to all waterways in the County, as the PAP implies.

A good integrated pest management program for mosquitoes focuses first on prevention and cultural controls (e.g., eliminating standing water and using mosquito fish), and if those are insufficient, then focuses on using larvicides rather than adulticides. The use of larvicides generally is considered preferable to the use of adulticides because larvicides prevent the appearance of blood-feeding adults, provide up to a month of control, are typically less toxic, are typically applied to smaller areas, and are applied in a manner that results in less human exposure than is usually the case for adulticides.

The PAP should clearly explain the District's surveillance and mosquito monitoring protocols, the basis for deciding when and where chemical use is needed and avoiding chemical use and attendant impacts to the maximum extent possible, and the strategy to prioritize larviciding and avoid adulticiding.

#### **7. PAP Item 7**

The PAP fails to include any meaningful information on its monitoring program. PAP at 2. An empty reference to an outside document, the "MVCAC NPDES Coalition Monitoring Plan," is provided without any information germane to the monitoring locations and the justification for selecting these monitoring locations. Therefore, the proposed PAP is inadequate, incomplete, uncertain, and unenforceable. While group or coalition monitoring may be permitted by the VGP, such programs must provide monitoring data and procedures sufficient to determine the compliance of *each* permittee – there is not information necessary to make this determination included in the County's PAP.

#### **8. PAP Item 8**

The PAP fails to provide the required "[e]valuation of available BMPs to determine if there are feasible alternatives to the selected pesticide application project that could reduce potential water quality impacts." VGP at 16. This Item is essential to reducing or avoiding adverse water quality impacts. As the VGP states, pesticide discharges to waters are "necessary only when no feasible alternative to the discharge (alternative application techniques, etc) is available and the discharge is limited to that increment of waste that remains after implementation of all reasonable alternatives for avoidance is employed" (VGP at D-15), and further states that "[d]ischargers are required to determine and implement feasible non-toxic and least toxic alternatives to the selected pesticide application project that could reduce potential water quality impacts" (VGP at D-25). The proposed Contra Costa County PAP, however, fails to provide *any* evaluation of its own management practices sufficient to prove that pesticide discharges to waters will only occur when no avoidance or less toxic alternative is feasible. Instead, the PAP merely cites to the BMP Manual and Appendix 2, which does not exist. A quick review of the

cited BMP Manual also failed to turn up any such analysis, and the Manual does not include any analysis of Contra Costa County's program.

## **9. PAP Item 9**

One of the VGP's many requirements is that permittees use "measures to ensure that only a minimum and consistent amount" of pesticides are used. VGP at 16. In response, the PAP merely states that the County will follow Department of Pesticide Regulation ("DPR") and California Department of Public Health ("CDPH") regulations, but fails to perform any analysis of, or provide any information showing that, such regulations requiring calibration annually actually result in an absolute minimum and consistent amount of pesticides being applied. In fact, neither DPR nor CDPH evaluate pesticide applications to ensure protection of adopted water quality standards special status species. *See, e.g., National Cotton Council of America v. U.S. EPA* 553 F.3d 927 (6th Cir. 2009). The VGP requirement should be read not only to apply to equipment functionality, but also to whether the applicator has chosen a management approach that "ensure that only a minimum and consistent amount is used." VGP at 16.

In addition, the PAP fails to provide any meaningful information on the "specific BMPs for each type of environmental setting" within the County that will be considered for pesticide application. VGP at 17; PAP at 3. This is a crucial element for each *individual discharger* to implement under the general statewide permit due to the wide variety of environmental settings throughout the state. At a minimum, the PAP, in this section or elsewhere, must include a list of all water bodies with impaired beneficial uses in its jurisdiction and all water bodies containing sensitive or special status species.

## **10. PAP Item 10**

The PAP fails to describe how Contra Costa County will annually "establish densities for larval and adult vector populations to serve as action threshold(s) for implementing pest management strategies," as required by the VGP. VGP at 17. Instead, the PAP states that the presence of *any* mosquito may necessitate treatment, providing the County with an inappropriate permit to discharge pesticides under any circumstances, whether or not objective criteria have been followed to identify a problem. PAP at 3. While the PAP does list some factors that the District may consider to establish a higher treatment threshold, the PAP provides inadequate information to understand how those criteria will be used to establish treatment thresholds, evaluate what treatment thresholds have already been established, and whether those treatment thresholds are appropriate and protective of water quality. The information in this section is unenforceable as a TBEL.

In addition, the PAP must provide specific information on "known breeding areas for source reduction, larval control program, and habitat management," as required by the VGP. VGP at 17. The PAP notes that any site that may hold water for more than 96 hours may be targeted. PAP at 4. However, such a general statement does not "identify known breeding areas" as the permit requires, fails to advance the purpose of providing public analysis to advance the reduction of pesticides to waterways, and is unenforceable.

## **11. PAP Item 11**

The PAP fails to examine alternatives to pesticide use as required by the VGP. VGP at 17. First, the PAP fails to describe how the permittee will evaluate the no action alternative, which is required by the VGP. PAP at 4-5. Second, although the PAP lists five “commonly considered alternatives,” such as the elimination of artificial sources of standing water and the use of biological control methods, the PAP does not evaluate these non-pesticide alternatives for their effectiveness and impacts on water quality or non-target organisms. PAP at 4-5.

Further, the PAP should consider other strategies to minimize the need for treatment and to minimize pesticide exposure, such as 1) systematic surveillance and monitoring to determine when larviciding is necessary and 2) the establishment of an opt-out registry that allows property owners to prepare non-chemical mosquito management plans for their property. The latter option would protect organic gardeners and others who wish to avoid pesticide exposure.

The PAP also inappropriately cites the “availability of agency resources, cooperation with stakeholders, [and] coordination with other regulatory agencies” as reasons why an alternative to pesticide treatment may not be implemented. PAPA at 5. These are inappropriate considerations under the VGP – they are unduly vague and render the TBELs in the PAP unenforceable because it leaves discretion to the discharger to cite agency or stakeholder cooperation as a limiting factor. The purpose of the PAP is to set forth enforceable technological BMPs to minimize and avoid pesticide impacts to waters.

Last, the PAP simply rejects the VGP’s proposed alternative that pesticides only be applied when vectors constitute a nuisance. Again, the PAP generally cites to two plans that are not discussed in the PAP itself, thereby providing no public analysis, and are impermissibly unenforceable. The PAP does state that, “[i]n practice, the definition of a ‘nuisance’ is generally only part of a decision to apply pesticides,” and that the discharger may instead consider “the overall risk to the public.” PAP at 5. This is overly vague, and does not constitute a meaningful analysis of whether Contra Costa County could only apply pesticides when insects constitute a nuisance, as required by the VGP.

## **12. PAP Item 12**

The PAP does not “ensure that all reasonable precautions are taken to minimize the impacts caused by pesticide applications,” such as “taking account of weather conditions and the need to protect the environment.” VGP at 18. Instead, the PAP generally states that “[t]his is an existing practice” of the County and is required by other regulations and agreements. PAP at 6. This response provides no analysis of the problem at all, and is completely unenforceable because it lacks any operational details.

## **13. PAP Item 13**

The VGP asks for “a website where public notices . . . may be found,” and the PAP lists [www.mosquitoes.org](http://www.mosquitoes.org). VGP at 18; PAP at 6. However, a quick review of the website provided failed to reveal any public notice of potential or planned applications.

**14. Conclusion**

Thank you for your careful consideration of these comments. We hope that the State Board will require a revised PAP that will provide the public with a better opportunity to determine whether the PAP will advance the VGP's goals of avoiding and reducing toxic pesticide applications to waterways wherever possible.

Sincerely,

/s/ Jason Flanders

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/s/ Abigail Blodgett

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