



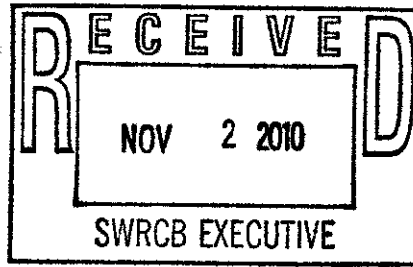
MVCAC

Public Hearing (10/19/10)
Vector Control Permit
Deadline: 11/2/10 by 12 noon

Mosquito and Vector Control
Association of California

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November 2, 2010



Jeanine Townsend, Clerk of the Board
State Water Resources Control Board
1001 I Street, 24th Floor
Sacramento, Ca 95814

RE: Comment Letter on Draft Vector Control Permit

Dear Ms. Townsend:

Thank you for the opportunity to provide comments regarding the General NPDES Permit for Residual Pesticide Discharges from Vector Control Applications ("Permit"). We appreciate the time that the SWRCB staff and board members have taken to meet with Mosquito and Vector Control Association of California (MVCAC) members in order to better understand vector control practices. We provide these comments in the spirit of developing a permit that will meet the current legal requirements and yet still allow public health agencies to perform the work necessary to protect public health from vector-borne diseases.

In addition to the more detailed general and specific comments attached, there are three key issues highlighted in this letter:

1. In the more than 30 years that United States Environmental Protection Agency ("USEPA") has administered the Clean Water Act, USEPA has never issued an NPDES permit for the application of a pesticide to target a pest that is present in or over, including near, the water where such application results in a discharge to waters of the U.S. Instead, EPA has been regulating these types of applications through the Federal Insecticide, Fungicide, and Rodenticide Act ("FIFRA").

Although we respect the ruling of the 6th Circuit Court of Appeals (*National Cotton Council v USEPA*), it is our contention that the use of public health pesticides do not present an imminent and substantial danger to the public health or welfare, including, but not limited to, fish, shellfish, wildlife, shorelines and beaches and in fact, any encumbrance of the use of public health pesticides to control mosquitoes may present an imminent and substantial danger to public health and wildlife that potentially could be exposed to mosquito borne diseases.

Despite our differences with the ruling, we believe the USEPA General Permit fully and effectively addresses these issues, and the Court ruling, and is consistent with the practice of protecting public health. We suggest the State of California follow the USEPA permit for the first five years.

2. The General NPDES Permit for Residual Pesticide Discharges from Vector Control Applications ("Permit") currently in its draft form has included water quality monitoring for applications made by vector control agencies. The monitoring plan is expressed in Attachment C of the draft permit and includes water chemistry analysis and toxicity testing for those products used by vector control agencies. MVCAC recognizes that the USEPA General permit references that some larger entities may be required to perform ambient water quality monitoring. MVCAC is committed to the protection of the state's water and is willing to investigate the impacts of our applications to water.

The purpose of the SWRCB permit for vector control applications is designed to gather data on products for which no water quality objectives exist due to lack of adequate data. Neither the USEPA nor the SWRCB has established water quality objectives/standards for the constituents that are currently being used for vector control except for malathion. In the absence of these water quality standards, the SWRCB staff has included Receiving Water Monitoring Triggers based on use of a large safety factor with the existing limited data.

MVCAC has provided the SWRCB staff documentation that demonstrates the Receiving Water Monitoring Triggers are likely to be exceeded for a limited period after application of pesticides by vector control districts for the protection of public health done under all applicable labels and regulations. The inclusion of existing draft language in the permit will give the impression to the general public that applications for public health are in violation of the NPDES permit requirements and therefore are polluting the State of California waterways.

The description and use of Receiving Water Monitoring Triggers in this draft is confusing and not consistent with previous working group discussions. This draft incorrectly suggests that monitoring triggers equate to toxic concentrations of pesticide residues and evidence of non-compliance with permit conditions. It was widely understood during working group meetings with SWRCB that triggers were not to be indicative of non-compliance or result in corrective actions. Furthermore, SWRCB was apprised early in the process that various data (published and non-published) suggest vector control applications will likely exceed these conservative monitoring triggers.

Receiving Water Monitoring Triggers were understood to be used to initiate additional investigations in order to determine if the narrative toxicity objective is met. Monitoring triggers are very conservative indicators of toxic concentrations (10 times less than the lowest concentration that affects the most sensitive species) and exceedance of a trigger concentration is not necessarily indicative of toxicity, or a cause for corrective action. Instead, exceedance of triggers was understood to initiate additional, specific toxicity tests. This was the original understanding during discussions with SWRCB. Subsequent to this understanding, the USEPA regional rep strongly advocated for concomitant chemistry and toxicity tests. If these tests are done simultaneously, then there would be no need for monitoring triggers, and any additional control measures or limitations should be based on the toxicity findings.

Linking exceedance of Receiving Water Monitoring Triggers to corrective actions is unjustifiable, not previously discussed, and creates the appearance of non-compliance to the permit for any public health program using these pesticides.

If monitoring triggers remain in this permit, there should be specific language that states exceedance does not mean or imply non-compliance with permit conditions. Monitoring triggers only indicate a need for additional investigations to determine if toxicity is associated with vector control applications.

3. The MVCAC encourages the SWRCB to remove the requirement of Background Toxicity Monitoring as the results of this information would be extraneous. If Post Event Monitoring toxicity test results suggest vector control applications may have caused or contributed to toxicity, then additional investigations could be warranted and there is no need to evaluate the Background toxicity results.

Attached to this letter is a table of additional comments provided for clarification and to facilitate modifications to the proposed permit. The comments are organized by page number and section number, and contain both general and specific comments.

Again, thank you for the opportunity to provide comments regarding the General NPDES Permit for Residual Pesticide Discharges from Vector Control Applications. We look forward to working with the State Board on developing a permit that will enable mosquito control districts to continue to perform their work without undue and unnecessary regulations.

Sincerely,



Catherine Smith
Executive Director

GG/cas

**MVCAC Comments for the Draft
General NPDES Permit for Residual Pesticide
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No.	Page/Section	Comment
1	General Comment	The fundamental argument still stands that we should be subject to the USEPA Permit criteria and that what CA has come up with is overreaching and burdensome, especially with respect to water quality monitoring requirements. [See also comment #13]
2	General Comment	The SWRCB has limited the amount of products available to Mosquito Control Districts. The role of the SWRCB should be one that regulates products but does not sanction or promote specific products over others. Mosquito Control Districts role in the protection of public health has to include the use of products that best fit the situation based on a number of factors. The SWRCB does not have the expertise to drive these practices and therefore should include all products that are currently registered for use in California. The SWRCB staff based on a lack of a state budget and diminishing time has not had the opportunity to review all products labeled for mosquito control. The decision to apply pesticides for the protection of public health should be made by the experts that are tasked with the responsibility. There are a number of factors that go into the final decision on the products to be used and limiting the choices is irresponsible. This decision also creates the possibility of increasing the price for the "approved" products and severely limiting the financial decisions of vector control districts. Vector Control does not have the funding of Agriculture and therefore does not have the same opportunity for the development of new and emerging products. We need to keep all of our options and cannot have products removed from use based on a lack of time.
3	General Comment	In general the monitoring triggers are set at thresholds we know we can not adhere to and this is very concerning due to the public perception and threat of civil liability. There needs to be some more convincing justification for the LC50/10 convention other than "because that is what Region 5 did." It is simply not justification enough. [See also comment #22, 27, 29-30, 59-61, 63, 100, and 110]
4	General Comment	It is still not clear if Coalition Members will need to submit a PAP for sites treated with adulticide within their jurisdiction. C-6 B. & D-14 B.2 & D-26 seems to imply that the State Regional Water Quality Board determines a PAP is only necessary for Coalition sites answering the two main questions, but pg. D-26 implies that the regional water board can determine if a PAP from other sites outside of the Coalition is necessary. [See also comment #33, 74-76, and 83]
5	General Comment	Will every discharger need to submit an annual report? OR for the next five years are annual reports only to contain data from the Coalition sites? [See also comment #91]
6	General Comment	In general why did the State Board decide to prioritize malathion & naled for monitoring? Although these are the most toxic materials, they are not frequently used by vector control in So Cal.

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No.	Page/Section	Comment
7	General Comment	<p>Residual pesticides and pesticide residues are two different things and should not be confused. Residual pesticides are applied for longer lasting control - up to several months in certain cases. Pesticide residues indicate the mass of pesticide present after it has performed its intended function.</p> <p>Are adulticides defined as residual pesticides? How, then, would they differentiate applications of residual barriers from ULV? The verbiage as it now appears is too inclusive and unfairly characterizes adulticides as residuals. There may, indeed, be some ephemeral remaining chemical properties to ULV applications, but they hardly qualify for the term "residual" in comparison with barriers.</p> <p>[See also comment #9 and 66]</p>
8	General Comment	<p>In several areas of the permit this statement is made in whole or in part, "This General Permit regulates residual pesticides which are breakdown products or other pesticide ingredients that are present after the use of the pesticide for vector control. In larvicide applications, pesticides are applied directly to the water body and/or to vector larvae in the water or on the water surface and are not considered pollutants until some time after actual discharge. In adulticide applications, any pesticide product or its breakdown by-product that is deposited in waters of the US is a pollutant. However, at what point the pesticide becomes a residue is not precisely known and varies depending on the type of spray system, wind speed and direction, temperature, droplet size distribution, droplet drift, water chemistry, etc. Therefore, in the application of pesticides, the exact effluent is unknown"</p> <p>Who bears the burden of proving any operation by a vector control district requires this permit? How would anyone provide such proof?</p>

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No.	Page/Section	Permit Language Referenced	Comment
9	<p>pg. 4, 1st paragraph (Section J) and pg. 4, 2nd paragraph (Section J) and pg. 5, 1st paragraph (Section II, B) and pg. 10, 7th paragraph (Section III, H)</p>	<p><i>Pesticide residues resulting from mosquito control applications directly or indirectly discharged into surface waters...</i></p> <p><i>Pesticide residues that occur in the discharge of residual pesticides to waters of the US from larvicide* and adulticide* applications for vector control...</i></p> <p>A Discharger under this General Permit is any entity involved in the application of vector control pesticides that results in a discharge of pesticide residues residuals to waters of the US...</p> <p>Since information regarding <i>pesticide residue residual pesticides</i> deposited in the receiving water as a result of larvicide and adulticide applications for vector control is not adequate to develop receiving water limitations for individual and combinations of pesticides, this General Permit only contains receiving water monitoring triggers for <i>pesticide residues residual pesticides</i> of concern</p>	<p>See inserts and deletions. [See also General Comment #7]</p>
10	<p>pg. 5, 8th paragraph (Section II, C)</p>	<p>State and Regional Water Board staff will review the application package for completeness and applicability under this General Permit.</p>	<p>Why will both the State Board and the Regional Boards be reviewing a permit application? Does it need to be sent to both? This was only to be reviewed by the Regional Boards in the last version of the permit. It will prolong and complicate the turn around time for issuance of the permit, potentially. It is also noted that the language for a separate annual fee for each region has been pulled out. Looks like State Board, instead of Regional Boards, will administrate much of the permit issuance which has changed since last version. If a Statewide Coalition is to be implemented, it would make most sense for the SWRCB to oversee permit compliance rather than the Regional Boards. [See also comment #56]</p>

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No.	Page/Section	Permit Language Referenced	Comment
11	pg. 5, 12 th paragraph (Section II, C)	Permit coverage will be effective when all of the following have occurred... The State Water Board Deputy Director of the Division of Water Quality has issued a Notice of Applicability (NOA). The NOA will specify the type(s) of pesticides that may be used and any specific conditions and requirements not stated in this General Permit. Any such specific conditions and requirements shall be enforceable. The Discharger is authorized to discharge starting on the date of the NOA.	Question remains how will the Statewide Coalition work if every local water board can make their own requests?
12	pg. 7, 4 th paragraph (Section III, A.5)	This General Permit was drafted with input from members of the Mosquito and Vector Control Association of California (MVCAC), representatives of the Department of Pesticide Regulation (DPR), California Department of Public Health (CDPH), USEPA Headquarters, and USEPA Region 9.	The description and use of receiving water monitoring triggers in this draft is confusing and not consistent with previous working group discussions. It was widely understood during working group meetings with SWRCB that monitoring triggers were not to be indicative of non-compliance or result in corrective actions. Monitoring triggers were understood to be used to initiate additional investigations in order to determine if the narrative toxicity objective is met. Furthermore, SWRCB was apprised early in the draft process that various data (published and non-published) suggests vector control applications will likely exceed these conservative monitoring triggers. Linking exceedance of monitoring triggers to corrective actions is unjustifiable, not previously discussed, and creates the appearance of non-compliance to the permit for any public health program using these pesticides.

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No.	Page/Section	Permit Language Referenced	Comment
13	pg. 7, 5 th paragraph (Section III, B)	This General Permit is issued pursuant to section 402 of the federal CWA and implementing regulations adopted by the USEPA and chapter 5.5, division 7 of the California Water Code (commencing with section 13370). Section 122.28(a)(1) of Title 40 of the Code of Federal Regulations [40 C.F.R. §122.28(a)(1)] allows NPDES permits to be written to cover a category of discharges within the State political boundaries as a general NPDES permit. USEPA Region 9 has granted the State Water Board the authority to issue general NPDES permits.	Sections of Porter-Cologne Water Quality Control Act seem to suggest intent of the California Legislature to exempt certain pesticides from NPDES requirements in California. For example, "Hazardous substance" does not include <i>any pesticide which is applied for agricultural purposes or is applied in accordance with a cooperative agreement authorized by Section 116180 of the Health and Safety Code, and is not discharged accidentally or for purposes of disposal, the application of which is in compliance with all applicable state and federal laws and regulation.</i> (§ 13050, ital. added). This suggests the State legislature recognized the importance of allowing public health agencies to do their job without the burden of being identified as releasing "hazardous substances" into the environment. Further, we believe the State of California should seek clarification from the Administrator as to whether the release of public health pesticides are hazardous substances as defined, pursuant to Section 311 (a) (1) of the CWA. It is our contention that the use of public health pesticides do not present an "imminent and substantial danger to the public health or welfare, including, but not limited to, fish, shellfish, wildlife, shorelines, and beaches" and in fact, any encumbrance of the use of public health pesticides to control mosquitoes may present an imminent and substantial danger to public health and wildlife potentially exposed to mosquito-borne zoonoses. We believe the USEPA General permit fully and effectively addresses these issues and is consistent with the practice of protecting public health. We recommend the State Board consider adopting the USEPA proposed General Permit.
14	pg. 7, 6 th paragraph (Section III, B)	This General Permit shall serve as a General NPDES permit for point source discharges of residual pesticides to waters of the US from larvicide and adulticide applications for vector control.	Does this mean that this permit does not address discharges of biological pesticides, which were defined as pollutants pursuant to the 6th Circuit Court of Appeals? Editorializing! We could say the same in reverse "CWA is not necessarily as protective of human health as FIFRA (putting Mysid mortality above risks to human health)". Neither statement applicable in an NPDES permit?
15	pg. 8, 5 th paragraph (Section III, E.1)	However, FIFRA is not necessarily as protective of water quality as the CWA.	Editorializing! We could say the same in reverse "CWA is not necessarily as protective of human health as FIFRA (putting Mysid mortality above risks to human health)". Neither statement applicable in an NPDES permit?

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No.	Page/Section	Permit Language Referenced	Comment
16	pg. 10, 1 st and 2 nd paragraph (Section III, G, Item 1)	<p>The State Water Board finds that numeric effluent limits for pollutant discharges associated with the application of pesticides are infeasible because...</p> <p>1. This General Permit regulates residual pesticides which are pesticide ingredients or breakdown products that are present after the use of the pesticide for vector control. Therefore, the exact effluent is unknown</p>	<p>Please identify the breakdown products for the insecticides listed in table 3, Receiving Water monitoring Triggers. This could be inserted under the discussion of each individual insecticide or added to this table. Be aware that many breakdown products are associated with multiple registered products. In the case of Naled, one breakdown product is DDVP which is the active ingredient for Vapona.</p>
17	pg. 10, 3 rd and 4 th paragraphs (Section III, G, Items 2-3)	<p>2. It would be impracticable to provide effective treatment, given the numerous short duration intermittent pesticide releases to waters of the US from many different locations; and</p> <p>3. Treatment may render the pesticides useless for pest control.</p>	<p>Need to make clear that "treatment" refers to treatment of effluent to reduce concentrations. Language is confusing, as the term "treatment" can be interpreted as a mosquito control application.</p> <p>[See also comment #99]</p>
18	pg. 10, 5 th and 6 th paragraphs (Section III, G) and pg. 13, 5 th paragraph (Section V, B)	<p>The effluent limitations contained in this General Permit are narrative and include requirements to develop and implement a PAP that describes appropriate BMPs, including compliance with all pesticide label instructions, as well as requirements to comply with receiving water limitations.</p> <p>The BMPs required herein constitute Best Available Technology Economically Achievable (BAT) and Best Conventional Pollutant Control Technology (BCT) and are intended to: 1) minimize the area and duration of impacts caused by the discharge of pesticides in the target area and 2) allow for restoration of water quality and protection of beneficial uses of the receiving waters to pre-application quality following completion of an application event.</p> <p>...</p> <p>Dischargers shall implement BMPs when applying pesticides.</p>	<p>Dischargers already use BMPs and shall continue to do so.</p> <p>The use of appropriate BMP's has been performed for years by mosquito control districts in California. Restating them is a duplication of already existing practices endorsed through training and adoption of a cooperative agreement with the Department of Pesticide Regulation and the reference of these BMPs should satisfy the requirement of the narrative water quality standards.</p>
19	pg. 10, 7 th paragraph (Section III, H)	<p>Dischargers shall implement BMPs when applying pesticides.</p> <p>... in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life <i>except for mosquitoes and other target species.</i></p>	<p>See insert.</p>

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No.	Page/Section	Permit Language Referenced	Comment
20	pg. 10, 7 th paragraph (Section III, H)	The monitoring triggers will be used to assess compliance with the narrative toxicity receiving water limitation and initiate additional investigations for the toxicity caused by the larvicides and adulticides used and their additive or synergistic effects.	Monitoring triggers were understood to be used to initiate additional investigations in order to determine if the narrative toxicity objective is met. Exceedance of triggers was understood to initiate additional, specific toxicity tests. (This was the original understanding during discussions with SWRCB. Subsequent to this understanding, the USEPA regional rep strongly advocated for concomitant chemistry and toxicity tests. If these tests are done simultaneously, then there would be no need for monitoring triggers, and any additional control measures or limitations should be based on the toxicity findings.) If these toxicity tests indicated vector control applications caused or significantly contributed to toxicity, then additional control measures could be added.
21	pg. 10, 7 th paragraph (Section III, H)	The monitoring triggers will be used to assess compliance with the narrative toxicity receiving water limitation and initiate additional investigations for the toxicity caused by the larvicides and adulticides used and their additive or synergistic effects.	How do these triggers "assess compliance", when exceeding them does not violate the conditions of the permit, but rather "initiate additional investigation"? What happens if the pre-treatment sample already shows concentrations of a particular AI just below monitoring trigger level and material deposition during treatment is just enough to push the total AI concentrations past the trigger level? Will we be held accountable for the entire amount or only for our contribution? What if the pre-treatment sample AI levels are already above trigger level?

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No.	Page/Section	Permit Language Referenced	Comment
22	Pg. 10, 7 th paragraph (Section III, H)	<p>The monitoring triggers will be used to assess compliance with the narrative toxicity-receiving water limitation and initiate additional investigations for the toxicity caused by the larvicides and adulticides used and their additive or synergistic effects. If monitoring data for residual pesticides of concern indicates that concentrations of these residual pesticides exceed the monitoring triggers, additional investigations may be required to assess compliance with the narrative toxicity receiving water limitation. If pesticide residuals associated with vector control are found not to be in compliance with the narrative toxicity standard, this General Permit may be re-opened and Receiving Water Limitations for these pesticide ingredients could be added.</p>	<p>This seems to be a contradiction in terms. Residual pesticides will likely exceed the monitoring triggers given the very low values (LC50/10) presented and the operational requirements of public health agencies (which use very low doses to control adult mosquitoes). What receiving water limitations could be devised that would remain consistent with the State Water Board's findings that suggest "numeric effluent limits for pollutant discharges associated with the applications of pesticides are infeasible"?</p> <p>This draft incorrectly suggests that monitoring triggers equate to toxic concentrations of pesticide residues and evidence of non-compliance with permit conditions. There should be specific language that states exceedance does not mean or imply non-compliance with permit conditions. Monitoring triggers only indicate a need for additional investigations to determine if toxicity is associated with vector control applications.</p> <p>See inserts and deletions for suggested changes to language in the permit.</p>

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No.	Page/Section	Permit Language Referenced	Comment
23	pg. 10, 7 th paragraph (Section III, H)	If monitoring data for residual pesticides of concern indicate that concentrations of these residual pesticides exceed the monitoring trigger, this General Permit may be re-opened and Receiving Water Limitations for these pesticide ingredients could be added.	<p>The Federal Permit produced by EPA states specifically that numeric limitations are infeasible:</p> <ul style="list-style-type: none"> - The point in time for which a numeric effluent limitation would apply is not easily determinable. For discharges from the application of pesticides, the discharges can be highly intermittent with those discharges not practically separable from the pesticide application itself. For example, the discharge from the application of a chemical pesticide to a water of the U.S. is represented by the residual remaining in the ambient water after the pesticide is no longer serving its intended purpose (i.e., acting as a pesticide against targeted pests in the applied medium). Chemical pesticides applied directly to water are not considered pollutants until some time after actual discharge at which point the pesticides will have performed their intended function for pest control, dissipated in the waterbody, and broken down into other compounds to some extent, etc. This discharge also will have combined with any other discharges to that waterbody (be it from other point sources, non-point source runoff, air deposition, etc). Given this situation, it is not clear what would be measured for a numeric limit or when. - For discharges from the application of pesticides, there are often many short duration, highly variable, pesticide discharges to surface waters from many different locations for which it would be difficult to establish a numeric limitation at each location. - The precise location for which a numeric effluent limitation would apply is not clear. - Information needed to develop numeric effluent limitations is not available at this time. <p>EPA continues to study the efficacy of various types of pollution prevention measures and BMPs; however, for this permit numeric limitations are not feasible.</p>

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No.	Page/Section	Permit Language Referenced	Comment
24	pg. 13, 2 nd paragraph (Section IV, B)	The discharge of residual pesticides shall not create a nuisance as defined in section 13050 of the California Water Code.	"Nuisance" means anything which meets all of the following requirements: (1) Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property; (2) Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal; and (3) Occurs during, or as a result of, the treatment or disposal of wastes. How would vector control pesticide applications qualify under this third condition? There is a concern that the term "nuisance" will be used by anyone with issues about pesticide "spraying" and could potentially claim offense, objection, etc.
25	pg. 13, 13 th paragraph (Section VI, G)	The discharge shall not result in any of the following... Esthetically undesirable discoloration.	Application of GB 1111 and similar products is likely to result in aesthetic changes. Who makes the call? What criteria will be used to determine whether this standard is met?
26	pg. 14, 1 st paragraph (Section VI, H)	The discharge shall not result in any of the following... Aquatic communities and populations, including vertebrates, invertebrates, and plant species to be degraded, except for target species.	What does "degraded" mean? MVCAC knows we may have an ephemeral impact on non-target species within the chironomid genera... by definition, does this mean the aquatic community has been "degraded"?
27	pg. 14, 2 nd paragraph (Section VII)	The Receiving Water Monitoring Triggers shown in Table 3 below will may be used to assess compliance with the narrative toxicity receiving water limitation and trigger additional investigations for the toxicity caused by the larvicides and adulticides used and their additive or synergistic effects.	See insert and deletions.
28	pg. 14, 2 nd paragraph (Section VII)	Table 3. Receiving Water Monitoring Triggers	How do we differentiate beneficial/intentional applications of ingredients with unknown residual from the point where there is no longer a mosquito control effect?

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No.	Page/Section	Permit Language Referenced	Comment
29	pg. 14, 2 nd paragraph (Section VII)	Table 3. Receiving Water Monitoring Triggers	Data presented in 2005 from SYMVCD suggest that the triggers established may be exceeded when responding to a public health emergency. What will the response be from the SWRCB in these instances? The District has twice received awards for IPM innovation and is recognized as fully implementing BMP's. In addition, work done by Weston suggested the increased load by the District was very small and ephemeral. Based on this evidence, what is the expected response by the SWRCB when the triggers listed in Table 3 are "routinely" exceeded when conducting a public health response?
30	pg. 14, 2 nd paragraph (Section VII)	Table 3. Receiving Water Monitoring Triggers, Temephos	The trigger listed for Temephos at 8 parts per billion will be reached in virtually all applications. This product is a larvicide and applied to water. For example, if Abate 2-BG were applied to a wildlife refuge pond at the lowest listed application rate of .05 Lbs. a.i./acre the trigger would be exceeded by more than 100%. This calculation assumes a flood depth of one foot and an even distribution of Temephos in the water column.
31	pg. 15, 2 nd paragraph (Section VIII, B)	Every calendar year, prior to the first application of pesticides, the Discharger shall notify potentially affected governmental agencies.	The requirement to notify affected governmental agencies "every calendar year" prior to the first application of pesticides is excessive. This notification should only be required upon initial issuance of the permit and at each renewal. Additionally, since most vector programs make treatments with larvicides year round, for clarification, when should this notification be done, every January 1 after the initial notice upon issuance of the permit?
32	pg. 15, 2 nd paragraph (Section VIII, B.5)	The notification shall include the following information... Any water use restrictions or precautions during treatment	The water use restrictions listed on the FIFRA label should be sufficient to meet this requirement. If not, what other restrictions will be required?
33	pg. 15, 9 th paragraph (Section VIII, C.1)	The Discharger shall develop a PAP that contains the following elements...	It is unclear whether or not the Pesticide Application Plan (PAP) is to address the sites being tested as part of the study that the Statewide Monitoring Coalition is testing or it is to detail every site that that each vector program treats. If the latter is the intent then does this include both larvicide and adulticide treatment sites or only sites that are adulticided. Items 1a, 1d., and 1f, appear require the most site specific treatment details and some clarification on what is expected is needed. Is it appropriate to generalize, offer general information with assumptions?

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No.	Page/Section	Permit Language Referenced	Comment
34	pg. 15, 11 th paragraph (Section VIII, C.1.b)	Discussion of the factors influencing the decision to select pesticide applications for mosquito control	This statement is unclear.
35	pg. 16, 3 rd paragraph (Section VIII, C.2)	The Discharger shall update the PAP periodically and submit the revised PAP to the State Water Board for approval if there are any changes to the original PAP.	Add the following language: <i>The PAP also shall include a Discharger-prepared individual monitoring and reporting plan or an election to participate in a Coalition plan. The monitoring and reporting plan shall be considered part of the PAP.</i>
36	pg. 16, 5 th paragraph (Section VIII, D.1)	Prior to first pesticide application covered under this General Permit that will result in a discharge of residual pesticides to waters of the US, and at least once each calendar year thereafter prior to the first pesticide application for that calendar year, the Discharger must do the following for each vector management area...	In this section for items a.-d, it is not clear if or how this information is to be documented for or reported to the Water Board. In addition, "vector management area" is not defined.
37	pg. 16, 6 th paragraph (Section VIII, D.1.a)	Establish densities for larval and adult vector populations to serve as action threshold(s) for implementing pest management strategies	Larval densities and adult densities are to be established. Historically they have been different throughout California based on proximity to populations and resources to control the various life stages of the mosquito. For example, larval populations in a wetland near an urban area may be ignored until they emerge based on the lack of resources of the local vector control agency to use larvicides. It is unclear at what level of resolution these thresholds are to be established for each BMP: treatment area, vector management area, individual district, watershed, or state-wide.
38	pg. 16, 7 th paragraph (Section VIII, D.1.b)	Identify target vector species to develop species-specific pest management strategies based on developmental and behavioral considerations for each species	What does "species-specific pest management strategies" mean?
39	pg. 16, 7 th paragraph (Section VIII, D.1.b)	Identify target vector species to develop species-specific pest management strategies based on developmental and behavioral considerations for each species	In the OCVCD IVM Plan we only list the species of mosquitoes that are of public health significance and summarize the nuisance vectors by genera. (<i>Culiseta</i> spp/ <i>Aedes</i> spp.) Is this sufficient? Should we go back and include vector/nuisance mosquitoes by species?

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No.	Page/Section	Permit Language Referenced	Comment
40	pg. 16, 8 th paragraph (Section VIII, D.1.c)	Identify known breeding areas for source reduction, larval control program, and habitat management	<p>In many cases the larval sources are already known, but resources or other regulations make them impossible to comply with "source reduction" or "habitat management". For example, rice fields require water to be on the field when mosquito populations tend to thrive. Draining a rice field or reducing vegetation (rice) within the field is not practical. Similarly, wetlands have historically produced significant mosquito populations. Draining a wetland or requiring resource agencies to implement vegetation control is either prohibited or simply not done by the resource agency due to a lack of financial resources.</p> <p>How is "source reduction" or "habitat management" applicable to these areas in light of permit section D.2. Examine the Possibility of Alternatives (which includes consideration of feasibility and cost-effectiveness)?</p>
41	pg. 16, 12 th paragraph (Section VIII, D.2.b)	Dischargers should continue to examine the possibility of alternatives to reduce the need for applying larvicides that contain temephos and for spraying adulticides. Such methods include... Applying pesticides only when vector are present at a level that will constitute a nuisance	<p>This is a very arbitrary number and could be a very different number for different regions of California.</p> <p>The CA. H&S code defines a nuisance as the "presence" of vectors. How will this be harmonious with the setting of thresholds for treatments? If the intent is to minimize adulticide applications, then the setting of thresholds for larval control should simply be "presence of larvae".</p> <p>Does a nuisance require the presence of "vectors" or do large numbers of biting mosquitoes fulfill the definition?</p>
42	pg. 16, 13 th paragraph (Section VIII, D.2.c)	Using the least intrusive method of pesticide application	<p>What is considered an "intrusive method of pesticide application"?</p> <p>In addition to defining "least intrusive method" it seems this requirement would be beyond the scope of NPDES, and authority of SWRCB to either determine or regulate -- unless there is a demonstrable negative impact to water.</p>
43	pg. 17, 1 st paragraph (Section VIII, D.2.e)	Applying a decision matrix concept to the choice of the most appropriate formulation	<p>What is the definition of "most appropriate formulation"? This also seems to be beyond the scope and authority of NPDES to make this requirement.</p> <p>We don't currently have a decision matrix format for choosing the best formulation of larvicide/adulticide that are applied in the field. Do we need one? Or is it only in reference to using something other than temephos?</p>

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44	Pg. 17, 3 rd to 5 th paragraphs (Section VIII, D.3)	Users of pesticides must ensure that all reasonable precautions are taken to minimize the impacts caused by pesticide applications. Reasonable precautions include using the right spraying techniques and equipment, taking account of weather conditions and the need to protect the environment. (a) All errors in application and spills are reported to the proper authority. (b) Staff training in the proper application of pesticides and handling of spills.	These requirements are covered via Cooperative Agreements with California Department of Public Health. Since this is already performed by all agencies signatory to a Cooperative Agreement with the California Department of Public Health, it should be deleted.
45	Pg. 17, 6 th to 11 th paragraphs (Section VIII, E)	The Discharger shall maintain a log for each pesticide application. The application log shall contain, at a minimum, the following information, when practical, for larvicide or adulticide applications...	Is it required to keep separate log of this specific data or is it enough to collect this data and have it in general? Will this Pesticide Application Log need to be submitted to the Water Board. If so how frequently? Most of these application log requirements are covered via Cooperative Agreements with California Department of Public Health. This is an unnecessary duplication and should be deleted. All Agencies signatory to a Cooperative Agreement are required to maintain pesticide application records for at least two years.
46	Pg. 17, 11 th paragraph (Section VIII, E.5)	Application details, such as application started and stopped, pesticide application rate and concentration, flow rate of the target area, surface water area, volume of water treated, pesticide(s) and adjuvants used by the Discharger, and volume or mass of each component discharged	Volume of water treated is also unnecessary. Mosquito larvae agents target mosquitoes on the surface on the water. As defined, residual adulticide pesticides that make their way into water bodies are not a part of the target area and would not be included in this pesticide application log. We don't record details of adulticide application that include surface water area & volume of water treated. We also don't list concentration/application rate. Item E5. "Application details", is overly onerous and not practical for technicians to collect all of this data with each application specifically; flow rate of target area, surface water area, and volume of water treated. This staff is not equipped to give this information and much of it would be a gross estimation if that was even possible due to the variation in the types of sources treated like gutters, underground stormdrains etc.
47	Pg. 17, 11 th paragraph (Section VIII, E.5)	... mass of each component discharged; and	Missing text.

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No.	Page/Section	Permit Language Referenced	Comment
48	pg. 17, 13 th paragraph (Section IX, A.2)	This General Permit does not authorize the discharge of residual pesticides or their breakdown by-products to waters of the US that are impaired by the pesticide active ingredients included in permitted larvicides and adulticides listed in Attachments E and F. Impaired waters are those waters not meeting quality standards pursuant to Section 303(d) of the CWA.	Does this mean such waters would not be treatable even in the event of a public health emergency? What is the protocol for a permit if an agency treats a 303(d) listed water? When it is listed for pesticide, which pesticide are they referring to or does that mean anything that is classified and a pesticide? What about if the water is listed for general toxicity?
49	pg. 17, 13 th paragraph (Section IX, A.2)	California impaired waters, as approved by the State Water Board, are listed on http://www.waterboards.ca.gov/water_issues/programs/hnd/Integrated2010 (to be reviewed and adopted by USEPA).	Based on this web site, all of the major waterways in Santa Clara County appear to be 303(d)-listed impaired based on pesticides, metals/Metalloids/etc. Is this an error?
50	pg. 17, last paragraph and pg. 18 1 st paragraph (Section IX, A.3)	The State Water Board may use this General Permit to regulate the discharge of residual pesticides to waters of the US classified as Outstanding National Resource Waters (Lake Tahoe and Mono Lake) or as a water body impaired by unknown toxicity only after the following conditions are satisfied: 1) a project-specific antidegradation analysis was completed and found that the proposed pesticide application is consistent with State and federal antidegradation policies; 2) the proposed project will comply with the limitations and discharge requirements specified in the General Permit; and 3) if required, the proposed pesticide application qualifies for and has been granted a Basin Plan prohibition exception prior to discharge.	Do the additional restrictions on discharges to Lake Tahoe and Mono Lake apply to discharges anywhere in their basin drainages (i.e., potentially affecting any tributary or adjacent waters)? Additional restrictions in Tahoe basin could impact vector programs in Placer and El Dorado counties.
51	pg. 18, 3 rd paragraph (Section IX, A.5)	The Discharger or its vector control technicians must be in compliance with the Memorandum of Understanding issued by the CDPH to apply pesticides for public health vector control.	Discharger should be in compliance with the "Cooperative Agreement" issued by CDPH. (The Memorandum of Understanding is an agreement between CDPH, CDPH and County Agricultural Commissioners to share oversight responsibilities for vector control applications.)
52	pg. 18, 4 th paragraph (Section IX, A.6)	The Discharger must be licensed by DPR if such licensing is required for the pesticide application project.	Permit explains earlier how vector control agencies are not regulated through DPR, so this should be removed.

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No.	Page/Section	Permit Language Referenced	Comment
53	Pg. 18, 6 th paragraph (Section IX, A.8)	In accordance with the PAP, Section VIII.C.1.h-i, the Discharger shall implement <i>feasible</i> any BMPs that could reduce potential water quality impacts.	This requires dischargers to implement any BMP that could reduce potential water quality impacts. The only way this can be accomplished is to pass the cost of larval control to agricultural and natural water sites (duck clubs) to minimize treatments for adult mosquito control. It is estimated this would cost an additional \$50.00 per acre for land that produces mosquitoes in agricultural and wetland habitats (or more than \$50,000,000 statewide). However, Sections C.1.h and D.2.a. provide latitude for feasible alternatives and cost effectiveness when selecting a BMP. This should also be reflected in this section. See inserts and deletions.
54	Pg. 18, 12 th paragraph (Section IX, A.10.a.iii)	After notice and opportunity for a hearing, this General Permit may be terminated or modified for cause, including, but not limited to... a change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge	This provision does not make any sense. It may not apply to discharges associated with vector control. Why would we be terminated or need modification if there is a reduction or temporary elimination of discharge? This may be remnant language from waste water discharge template.
55	Pg. 18, 13 th paragraph (Section IX, A.10.a.iv)	... a material change in the character, location, or volume of discharge (if applicable).	This is sort of vague, what constitutes a "material change?" This may be remnant language from waste water discharge template.
56	Pg. 19, 2 nd and 4 th paragraphs (Section IX, A.10.e and A.10.g)	Laboratories that perform sample analyses must be identified in all monitoring reports submitted to the State and Regional Water Board. Each Discharger shall file with the State Water Board technical reports on self-monitoring performed according to the detailed specifications contained in the Monitoring and Reporting Program attached to this General Permit.	Item e. says monitoring reports must go to <u>both</u> the State Board and Regional Board. Item g. says that technical reports on the self-monitoring performed go only to the State Board. This is confusing to figure out what goes to the State and what goes to the Region. For monitoring conducted by Statewide Coalition, it would make sense for the State Board to conduct all oversight.
57	Pg. 19, 6 th paragraph (Section IX, B.1)	The Discharger shall comply with its individual or a <i>Coalition monitoring and reporting plan prepared in accordance with the MRP, and future revisions thereto, in Attachment C of this General Permit.</i>	See insert and deletion.

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No.	Page/Section	Permit Language Referenced	Comment
58	Pg. 19, 9 th paragraph (Section IX, C.1.a)	This General Permit may be re-opened for modification, or revocation and reissuance in accordance with the provisions contained in 40 C.F.R. § 122.62. This General Permit may also be re-opened if additional aquatic pesticides are registered by DPR.	Since not all of the pesticides currently registered in California are included in this permit due to time constraints for review by board staff, there should be an explicit opportunity to reopen for the addition of additional, currently registered products.
59	Pg. 20, 2 nd paragraph (Section IX, C.1.d)	Receiving Water Limitations. This General Permit may be re-opened to add receiving water limitations if the monitoring result for residual pesticides specified in the Table 3 (Receiving Water Monitoring Triggers) exceed the associated monitoring trigger indicates non-compliance with the narrative toxicity receiving water limitation.	See insert and deletion.
60	Pg. 20, 5 th paragraph (Section IX, C.2)	This General Permit requires the Discharger or if applicable, the Coalition, to conduct additional investigations for compliance with the narrative toxicity Receiving Water Limitation if the monitoring results for residual pesticides listed in Table 3 exceed their monitoring triggers.	It is clear the residual pesticides listed in Table 3 will exceed their monitoring triggers, although it is just as clear that the doses listed will not significantly impact aquatic life (based on Weston studies), except that it may add to an already toxic environment. To this end the State Board should evaluate the purpose of this permit as it relates to minimizing residues from adulticide treatments to control adult mosquitoes as opposed to the constituents found in the waterways from some other sources that are not being regulated. We would propose following the lead of the USEPA Nationwide General Permit to ensure public health is not compromised by performing unnecessary tests.
61	Pg. 20, 5 th paragraph (Section IX, C.3.a)	The Discharger shall report to the State Water Board and the appropriate Regional Water Board any noncompliance, including any effect of a pesticide's use that is unexpected or unintended, that may endanger health or the environment.	Here's our general reporting problem; pesticide apps must not exceed label.
62	Pg. 20 – 22 (Section IX, C.3 to C.4)	Twenty-Four Hour Report, Five-Day Written Report, and Corrective Action	This is an unnecessary duplication of a process currently being administered by the California Department of Public Health. DPH requires an "Adverse Incident" report be filed consistent with the language in this section of the permit. In addition, any requirements in the referenced sections should be specifically limited to water. Otherwise these seem well beyond authority of SWRCB.

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No.	Page/Section	Permit Language Referenced	Comment
63	pg. 22, 1 st paragraph (Section IX, C.4.a.ii)	<p>If any of the following situations occur, the Discharger must review and, as necessary, revise the evaluation and selection of the control measures to ensure that the situation is eliminated and will not be repeated in the future...</p> <p>The Discharger becomes aware, or the State Water Board concludes, that the control measures are not adequate/sufficient for the discharge to meet applicable water quality standards or Receiving Water Monitoring Triggers for the concerned pesticides;</p>	<p>The application of pesticides by vector control districts for the protection of public health done under all applicable labels and regulations will likely exceed the Receiving Water Monitoring Triggers in the permit. The MVCAC has provided the SWRCB staff documentation that demonstrates these triggers will be exceeded when applications are made. The inclusion of these triggers in the permit will give the impression to the general public that applications for public health are in violation of the NPDES permit requirements and therefore are polluting the State of California waterways.</p> <p>This draft also incorrectly suggests that monitoring triggers equate to toxic concentrations of pesticide residues and evidence of non-compliance with permit conditions.</p> <p>The MVCAC is committed to the protection of the states water and is willing to investigate the impacts of our applications to water by implementing the proposed water quality monitoring plan. However, we suggest that the language regarding Receiving Water Monitoring Triggers be changed in the permit as it gives the impression that any application made to protect public health will violate the NPDES permit and pollute our waterways. There should be specific language that states exceedance does not mean or imply non-compliance with permit conditions. Monitoring triggers only indicate a need for additional investigations to determine if toxicity is associated with vector control applications.</p> <p>See suggested deletion.</p> <p>[See also comment #3, 29-30 and 60-61]</p>

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No.	Page/Section	Permit Language Referenced	Comment
64	pg. A-1, 2 nd paragraph (Attachment A)	<p>Adverse or Toxic Effect. An "adverse or toxic effect" includes are impacts that occur within US waters on non-target plants, fish, or wildlife that is unusual or unexpected (e.g., effects are to organisms not otherwise described on the pesticide product label or otherwise not expected to be present) as a result of exposure to a pesticide residue, and may include:</p> <ul style="list-style-type: none"> • Distressed or dead juvenile and small fishes • Washed up or floating fish • Fish swimming abnormally or erratically • Fish lying lethargically at water surface or in shallow water • Fish that are listless or nonresponsive to disturbance • Stunting, wilting, or desiccation of non-target submerged or emergent aquatic plants • Other dead or visibly distressed non-target aquatic organisms (amphibians, turtles, invertebrates, etc.) 	<p>This provision may result in an onerous reporting and investigation process. There needs to be some type of screening of reports of adverse or toxic effects. There are myriad groups or organizations whose agenda is to end public health pesticide use. This provision as written has the potential to inundate the District with fictitious reports and overwhelm the District's already stretched resources.</p>
65	pg. A-3, 6 th paragraph (Attachment A)	<p>Representative Monitoring Location. The representative monitoring location is a location within or near the application area that is typical of the hydrologic and vegetative conditions present at the application area.</p>	<p>The Definition for "Representative Monitoring Location" states that the representative monitoring location is a location within or near the application area. This is misleading to say within or near the application area when in fact most districts who will be referring to the representative monitoring locations will be across the state. I think it should say a representative monitoring location is "characteristic" of the application area(s).</p>
66	pg. A-3, 7 th paragraph (Attachment A)	<p>Residual Pesticides. Residual pesticides are pesticide ingredients or breakdown products that are present after the use of the pesticide for vector control.</p>	<p>What are they and how are they identified? [See also comment #7 and 9]</p>

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No.	Page/Section	Permit Language Referenced	Comment
67	pg. A-4, 3 rd to 13 th paragraphs (Attachment A)	<p>Waters of the US means:</p> <ol style="list-style-type: none"> 1. All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; 2. All interstate waters, including interstate "wetlands;" 3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, "wetlands," sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters: <ol style="list-style-type: none"> a. Which are or could be used by interstate or foreign travelers for recreational or other purposes; b. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or c. Which are used or could be used for industrial purposes by industries in interstate commerce; 4. All impoundments of waters otherwise defined as waters of the US under this definition; 5. Tributaries of waters identified in paragraphs (a) through (d) of this definition; 6. The territorial sea; and 7. "Wetlands" adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) through (f) of this definition. 	<p>How will certain flood bypass channels be defined? Specifically, how will a structure such as the Yolo By-Pass be defined, both now and with current proposals to flood the bypass during certain times of the year for salmonid and/or smelt habitat? Will it be defined as a "Water of the US" while it has water, and then not be defined as such when it is dry?</p> <p>Where would rice fields and agricultural drains fall within this definition? These sites comprise a large portion of the District. If they are in fact "Waters of the US" there will likely be severe financial ramifications. If the District were forced into using only larvicides in these areas the associated increased costs may be assessed to the growers at \$10 to \$50 per acre.</p>
68	pg. B-1, 4 th paragraph (Attachment B, Section I, C)	<p>The Discharger shall take all reasonable steps to minimize or prevent any discharge in violation of this General Permit that has a reasonable likelihood of adversely affecting human health or the environment. (40 C.F.R. § 122.41(d).)</p>	<p>Putting water over human health? Reverse statement is in order. This permit more likely than chemicals we use to adversely effect human health!</p>

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No.	Page/Section	Permit Language Referenced	Comment
69	pg. B-1, 3 rd paragraph (Attachment B, Section I, D)	The Discharger shall at all times properly operate and maintain all facilities and systems of control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this General Permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. (40 C.F.R. § 122.41(e).)	This section seems remnant from the waste water permit especially, "operate and maintain all facilities." This language does not apply to vector control activities.
70	pg. B-4, 5 th paragraph (Attachment B, Section V, B.2.b)	The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) (40 C.F.R. § 122.22(b)(2))	The examples like "plant manager and well field superintendent" do not apply to vector control. Perhaps positions relevant to vector control should be listed as examples.
71	pg. B-5, 3 rd paragraph (Attachment B, Section V, C.2)	Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Regional Water Board or State Water Board for reporting results of monitoring of sludge use or disposal practices. (40 C.F.R. § 122.41(f)(4)(i).)	Is this correct? This does not appear to be appropriate for Vector Control.
72	pg. B-5, 4 th paragraph (Attachment B, Section V, C.3)	... the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the State Water Board. (40 C.F.R. § 122.41(f)(4)(ii).)	The term "sludge reporting form" should be removed.
73	pg. C-2, 2 nd paragraph (Attachment C)	This Monitoring and Reporting Program is designed to address the two key questions shown below. It also encourages Dischargers to form monitoring coalitions with others doing similar applications within a given watershed or doing applications of similar use patterns (urban, agricultural, and wetlands). If the Discharger elects in its PAP to undertake monitoring and reporting through a Coalition, then the Coalition will act on behalf of the Discharger with respect to monitoring and reporting.	As a suggestion (since this is a study), add that the Program is designed to "examine or study" (choose one) and address the two key questions shown below. Also in the same paragraph it is good to see the clarification that "the Coalition will act on behalf of the Discharger with respect to the monitoring and reporting." Recommend that a matrix be developed to make clear what the individual agency will need to report directly and to who (State, Region, or both) and what the Monitoring Coalition will report.

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No.	Page/Section	Permit Language Referenced	Comment
74	pg. C-2, 2 nd paragraph (Attachment C)	If the Discharger elects in its PAP to undertake monitoring and reporting through a Coalition, then the Coalition will act on behalf of the Discharger with respect to monitoring and reporting.	Is this referring to only reporting regarding the 6 adulticide monitoring sites? We are assuming the Coalition won't be reporting each District's larviciding activities.
75	pg. C-2, 2 nd paragraph (Attachment C)	If the Discharger elects in its PAP to undertake monitoring and reporting through a Coalition, then the Coalition will prepare and implement a monitoring and reporting plan pursuant to this Attachment C) and act on behalf of the Discharger with respect to monitoring and reporting. Otherwise the Discharger will prepare and implement an individual plan.	See inserts.
76	pg. C-2, 5 th paragraph (Attachment C)	Each Coalition's or individual Discharger's PAP must demonstrate how this will be accomplished by including the following information...	This indicates a single PAP will be adopted by the Coalition, correct?
77	pg. C-2, 5 th paragraph (Attachment C)	Each Coalition's or individual Discharger's monitoring and reporting plan, which is part of the PAP, must demonstrate how this will be accomplished by including the following information...	See inserts.
78	pg. C-3, 2 nd paragraph (Attachment C)	Except as provided in Section II below, Monitoring locations shall not be changed without notification to and approval by the State Water Board Deputy Director of the Division of Water Quality.	See insert.

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No.	Page/Section	Permit Language Referenced	Comment
79	Pg. C-4, 1 st paragraph (Attachment C, Section III, A) and pg. C-4, 2 nd paragraph (Attachment C, Section III, A.1) and pg. C-8, 13 th paragraph (Attachment C, Section IV, C.1)	Each Coalition or Discharger shall conduct toxicity testing to determine whether residual pesticides are contributing toxicity to the receiving water. The Coalition or Discharger shall meet the following toxicity testing requirements... <i>For dischargers that use the larvicide temephos larvicides, each Coalition or Discharger shall perform the toxicity testing in conjunction with...</i> <i>If a Discharger applies the larvicide temephos, then the Discharger or Coalition plan Monitoring-Tests for larvicides (temephos) must include frequent and routine monitoring at locations and on a pre-determined schedule, as summarized in the Table C-1 below. For other larvicides, monitoring shall be limited to the first row of Table C-1 (Visual)...</i>	Is temephos the only larvicide that qualifies for this section (i.e., monitoring, sampling, test species etc.? See recommended revisions to text.
80	Pg. C-4, 1 st paragraph (Attachment C, Section III, A.1)	Monitoring Frequency- For larvicides, each Coalition or Discharger shall perform the toxicity testing in conjunction with the Background and Event Monitoring for active ingredients and at testing frequency specified in table C-1 (coalition or Individual Monitoring Requirements for Larvicides). For adulticides, each Coalition or Discharger shall perform the toxicity testing in conjunction with the Background and Event Monitoring for active ingredients and at testing frequency specified in table C-2 (coalition or Individual Monitoring Requirements for Adulticides).	Pre application toxicity testing would be redundant as the Event Monitoring toxicity results trigger additional investigations that may be required.
81	Pg. C-4, 3 rd paragraph (Attachment C, Section III, A.2)	The receiving water control shall be a grab sample taken from a receiving water sampling location (outside of the application influence) as specified in the PAP or within the application area up to 24 hours before application.	Use same language as pg C-7 for background monitoring (up to 24-hours in advance of application). [See also comment #90]

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No.	Page/Section	Permit Language Referenced	Comment
82	pg. C-6 (Attachment C, Section IV, A and B)	Watershed Monitoring and Monitoring Requirements	Based on the current permit language and monitoring requirements, this could be generally avoided with an aggressive larviciding program that transfers the cost of control to the landowner through implementation of the Ca Health and Safety Code. This will result in an increase of agricultural costs of more than \$50 million dollars statewide and costs to resource agencies (such as Department of Fish and Game) of similar amounts
83	pg. C-6, 2 nd paragraph (Attachment C, Section IV, A)	To foster the implementation of the WMA approach, this General Permit encourages MVCAC, its member organizations, and other vector control agencies to participate in the development and implementation of a watershed-wide <i>or statewide</i> monitoring program to determine the water quality impacts of their vector control activities.	The permit references "watersheds" and not the statewide coalition. This verbiage can be interpreted to indicate that sampling must be undertaken on a specific watershed basis and not statewide as indicated by the SWRCB staff during all meetings leading up to the creation of the draft permit. The collaboration on the development of the permit has been with the understanding on both sides that a statewide coalition could be formed to gather the data and test for the products used in mosquito control. It was stated on numerous occasions and understood that applications and sampling could be done in one part of the state that would fulfill the requirement for all members of the coalition. Never was it mentioned that sampling would need to be done based on a "watershed". The reference to "watersheds" is confusing and has the potential to open the door for civil liability. It seems that this language was taken from the existing aquatic weed permit and does not apply to this current statewide coalition for Vector Control applications. We would recommend that this reference be removed and replaced with a more consistent terminology.

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No.	Page/Section	Permit Language Referenced	Comment
84	pg. C-6, 3 rd paragraph (Attachment C, Section IV, B)	<p>Question No. 1: Does the pesticide residue from applications cause an exceedance of receiving water limitations or monitoring triggers?</p> <p>Question No. 2: Does the pesticide residue, including active ingredients, inert ingredients, and breakdown by-products, in any combination cause or contribute to an exceedance of the "no toxics in toxic amount" narrative toxicity objective?</p> <p>...</p> <p>The PAP shall be designed to answer the two key questions stated above.</p>	<p>Will the 6 Coalition monitoring sites and PAP completely satisfy this requirement?</p>
85	pg. C-6, 4 th paragraph (Attachment C, Section IV, B)	<p>The PAP must consider watershed specific attributes and waste constituents, based on the natural characteristics of applications within the Coalition's or Discharger's area, as well as the receiving water quality conditions. Watershed specific requirements will include follow-up sampling and analyses on exceedances that may be unique for specific pesticides.</p>	<p>It states "watershed specific requirements will include follow-up sampling and analyses on exceedances that may be unique for specific pesticides." This needs to be expanded on. What does it mean? Is it referring to 303(d) listed waters?</p>
86	pg. C-6, 5 th paragraph (Attachment C, Section IV, B)	<p>Monitoring area information shall include a description of the study area, GPS coordinates, and pesticides being applied. The numbers and locations of the monitoring areas must be sufficient to characterize water quality, based on specific watershed characteristics, and be supported by a detailed discussion of these characteristics.</p>	<p>In the same section it states "the numbers and locations of the monitoring areas must be sufficient to characterize water quality, based on specific watershed characteristics." I think this should be more generalized because it implies that there may be numerous monitoring areas to capture an adequate "characterization" of each watershed. It should not be about a unique/specific watershed but rather watershed type or watershed within habitat type.</p>
87	pg. C-7, 13 th to 14 th paragraphs (Attachment C, Section IV, B, 8-9)	<p>The logical framework should describe...</p> <p>8. Sufficient number of sampling areas to assess the entire Discharger's or Coalition's area of influence; and</p> <p>9. The approach, including a schedule, to sample monitoring areas.</p>	<p>As discussed in multiple meetings with State Board staff, the monitoring approach agreed upon is to select representative sites where relatively high use occurs, not to conduct monitoring throughout the entire state. This approach is not reflected in the permit language.</p>

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No.	Page/Section	Permit Language Referenced	Comment
88	pg. C-8, 10 th paragraph (Attachment C, Section IV, C)	On March 15, 2010, MVCAC submitted a Draft Conceptual Monitoring Plan for Mosquito Larvicides and Adulticides. MVCAC submitted a revised plan on June 22, 2010. The revised plan did not provide the following information: sampling frequency to characterize the discharge of residual pesticides; sampling for malathion, resmethrin, prallethrin, etofenprox, and MGK-264; and a detailed sampling plan for larvicides. In addition, sampling in the revised plan was still based solely on the most commonly used active ingredients. Thus, this Monitoring and Reporting Program includes requirements to collect this information. Monitoring shall be conducted on each type of sites representative of statewide applications (urban, agricultural, and wetlands.)	Why is language even written and included? Seems more like a scolding than an official document!
89	pg. C-8 to C-9 (Attachment C, Section IV, C.1)	Table C-1. Coalition or Individual Monitoring Requirements for Larvicides Remove Background Monitoring for Toxicity	It should be made clear in this table that these monitoring requirements pertain only to temephos, not to all larvicides. Suggest changing the title to: "Coalition or Individual Monitoring Requirements for Larvicides Containing Temephos". Pre application toxicity testing would be redundant as the Event Monitoring toxicity results trigger additional investigations that may be required.

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No.	Page/Section	Permit Language Referenced	Comment
90	pg. C-9 to C-10 (Attachment C, Section IV, C.2)	Table C-2. Coalition or individual Monitoring Requirements for Adulticides Footnote 6: First year sampling shall include pyrethrin, permethrin, resmethrin, sumithrin, prallethrin, etofenprox, PBO, PBO (in PBO/Pyrethrin mixture), and PBO (in PBO/Resmethrin mixture). Second year sampling shall include malathion and malathion. Third year sampling shall include MGK-264. If the active ingredient required to be tested in the specified year would not be used in that year or if a minimum of six samples could not be achieved for that year, the Coalition or Discharger is required to conduct one-full year of sampling or achieve the requirement of a minimum of six samples when that active ingredient will be used in the upcoming years.	Identifying pesticides to be sampled beforehand should be replaced with "adulticides that are used in any given year shall have appropriate sampling occurrences that meet the objective of this permit"
91	pg. C-10, 1 st paragraph (Attachment C, Section V, A.1)	Remove Background Monitoring for Toxicity	Pre application toxicity testing would be redundant as the Event Monitoring toxicity results trigger additional investigations that may be required. Many adulticide applications occur based on real-time data (in other words, traps collected and counted at 3:00pm may result in a treatment that evening). A 24 hour reporting requirement before the application is not feasible. The phrase "before the start of the application" is vague. It should be stricken or clarified.
92	pg. C-11, 4 th paragraph (Attachment C, Section V, B.1)	Annual reports shall contain the following information...	This appears to indicate that the six Coalition monitoring sites will need to be repeated annually? Will the annual reports be primarily based on those coalition sites and not the local district?

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No.	Page/Section	Permit Language Referenced	Comment
93	pg. C-12, 2 nd paragraph (Attachment C, Section V, B.3)	At any time during the term of this General Permit, the State Water Board or the appropriate Regional Water Board may notify Dischargers or Coalition of the requirement to electronically submit Self-Monitoring Reports (SMRs) using the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site (http://www.waterboards.ca.gov/ciwqs/index.html). Until such notification is given, each Coalition or Discharger shall submit hard copy SMRs.	The Self-Monitoring Reports need better explanation. How does this differ from a monthly report or what is reported in the annual report? What would trigger having to do this?
94	pg. C-13, 7 th paragraph (Attachment C, Section V, C.6)	Dischargers or Coalition shall submit the Annual Report in accordance with the following requirements...	This appears to indicate the Coalition sends in a single Annual Report for all of its members.
95	Attachment D	In general, for all pesticides listed in Section D, please standardize the USEPA toxicity class. It is not mentioned for all materials.	
96	pg. D-9, 1 st paragraph (Attachment D, Section I, A.3.a)	After a brief period of rest, adult females seek of blood meals and the cycle continues.	The word "of" should be deleted between "seek" and "blood meals". There are some formatting issues around the mosquito life cycle picture.
97	pg. D-10, 2 nd paragraph (Attachment D, Section I, A.3.a)	Of those female mosquitoes capable of blood feeding, human blood meals are seldom first or second choices. Horses, cattle, smaller mammals and/or birds are preferred.	This sentence could evoke the impression that mosquitoes rarely bite humans and that therefore mosquito control could be reduced in the interest of water quality protection, when in fact most mosquito species will readily bite humans and mosquito borne illness presents a considerable threat to the health and wellbeing of California residents. This should be stated more clearly!
98	pg. D-16, 3 rd paragraph (Attachment D, Section III, A.4)	Due to the potential for toxicity resulting from the synergistic effect of PBO on pyrethroids and the additive effects of larvicide and adulticide products on pesticides that are already in creek sediments or in the water column, this General Permit requires toxicity monitoring of pesticide applications.	This statement seems to be ignoring the real issue, i.e. pesticides already in the waterway.
99	pg. D-18, (Attachment D, Section III, B.1.b)	A few agencies make applications with their own aircraft. The number and extent of <i>aerial</i> serial application of larvicides differ among agencies, from only a few times each year, covering a few hundred acres, to more frequent or extensive operations in the Central Valley districts.	See insert and deletion.

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No.	Page/Section	Permit Language Referenced	Comment
100	pg. D-23, 8 th paragraph (Attachment D, Section V, B.3)	Treatment, in many cases, may render the pesticide useless for pest control.	Need to make clear that "treatment" refers to treatment of effluent to reduce concentrations. Language is confusing, "treatment" can be interpreted as a mosquito control application.
101	pg. D-28, 2 nd paragraph (Attachment D, Section VI, B, Establishing Receiving Water Monitoring Triggers)	In pesticide applications for vector control, it is reasonable to conclude that some residual pesticides will be deposited in surface waters. These residual pesticides may cause toxicity to aquatic life. However, information regarding residual pesticides deposited in the receiving water as a result of direct or spray applications for vector control is not adequate to develop receiving water limitations for individual and combinations of pesticides; therefore, this General Permit only contains Receiving Water Monitoring Triggers. The monitoring triggers will be used to assess compliance with the narrative toxicity receiving water limitation and trigger additional investigations for the causes of toxicity caused by the larvicides and adulticides used and their additive or synergistic effects. This General Permit includes an Instantaneous Maximum Receiving Water Monitoring Trigger for residual pesticides of concern.	See deletion.
102	pg. D-29 to D-51 (Attachment D, Section VI, B.1 and B.2)	The discussion of pesticides in Section D leads the reader to believe that the information presented is an exhaustive review of the subject; however the information is not complete. For example, studies were presented for only some of the pesticides, a few of these studies were not associated with vector control applications, and additional uses for the pesticides have been reported to DPR that are not discussed in these sections. Information provided by MVCAC on studies specific to ULV applications in CA are not discussed in these sections.	
103	pg. D-31, 1 st and 3 rd paragraph (Attachment D, Section VI, B.1.c)	Temephos is applied to water most commonly by helicopter but can be applied by backpack sprayers, fixed-wing aircraft, and right-of-way sprayers in either liquid or granular form. Because temephos is applied directly to water, it is not expected to have a direct impact on terrestrial animals or birds.	See insert.

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104	pg. D-33, 3 rd paragraph (Attachment D, Section VI, B.1.e)	Thus, there would be a higher concentration exposure at the surface, but in a smaller proportion of the entire water body, and a lower concentration throughout the vertical extent of the water body. Therefore, any possible adverse effects on the critical components of the aquatic ecosystem would be much lower within the water column <i>than on the surface layer.</i>	See insert.
105	pg. D-35, 1 st paragraph (Attachment D, Section VI, B.2.a.i) and pg. D-36, 6 th paragraph (Attachment D, Section VI, B.2.a.ii)	According to a Report from the CDC that summarizes investigations of illnesses associated with exposures to insecticides uses during 1999-2002 to control mosquito populations in nine states (including California), 133 cases of acute insecticide-related illness associated with vector control were identified. Of the 133 reported cases of pesticide-related illness, 95 (71.4%) cases were associated with OP insecticides, mainly malathion. Malathion was associated with 64 (67.4%) of the 95 cases. ... According to a report from the CDC that summarizes investigations of illnesses associated with exposures to insecticides uses during 1999-2002 to control mosquito populations in nine states (including California), malathion was associated with 23 of 133 reported cases of pesticide-related illness associated with vector control. Naled is an acute toxicity level I OP pesticide.	Were all of the cases mentioned from exposure from non-applicators/mixers? Note: Of 36 persons who were exposed at their workplaces, 14 (38.9%) were insecticide applicators, and 22 (61.1%) were performing tasks that did not involve pesticide application (Table 1). Also note: Of the 133 cases of acute insecticide-related illness associated with mosquito control that were identified, two (1.5%) were classified as definite, 25 (18.8%) as probable, and 106 (79.7%) as possible. Of the 49 cases identified in 2001, a total of 29 (59.2%) were related to a single event at a softball game in which workers operating a mosquito-control truck inadvertently sprayed 29 persons (16 spectators, 12 players, and one coach) with Fyfanon ULV ®, which contains malathion. This study is available at: http://www.cdc.gov/mmwr/PDF/wk/mm5227.pdf

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No.	Page/Section	Permit Language Referenced	Comment
106	pg. D-36, 6 th paragraph (Attachment D, Section VI, B.2.a.ii)	Naled is an OP insecticide that has been registered since 1959 for use in the United States. It is used primarily for controlling adult mosquitoes, but naled is also used on food and feed crops and in greenhouses.	Naled rapidly breaks down into DDVP which is the active ingredient for Vapona, a commonly used insecticide in agriculture. The Sutter County Agriculture Department has stated that Vapona is used in almost all fruit, grain and nut processing plants in the County. Last year 550 gallons of Vapona was sold in Sutter County of which only 25 gallons was reported to the Agriculture Department. Vapona and glyphosate are the two most under reported pesticides in the State. Vapona is used in timed misting equipment in these plants on a continuous basis. The large usage of this product, which overlaps our usage pattern, will likely corrupt any water monitoring. This is especially true considering that the trigger for Naled is 14 parts per trillion.
107	pg. D-38 (Attachment D, Section VI, B.2.b)	Table D-3. Summary of Toxicity Data for Pyrethrin	Shouldn't there be references for each of these values? How can we verify/track where these values were derived? Hopefully they were from peer-reviewed, scientific publications or EPA submitted data based on GLP research facilities.
108	pg. D-38, 5 th paragraph (Attachment D, Section VI, B.2.c)	Most pyrethroid vector control products can be applied only by public health officials and trained personnel of vector control districts.	Only resmethrin is restricted to public health officials and vector control districts.
109	pg. D-48 to D-51 (Attachment D, Section VI)	Table D-13. Persistence of Vector Adulticides Active Ingredients Table D-14. Persistence of Vector Larvicides Active Ingredients	The full references are not provided.
110	pg. D-51, 3 rd paragraph (Attachment D, Section VII, A)	Pursuant to the requirements of 40 C.F.R. § 122.44(i) effluent monitoring is required for all constituents with effluent limitations.	Wasn't it determined that larvicides are not effluents until they have completed their intended function? Residual activity is needed to continue suppression of mosquitoes that will continue to lay eggs in treated waters - as long as there is continued oviposition- the material has not completed its intended function and thus is not considered an effluent.

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No.	Page/Section	Permit Language Referenced	Comment
111	pg. D-52, 9 th paragraph (Attachment D, Section VIII, B 4)	Receiving Water Limitations. This General Permit may be re-opened to add receiving water limitations if the monitoring result for residual pesticides specified in the Table 3 (Receiving Water Monitoring Triggers) exceed the associated monitoring trigger indicates non-compliance with the narrative toxicity receiving water limitation.	See insert and deletion.
112	pg. E-1 and F-1	Attachment E – List of Permitted Adulticide Products Attachment F – List of Permitted Larvicide Products	<p>What mechanism is in place to ensure the timely review and use of public health pesticides that become available? Is there any concern from the SWRCB regarding the lack of available tools for public health? Has there been consultation with CA DPH regarding the potential lack of public health tools through administration of these regulations?</p> <p>It is our understanding that temephos has been voluntarily withdrawn by the registrant, but that existing supplies may be used for the next five years. Does voluntary cancellation of a public health pesticide have an impact on the use within the structure of this permit?</p>