

Conformed Response to February 18, 2011 Comments

**Draft Statewide General National Pollutant Discharge
Elimination System (NPDES) Permit for Residual Pesticide
Discharges to Waters of the United States from Spray
Applications**

**State Water Resources Control Board
March 1, 2011 Meeting**

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A. Comment Letters Received

Letter Number	Affiliation	Representative
1	City of Los Angeles Department of Water and Power	Katherine Rubin
2	Pesticide Watch Education Fund Environment California San Francisco Baykeeper Stop the Spray East Bay Pesticide Action Network of North America Californians for Pesticide Reform Safe Alternatives to Pesticides Mothers of Marin Against the Spray Health and Habitat Safety Without Added Toxins (SWAT) Pesticide Free Zone	Paul S. Towers Dan Jacobsen Jason Flanders Nan Wishner Katherine Gilje David Chatfield Nancy Jamello Debbie Freidman Sandy Ross Karen Laslo Ginger Souders-Mason
3	Department of Food and Agriculture	Michele Dias

B. Responses to Comments

General Comment

Staff revised the responses to the comments below to include staff's responses to the State Water Board members' questions at the March 1, 2011 Board meeting, and to make the responses consistent with the adopted permit,

1. Comment Letter 1 - City of Los Angeles Department of Water and Power (LADWP)

Comment 1.01:

There is inherent variability associated with toxicity testing, as well as aquatic pesticide applications to water (depending upon water depth, flow rate, spot versus large-scale treatment, time of year and day). For these reasons, it has proven very difficult to monitor for pesticide residuals in the field. In addition, "short-term pulses" of toxicity may be detected in receiving water that previously demonstrated no toxicity - a further reflection of inherent variability. LADWP assumes that toxicity tests will correctly determine that a non-toxic sample is indeed non-toxic ninety-five percent of the time. This conversely means there will be false-positive results five percent of the time. Using this assumption, even if all samples are non-toxic, the probability of passing the six consecutive tests will be no more than 74 percent. Given the role of variability, the probability may in fact be even lower.

Response:

At its March 1, 2011 meeting, the State Water Board decided to remove toxicity testing by dischargers. Instead, the State Water Board will initially fund toxicity studies using funds available to the State Water Board. The permit allows for reopening and modification to incorporate toxicity monitoring requirements if the State Water Board-funded toxicity study shows such requirements are necessary.

Comment 1.02:

Determining the causes of toxicity is very difficult, which is why most California water bodies that are impaired for toxicity list the source as "unknown." Further, toxicity testing serves only to establish general toxicity in the receiving water, not the presence of residual pesticides. Rather, analytical chemistry is the most appropriate tool for assessing whether deliberate pesticide applications have adverse impacts on water quality. If the purpose of the toxicity testing requirement is to determine the presence of unknown ingredients that are contained in pesticides, other more appropriate analytical methods exist.

Response:

See Response for Comment 1.01 above.

Comment 1.03:

As a public agency and drinking water supplier, protecting water quality, its beneficial uses - and public health - are of LADWP's most important missions. However, a review of the 303(d) list shows that unknown sources are responsible

for most of the toxicity impairment found in the state's water bodies, not entities such as LADWP that undertake deliberate pesticide applications. The toxicity of these pesticides is known, is used for beneficial purposes, and is applied in a manner consistent with its labeling, by well-trained operators.

Response:

Noted.

Comment 1.04:

In light of the above, LADWP believes that the need for toxicity testing has not been established and suggests that the Board reconsider whether or not toxicity testing is valid for the pesticides permits. However, should the Board require toxicity testing, LADWP requests that the above-referenced section be revised as follows (proposed text shown in bold-face):

"For the first application, the discharger shall collect one Background sample and one Event sample in the application area for toxicity testing. If the Background sample result shows no toxicity, the discharger shall continue taking only Event samples until a total of **three consecutive Event sample results** (emphasis added) show no toxicity in the receiving water. Thereafter, no further testing for toxicity will be required for the active ingredient used at that representative site. "

Response:

See Response for Comment 1.01 above.

As stated in the previous response document, the intent of the sampling program is to select a number that will detect most events of noncompliance without requiring needless or burdensome monitoring. Table 3-1 of the EPA Region 9 and 10 Toxicity Training Tool provides guidance on the selection of the appropriate sample number. It shows that six is the minimum number of samples where there is about a 50 percent chance of detecting at least one toxic event for the three probabilities of occurrence shown on the table. Reducing the minimum number of samples to three will reduce the likelihood of detecting at least one toxic event by at least 20 percent.

Staff also used EPA's Technical Support Document for Water Quality-Based Toxics Control (TSD) to determine the appropriate number of samples that would be needed to characterize the impacts of the pesticide applications. Page 53 of the TSD recommends using a coefficient of variation (CV) 0.6 when the data set contains less than 10 samples. Table 3-1 of the TSD shows that with a CV of 0.6, the multiplying factors used to determine whether a discharge causes, has the reasonable potential to cause or contribute to an excursion above a State water quality standard begin to stabilize when the sample number is six. Stabilize means the difference between the two multiplying factors is small. For example, the difference between the multiplying factors for 1 and 5 samples is 9. For 6 and 10 samples, it is 0.8. If the minimum number of samples is reduced to 3, the difference of the multiplying factors between 3 and 6 is 1.8. Thus, staff retains the requirement for six samples to characterize the effects of pesticide applications.

Comment 1.05:

The toxicity language in Option D excludes the next, intermediate scenario: that pre-existing toxicity may be established via a receiving water Background sample.

Response:

Please see Response for Comment 1.01 above.

Comment 1.06:

If there is pre-existing toxicity in receiving water, this significant fact must be reported to the Board for two reasons: (1) to establish a formal record of pre-existing toxicity in that specific receiving water; and because (2) pre-existing toxicity can affect a determination of toxicity resulting from a discharger's applications.

Therefore, LADWP requests that the above-referenced section be revised as follows (proposed text shown in bold-face): "For the first application, the discharger shall collect one Background sample and one Event sample in the application area for toxicity testing. If the Background sample result shows no toxicity, the discharger shall continue taking only Event samples until a total of three consecutive Event sample results show no toxicity in the receiving water. Thereafter, no further testing for toxicity will be required for the active ingredient used at that representative site. If the Background sample result shows toxicity, the discharger shall report this to the State Water Resources Control Board (Board) within sixty days. If identifiable, all active ingredient/s that contribute to the toxicity must also be reported. If the contributing active ingredient/s cannot be identified, this shall also be reported.

Response:

See Response to Comment 1.05.

2. Comment Letter 2 – Environmental Groups

Comment 2.01:

We commend the inclusion of 30-day public comment requirement for (A)PAPs as reflecting sound public policy, and agree that its inclusion is required by *Waterkeeper Alliance, Inc. v. EPA*, 399 F.3d 486 (2d Cir. 2005). However, in the Spray Applications Permit, it appears that this requirement may be satisfied on a project or "*program-specific*" basis. See SAP p. 16, Section VIII.C. A "program" of pest eradication could conceivably take years to complete, could last indefinitely, and could successively affect many diverse geographic areas such that meaningful public participation would not be achieved by a single public comment period at the outset. We believe that the Board should remove the reference to "programmatic" applications, so as to ensure that prior public notice is given of *specific applications*.

Response:

Staff appreciates the recommendations and support from interested groups. To address the concern on potential confusion on "program and project," staff made the following change in Section VIII.B. Pesticide Notification Requirements in Limitations and Discharge Requirements of the draft permit as shown below:

“The Discharger shall notify potentially affected governmental agencies and the public as soon as a pesticide application for a project is scheduled by posting a notification on its website. The notification shall include the following information:”

Comment 2.02:

The permit application fee has apparently been increased from a nominal amount of \$136 to \$1,120 annually. We endorse the notion of setting permit fees in an amount sufficient to ensure the proper implementation of the program. However, we do not believe the Board has shown that the discharges at issue “require minimal or no treatment systems to meet limits and pose no significant threat to water quality,” or that the amount specified will be sufficient to properly implement the program. We note that annual fees required for comparable discharges elsewhere in section 2200, e.g., those applicable to “any discharge of toxic wastes,” are much higher. Compare 23 CCR § 2200(a) & (a)(1), Category “2.A” (\$13,321) or “3.A” (\$4,372), with SAP p. 12 ¶ III.L; VCP p. 12 ¶ III.L; AAISCP p. 12 ¶ III.L (“*The nature of pesticides is to be toxic ...*”) (emphasis added). Hence, an annual fee of \$4,732 should apply at a minimum.

Response:

The Spray Applications Permit fits Category 3 of Section 2200(b)(9) of Title 23, California Code of Regulation. The annual fee for Category 3 is \$1,200 plus an ambient water quality monitoring surcharge of 21 percent, resulting in a total fee of \$1452.

Comment 2.03:

Antidegradation Policy. According to the revised permits, “compliance with receiving water limitations and other permit requirements will ensure that degradation of the State’s waters will be temporary and that the waters will be returned to pre-application conditions after project completion. Therefore, this General Permit is consistent with State and federal antidegradation policies.”

We are legally and factually concerned with the assertion that the permits “will ensure” that waterbodies are “returned to pre-application conditions” after completion of pesticide projects. The previous permit drafts had indicated that “[w]hile surface waters may be temporarily degraded; water quality standards and objectives *will not be exceeded*. The nature of pesticides is to be toxic in order to protect beneficial uses such as human health. However, compliance with receiving water limitations *is required*. Therefore, this General Permit is consistent with State and federal antidegradation policies.” (emphases added). We believe that the earlier statement is legally correct and should be retained. Further, the supposition that it is generally possible to return a waterbody to pre-project conditions after application of a toxic chemical is factually unsupported. We believe that such a flawed assumption simply underscores the greater need to seek out and utilize alternatives to pesticides that will protect beneficial uses without creating toxic conditions or causing water quality violations. See Comment #6, below.

Response:

Staff has made the suggested changes in Section III.L of the permit and Section IV.C.4 in Attachment D as shown in red text below:

While surface waters may be temporarily degraded, water quality standards and objectives will not be exceeded. The nature of pesticides is to be toxic in order to protect human health. However, compliance with receiving water limitations and other permit requirements are required.

Comment 2.04:

The revised Spray Applications and Vector Control Permits set a numeric receiving water limitation for discharges of malathion. Other pollutants, however, continue to be governed by numeric “monitoring triggers,” which may lead to the re-opening of the permit. In the Vector Control Permit, exceedances of these triggers also give rise to a duty to re-evaluate Best Management Practices (“BMPs”).

We endorse the Board’s usage of the malathion limits, but urge the Board to consider similar limits for dangerous pesticides like carbaryl and naled. We agree with the earlier sets of comments submitted by the National Marine Fisheries Service (“NMFS”) calling for more restrictive limits on the discharge of these pesticides, and note that their use has been found to cause significant harms. See EPA Office of Pesticide Programs, Reregistration Eligibility Decision for Naled (July 31, 2006), pp. 32-33, available at http://www.epa.gov/pesticides/reregistration/REDS/naled_red.pdf; NMFS, ESA Section 7 Consultation Biological Opinion re: EPA Registration of Pesticides Containing Carbaryl, Carbofuran, and Methomyl (Apr. 20, 2009), pp. 373-79, available at <http://www.nmfs.noaa.gov/pr/pdfs/carbamate.pdf>.

Also, we urge the Board to impose a BMP re-evaluation requirement on pesticide applicators subject to the Spray Applications Permit whose discharges exceed applicable numeric monitoring triggers.

Response:

Due to the paucity of data for the pesticide active ingredients, the State Water Board or USEPA has not established water quality objectives or criteria for the active ingredients (except for malathion) listed in the Permit. Since there are no water quality objectives or criteria to base the Receiving Water Limitations on except for malathion, staff used professional judgment to establish the triggers to protect the beneficial uses of the receiving waters. Staff based the Receiving Water Monitoring Trigger on one-tenth of the lowest 50 percent Lethal Concentration (LC50) from USEPA’s Ecotoxicity Database. Using one-tenth of the lowest LC50 as the receiving water monitoring trigger is consistent with the Central Valley Regional Water Board’s Basin Plan approach when developing the daily maximum limitation for pesticides that do not have water quality criteria.

Comment 2.05:

- a. We agree that prior notification is an important requirement in general, but believe it to be completely inappropriate that *the discharger* is allowed to choose *which* website. Concerned residents shouldn’t have to scan the entirety of the Internet to learn of toxic discharges in their neighborhoods; rather, *all* planned discharges should be posted on a *single* website that can be easily found (preferably, the Board’s), and these data should be searchable *by location*, if possible.

- b. We also believe that the Spray Applications Permit requirement that such notice be given prior to scheduled applications (as opposed to once a year) is appropriate for inclusion in the Vector Control Permit and Aquatic Animal Invasive Species Control Permit as well – these pesticides are no less dangerous, and the public has no less of a right to know about them before they occur. Moreover, there should be a requisite lead-time before any application may occur (e.g., 2-4 weeks), so that dischargers cannot creatively “schedule” their applications to occur, say, the very next day.

Response:

- a. Comment noted. Staff will compile the list of websites as they are received and consider posting the list on the State Water Board’s website. Until such a system is set up, concerned residents shall save the website link, which public notice requirements may be posted on, that is listed on the discharger’s PAP. The PAP will be posted on the State Water Board’s website for a 30-day public comment period before approval.
- b. The draft permit requires dischargers to post the pesticide application schedule as soon as possible. Infestations may occur at any time at any location. Requiring public notice requirements prior to every application is infeasible.

Comment 2.06:

In the revised permits, the discharger’s PAP includes a mandate to use the least toxic pesticide (if an alternatives analysis indicates that pesticides must be used), and to use the lowest amount of pesticide effective.

We applaud the inclusion of this requirement as perhaps the single most important protective feature in each permit, although its utility will obviously depend on how rigorously it is enforced by the Board and others. We note that the requirement still stops short of mandating that the least toxic alternative be used in every case (i.e., pesticide use *only* as a last resort) – the permits only require that an alternatives analysis be *performed*, but do not appear to dictate a result. In practice, the implementation of the NPDES permitting program for pesticides discharged to and over water should lead both to the development of newer aquatic pesticides that do their work without leaving residues and to increased reliance on less toxic means of pest control. Especially since no specific “best technology” analysis appears to have been done in determining these BMPs (in lieu of setting numerical effluent standards), we submit that a more rigorous requirement is necessary to satisfy both the Clean Water Act’s “technology-forcing” mandate, see generally *Weyerhaeuser Co. v. Costle*, 590 F.2d 1011, 1025 (D.C. Cir. 1978); *NRDC v. EPA*, 859 F.2d 156, 208-09 (D.C. Cir. 1988), and the legislative intent of the Act’s drafters, see generally S. Rep. No. 92-414, at 99 (1971) (statement of Sen. Dole) (emphasizing the importance of “develop[ing] *alternative means* of pest, weed and fungal control,” reducing “[o]ff-target applications,” and developing “pesticides which *degrade after application and leave no toxic or hazardous after-products.*”) (emphases added), reprinted in 1972 U.S.C.C.A.N. 3668.

Response:

The purpose of the permit is to protect the beneficial uses of the State's receiving waters from biological and residual pesticide dischargers resulting from spray applications. The permit would require dischargers to determine and implement feasible non-toxic and least toxic alternatives to the selected pesticide application project in order to protect against potential water quality impacts. The development of best management practices is consistent with 40 CFR §122.44(k) and is intended to provide necessary flexibility in planning and implementing effective pesticide applications while protecting water quality. The permit prohibits discharges that cause or contribute to an exceedance of water quality objectives and contains monitoring provisions to determine whether additional measures are needed to meet the requirements of the permit.

In response to CDFA's comment and to be consistent with the Vector Control Permit, the sentence has been changed to read: If there are no alternatives to pesticides, dischargers shall use the least amount of pesticide necessary to effectively control the target pest.

Comment 2.07:

Standard Provisions. For "water[s] classified as Outstanding National Resource Waters or as ... impaired by unknown toxicity," the requirement that a project-specific antidegradation analysis be done before spraying has been removed.

It is unclear from the Board's Response to Comments why this provision has been removed, and what is the legal basis for doing so. The wisdom of removing protections for pristine waterbodies (such as Lake Tahoe and Mono Lake), or for those impaired waterbodies wherein the potential harm from the pesticide application is necessarily unknown, seems suspect. We request that the project specific antidegradation analysis requirement for these waterbodies be reinstated.

Response:

Staff removed the requirement in response to the request by the Lahontan Regional Water Board (Region 6).

Comment 2.08:

Special Studies, Technical Reports, and Additional Monitoring Requirements. We believe this to be an improvement over the previous version, which simply required the discharger to undertake "additional investigations."

- a. Still, nowhere do the permits indicate *who decides* what corrective actions a discharger has to take, and
- b. what the *enforcement mechanism* is for this requirement. We ask the Board to please clarify these points.

Response:

- a. The discharger has to provide the State Water Board what corrective actions it would take. The State Water Board's Division of Water Quality will determine whether the proposed corrective actions are adequate.
- b. Failure to comply with this requirement is a violation of the permit and may result in a State Water Board's enforcement action which can include a notice

of violation, an administrative civil liability complaint with a fine, or revocation of the Notice of Applicability.

Comment 2.09:

Corrective Action. In the SAP, the “corrective action” requirement for failing to “[u]se the lowest amount of pesticide produce per application and optimum frequency of pesticide applications necessary to control pests, consistent with reducing the potential for development of pest resistance” has been eliminated, and replaced with the VCP and AAISCP versions, which apply only when the discharger fails to “[f]ollow the [FIFRA] label instructions for the product used.”

We understand that the Board’s intent here could be to make the SAP provision even more stringent (e.g., if the relevant FIFRA labels already require the lowest effective use, and mandate even broader limitations), but we find it unwise to take the focus away from requiring the use of the *least amount of pesticide necessary* in every case. We respectfully submit that the Board should require corrective action to be taken under *both* circumstances.

Response:

Staff added the following language under Section IX.C.4.a.iii on page 23:

“Use the lowest amount of pesticide product per application and optimum frequency of pesticide applications necessary to control pests, consistent with reducing the potential for development of pest resistance;”

Comment 2.10:

Corrective Action Deadlines. The revised permits require any “corrective action” to be taken within 60 days after the mishap triggering it, and always prior to the next pesticide application.

We commend the Board for making this provision both stronger and more explicit.

Response:

Staff appreciates the support and recommendations.

Comment 2.11:

The definition of “residual pesticides” has been changed to “those portions of the pesticides that remain in the water *after* the application and its intended purpose (elimination of targeted pests) have been completed” (emphasis added).

- a. We submit that this interpretation is inconsistent with the ruling of the U.S. Sixth Circuit Court of Appeals in *National Cotton Council*, which struck down EPA’s earlier rule purporting to exempt applications of aquatic pesticides from the NDPEs permit requirement altogether. As that court noted, in expressly holding that pesticide residuals are “added” by the point source applications introducing them to water, the “pesticide residue or excess pesticide – even if treated as distinct from pesticide – is a pollutant” *at the moment of discharge*. *National Cotton Council of America v. EPA*, 553 F.3d 927, 940 (6th Cir. 2009); see also *id.* at 938 (“excess and residue pesticides have *exactly the same chemical composition* and are discharged from the same point source at *exactly the same time* as the original pesticide”) (emphasis added). This definition of “residual pesticides” is also inconsistent with multiple

appellate court rulings that Congress intended water pollution to be controlled through “point source” regulation *whenever feasible*, e.g., *United States v. Earth Sciences, Inc.*, 599 F.2d 368, 373 (10th Cir. 1979); that a point source “adds” a pollutant when it “introduces” that pollutant to the waters “*from the outside world*,” e.g., *Catskill Mountains Chapter of Trout Unlimited v. City of New York*, 273 F.3d 481, 491 (2d Cir. 2001); cf. *South Fla. Water Mgmt. Dist. v. Miccosukee Tribe of Indians*, 541 U.S. 95, 103 (2004); and that there is no implied NPDES exemption for discharges made for *allegedly beneficial purposes*, e.g., *Minnehaha Creek Watershed Dist. v. Hoffman*, 597 F.2d 617, 627 (8th Cir. 1979).

- b. Accordingly, the Board should clarify that no applicator otherwise covered by the permits may escape regulation by arguing that the pesticide in question has such a lengthy “intended purpose” timeframe that, in effect, it leaves no “residue.”
- c. Likewise, the Board should reject any implication that the protective provisions of these permits apply only at some indeterminate point “after” the discharge occurs. In particular, there is no basis – in law or in policy – for the notion that in-stream water quality standards may be violated during the pendency of a pesticide application, as certain portions of the permit suggest. See, e.g., AAISCP p. 14 ¶ IV.C (noting that the prohibition against causing or contributing to violations of water quality standards “shall apply *outside* the treatment area *during* treatment, and *in* the treatment area *after* treatment has been completed”) (emphasis added).

Response:

- a. Staff amended the definition of residual pesticides to include excess amounts of pesticides used during applications.
- b. Comment noted. Staff will evaluate the reasonableness of project length based on the treatment efficacy of the pesticide.
- c. For pesticides to perform their intended purpose, receiving water limitations only apply to residual pesticides.

Comment 2.12:

Monitoring Reports. We believe that allowing Discharge Monitoring Reports (“DMRs”) to be in a form “as agreed by the discharger and the [Board’s] Deputy Director,” instead of a standardized form can only lead to abuse, as shrewd applicators seeking to avoid scrutiny may attempt to report their monitoring data in a way that understates or obscures the true nature of discharges documented. Such ad hoc DMRs are also likely to be less readily understood by concerned residents who may wish to perform an oversight role in ensuring compliance. The Board should propose a standardized DMR form for public comment, and require that it be used by all dischargers (even if such a form cannot be developed in time to be included with the finalized permits themselves).

Response:

Staff will create a reporting form for dischargers to use to provide consistency in reporting and facilitate staff’s review of monitoring data.

Comment 2.13:

General Monitoring Provisions. In the Spray Applications Permit, dischargers are allowed to change monitoring locations and to not mention this change until the submission of their annual reports. In the other two permits, “All samples shall be taken at the anticipated monitoring locations specified in the Discharger’s or Coalition’s PAP, *unless otherwise specified.*”

Regarding the Spray Applications Permit, the previous version required *prior* notification of such changes in all cases. We submit that the previous requirement should be retained to ensure that dischargers do not propose one monitoring scheme at the beginning of each year only to ignore it for the rest of the year. Regarding the other two permits, it is unclear what “otherwise specified” means here. We believe the best course is to require that all monitoring be done only at the specific locations set forth in the PAP or APAP (as with Spray Applications), since this is the information that the Board and members of the public will have evaluated in deciding whether even to *allow* the initial discharge. To the extent that the Board believes Vector Control or Aquatic Animal Invasive Species Control applications to be of a different nature, the Board should clarify that any *potential* monitoring locations also must be spelled out in the discharger’s PAP or APAP, as other provisions of those permits seem to indicate. See VCP p. C-11 ¶ IV.A; AAISCP p. C-9 ¶ IV.

Response:

Staff deleted “unless otherwise specified” to avoid confusion.

Comment 2.14:

We have several questions regarding monitoring locations, and how they relate to the requirements set forth in the permits themselves.

- a. Is the “location that receives the most applications” the same as a “representative monitoring location” (and, if these are separate concepts, where in the permit are the provisions requiring monitoring at the “location that receives the most applications”)?
- b. Does the monitoring scheme described in the above paragraph apply only to chemical testing, or does it apply to toxicity testing as well?
- c. How exactly does one determine the “location that receives the most applications” (e.g., is it based on a specific historical time period)?
- d. Why is it true that “the location that receives the most applications will likely show the highest concentrations of residuals” and that “areas that receive fewer applications would also show no exceedance of receiving water limitations” (e.g., cannot areas receiving fewer applications also receive a greater absolute quantity of pesticides)?
- e. Are there not reasons to require monitoring at “the location that receives the most applications,” as well as at other locations, *beyond* ensuring that a numerical receiving water limitation is not exceeded (e.g., a *narrative* receiving water limitation requiring “no toxics in toxic amounts,” compliance with which may depend on what aquatic animals are present in a given area)?

Under state and federal law, the monitoring provisions in an NPDES discharge permit must be sufficient to allow agency enforcers and concerned citizens to determine readily whether the discharger is in compliance with applicable permit terms, including prohibitions against violating numeric and narrative in-stream water quality standards. As the above questions suggest, it remains unclear precisely how the Board envisions the “representative monitoring” provisions to operate once the permits are in effect. We request that the Board please clarify these monitoring provisions.

Response:

- a. The “location that receives the most applications” is one of the “representative monitoring locations.”
- b. Currently, the monitoring scheme only applies to chemical testing because dischargers are not required to perform toxicity monitoring.
- c. The “location that receives the most applications” shall determined be based on the expected pesticide application during the life of this permit.
- d. Comment noted. The monitoring and reporting program suggests that the discharger chose the “worst case or high use areas” as representative monitoring locations. The “high use area” doesn’t necessarily have to be based on number of applications; it can also be based on the amount of pesticide applied.
- e. Undoubtedly, there are reasons to require monitoring at all locations because water chemistry, aquatic life, pesticide applications differ at different locations. However, monitoring at all locations is also impractical and may produce redundant results. Staff believes that monitoring at representative monitoring locations for each active ingredient in each environmental setting is a good start to determine if more monitoring is required.

Comment 2.15:

Sample Types. In the revised Spray Applications Permit, the Board appears to have removed any requirement for “*post-event*” visual, physical, or chemical monitoring. The revised Vector Control and Invasive Species Permits still require “post-event” monitoring, but only whenever *the discharger* determines, apparently on a case-by-case basis, that the pesticide “project” is “complet[e].” The additional requirement in previous permit drafts that the discharger must perform this monitoring “within one week after the application event” has been removed.

Regarding the Spray Applications Permit, we submit that post-event monitoring is just as important for some of the dangerous pesticides covered by that permit (e.g., malathion, naled, carbaryl), as the other two permits. Indeed, this permit only applies to *government* applicators like the USDA Forest Service and the CDFA (SAP p. 5 ¶ II.B) – why should these entities be subject to *less* restrictive protections than *private* applicators? We request that the Board reinstate the post-event monitoring requirement in the SAP.

Regarding all three permits, we believe that removing an absolute timeframe for post event monitoring invites abuse. If the discharger is allowed to determine when “project completion” occurs, he or she will simply wait to perform any

sampling until long after any environmental harm has occurred, or the pesticide has fully dissipated (regardless of whether that pesticide is still performing any pest elimination function). See also Comment #11, above. We ask that the one-week post-event monitoring timeframe be reinstated.

Response:

In the Spray Applications Permit, all permitted pesticide products are labeled for terrestrial use only. Any pesticide discharge to receiving waters is considered a discharge of pollutant. If a sample from an event monitoring shows the discharge exceeds the permit limitation for malathion or monitoring triggers for the other active ingredients, it would already require additional actions on the discharger. Thus, post-event sampling is unnecessary. Deleting post-event monitoring actually made the permit more stringent.

Comment 2.16:

Toxicity Testing Requirements. The staff recommends five different options for toxicity testing, including performing no such testing, but recommends Option D for each permit. Option D appears to provide that “after a discharger has shown six consecutive samples of no toxicity, monitoring for toxicity will be discontinued,” until “[a] new application method is used, a BMP is changed, or an alternative product is used.” E.g., SAP, Resp. to Cmt. #4.3, p. 28. Unlike earlier versions, Option D also appears to allow dischargers to forsake taking further “background” samples if the first sample comes back negative.

As we stated in earlier comments, we strongly urge the Board to require some form of toxicity testing in these permits. These pesticides are *known toxicants* that can cause serious water quality problems and other adverse environmental effects, but – unlike for most industrial point source discharges – no “end-of-pipe” treatment technologies or numerical effluent limitations are being required or imposed to ameliorate these harms. Moreover, given that the permit only requires chemical testing for *active* pesticide ingredients, a rigorous toxicity monitoring scheme will be crucial in protecting against the risks posed by *inert* ingredients (which can be greater than the risks posed by active ingredients), and by *additive or synergistic* toxicological effects (both with other pesticides and with other constituents in the receiving water). See generally EPA Office of Pesticide Programs, Pesticide Regulation Notice 97-6 (Sept. 17, 1997), available at http://www.epa.gov/opppmsd1/PR_Notices/pr97-6.html; Letter from U.S. Fish & Wildlife Service to EPA re: Atrazine Risk Assessment (June 27, 2002), pp. 2-3, available at <http://www.eswr.com/104/fwsatrazineletter.pdf>.

As for Option D specifically, we are mindful that the Board wishes not to impose undue burdens or meaningless monitoring requirements on pesticide applicators. At the same time, we believe that *some* form of periodic toxicity monitoring should be required even where a discharger is able to establish a modest track record of not causing or contributing to toxic conditions. This is good policy for several reasons. First, the underlying characteristics of the waterbody may change over time, which may give rise to additive or synergistic toxic effects not captured by earlier sampling. Second, further toxicity monitoring ensures that the discharger does not, intentionally or inadvertently, alter the methods or chemicals applied in a way that may be deleterious to water quality. Third, an ongoing

toxicity monitoring requirement allows private citizens concerned about discharges in their local waterbodies to perform their own in-stream monitoring, and to cross-check the results they obtain with what the discharger has reported to the Board, as an effective and supplemental assurance that relevant receiving water limitations are not being violated.

Lastly, given the need for an accurate assessment of toxicological risks, we urge that the more stringent requirement on “background” sampling from the earlier draft permits be retained.

Response:

See Response to Comment 1.01.

3. Comment Letter 3 – California Department of Food & Agriculture

Comment 3.01:

Add the Palm Weevil Program description to Attachment D.

Response:

Staff added the description to Attachment D on page D-13.

Comment 3.02:

Make following revisions to Section VIII.C. Pesticide Application Plan (PAP) of Limitations and Discharge Requirements on page 17:

“If there are no efficacious alternatives to pesticides, Dischargers shall diligently seek out and use a pesticide product that will provide acceptable efficacy and minimal environmental toxicity.”

Response:

Staff replaced the existing language with the following:

“If there are no alternatives to pesticides, dischargers shall use the least amount of pesticide necessary to effectively control the target pest.”

Comment 3.03:

Section VIII.E. Pesticide Log in Limitations and Discharge Requirements on page 19: CDFA suggest replacing word “treated” with “impacted”:

The names of the water bodies impacted (e.g., canal, creek, lake, etc);

Response:

Staff made the suggested change.

Comment 3.04:

CDFA suggests adding four definitions as stated below to Attachment A:

Biological pesticide - A chemical which is derived from plants, fungi, protozoa, bacteria, or other non-man-made synthesis and which can be used for pest control. These agents usually do not have toxic effects on animals and people and do not leave toxic or persistent chemical residues in the environment. (See From DPR Glossary <http://www.epa.gov/pesticides/glossary/index.html>)

Discharge Monitoring Report - The form used (including any subsequent additions, revisions, or modifications) to report self-monitoring results by NPDES permittees. DMRs must be used by approved states as well as by EPA. (See EPA NPDES Glossary <http://cfpub.epa.gov/npdes/glossary.cfm#R>)

Self Monitoring - Sampling and analyses performed by a permittee to determine compliance with a permit or other regulatory requirements.

Receiving Water - The "Water of the United States" as defined in 40 CFR 122.2 into which the regulated stormwater discharges.

Response:

Staff added three definitions with some modification as indicated below. Staff did not add definition of Discharge Monitoring Report because the draft permit does not have the phrase of Discharge Monitoring Report:

Biological pesticide - A chemical which is derived from plants, fungi, protozoa, bacteria, or other non-man-made synthesis and which can be used for pest control.

The last sentence is not added because it is not in DPR's definition.

Self Monitoring - Sampling and analyses performed by a Discharger to determine compliance with a permit or other regulatory requirements. All laboratory analyses must be conducted by a laboratory certified by the Department of Health Services.

Staff replaced "permittee" with "Discharger" to be consistent with other parts of sections of the draft permit. Staff added the certified laboratory requirement as required by California Water Code section 13176.

Receiving Waters - See Waters of the US.

Staff revised this definition to be consistent with the other pesticide permits.

Comment 3.05

CDFA requests making deletion as shown in red text below in Section IV. STANDARD PROVISION – RECORDS, Attachment B, page B-3

"The Discharger shall retain records of all monitoring information, including all calibration and maintenance records, ~~and all original strip chart recordings for continuous monitoring instrumentation,~~ copies of all reports required by this General Permit, and records of all data used to complete the application for this General Permit, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Deputy at any time. (40 C.F.R. §122.41(j)(2).)"

Response:

Staff made the requested change.

Comment 3.06:

Please add the following language to the beginning of Asian Citrus Psyllid in Section I.A.3 of Fact Sheet on page D-12:

"The Asian citrus psyllid (ACP), an aphid-like insect, is a serious pest of all citrus and closely-related plants because it can transmit the disease huanglongbing (HLB) when it feeds on the plants' leaves and stems. HLB is the most devastating disease of citrus in the world. Symptoms of HLB include yellow shoots, leaf mottle, small upright leaves and lopsided fruit with a bitter flavor. Infected trees decline in health, produce inedible fruit and eventually die. There is no cure for the disease and infected trees must be removed and destroyed to prevent further spread of HLB. Establishment of ACP and HLB would cause

economic losses via direct damage to citrus plants and quarantine restrictions designed to mitigate the spread of ACP. California has a \$1.88 billion citrus industry. If the ACP begins to transmit the disease HLB, the entire industry could be at risk. In one recent study in Florida, the presence of HLB increased citrus production costs by 40%.”

Response:

Staff added the suggested description on ACP.

Comment 3.07:

CDFA requests to delete description on aerial application from its Light Brown Apple Moth (LBAM) program in Section I.A.3. b. of the Fact Sheet on page D-15 as indicated in red text below:

“The CDFA control and suppress strategy is to delimit and contain LBAM populations and is expected to take 3-5 years to achieve. The strategy will require ongoing monitoring of the infestation, suppression at the edges of the populations, and population reduction in areas with a higher LBAM population density. The control and suppression strategy will require ~~both ground and aerial~~ application of several control techniques: mating disruption (using pheromones), insecticide treatments, sterile insects, and other techniques such as biological control (biocontrol) (USDA 2008a¹). Products containing the following active ingredients are used in the LBAM eradication program: spinosad A and D, and Btk.”

Response:

Staff made the suggested changes.

Comment 3.08:

CDFA requests adding European Grapevine Moth (EGVM) pheromone blends in Section VI.B.1. a. Microbial Insecticides, Attachment D, page D-41 as shown in red text below below:

“iv. Pheromones Light Brown Apple Moth (LBAM) Pheromone Blend and European Grapevine Moth (EGVM) Pheromone Blends

LBAM and EGVM pheromone blends consists of two synthetic straight chained lepidopteran pheromones (SCLPs). Lepidoptera is a large order of insects that includes moths and butterflies. The SCLPs are pheromones (including identical or substantially similar synthetic compounds) produced by a member in the order Lepidoptera.

The LBAM and EGVM pheromone blends are used to disrupt the mating by a non-toxic mode of action.

According to 40 C.F.R. §158.2050, toxicology and environmental data for SCLP manufacturing products are not required. In addition, 40 C.F.R. §158.2060 states that toxicology and environmental data requirements for end use products are greatly reduced.

¹ United States Department of Agriculture (USDA). 2008a. Treatment program for light brown apple moth in California. Environmental Assessment, February 2008. 46 pp.

USEPA's reviews during the SCLP product registration process confirmed that no risks to human health are expected from the use of SCLPs based on the low toxicity in animal testing and the expected low exposure to humans. Furthermore, adverse effects on non-target organisms are not expected because these pheromones are released in very small quantities in the environment and act on a select group of insects, such as LBAMs. Appropriate precautionary labeling of end use products will further minimize potential exposure and mitigate risk to non-target organisms. Based on the above considerations, this General Permit does not contain a Receiving Water Monitoring Trigger and does not require monitoring for LBAM or EGVM pheromone blend."

Response:

Staff made the changes as requested.

Comment 3.09:

CDFA requests adding following four more insecticide products to Attachment E:

Product Name/ Trade Name	Active Ingredient	Manufacturer	EPA Number
Safari 20 SG Insecticide	Dinotefuran	Valent USA Corporation	33657-16-59639
Merit 2F	Imidacloprid	Bayer Environmental Science	432-1312
CoreTect Tree and Shrub	Imidacloprid	Bayer Environmental Science	432-1457
Merit 0.5 G	Imidacloprid	Bayer Environmental Science	432-1328

Response:

Staff only added the products Safari 20 SG Insecticide and Merit 2F because we did not have time to review the other two products. We will add them through permit amendments after permit adoption.