Response to Comments Received by August 21, 2012

Draft Statewide General National Pollutant Discharge Elimination System (NPDES) Permit for Residual Pesticide Discharges to Waters of the United States from Algae and Aquatic Weed Control Applications

State Water Resources Control Board
January 16, 2013

Contents

A. Comment Letters Received

Letter No.	Affiliation	Representative
1	Association of California Water Agencies (ACWA)	David Bolland
2	Orange County Water Districk	Nira Yamachika
3	The Essential Public Information Center, Upper Lake	Betsy Cawn
4	Riverside Coumnty Flood Control and Water Conservation District	David Garcia
5	Big Valley Rancheria Band of Pomo Indians	Sarah Ryan
6	General Public	Scott Cressey
7	Napa County Flood Control and Water Conservation District	Richard Tomasser

B. Responses to Comments

1. Comment Letter 1 – Association of California Water Agencies (ACWA)

ACWA provided comments in a cover letter and in the draft General Permit itself. The comments in the permit itself are shown in bracketed numbers such as [SF2].

Comment 1.1
Typically, aquatic herbicide applications need to occur as early as April 1st, which would require a permit package submittal on or before January 1, 2013. If the new permit is not available until December 1st, this leaves only 30 days for permittees to prepare and submit a permit package by January 1st in time for the 90 days to elapse before the first application on April 1st. It also provides SWRCB and RWQCB staff only 30 calendar days during the holiday season to review as many as 120 permit packages.

Solutions include making provisions for issuance of a provisional NOA by SWRCB staff, or a provision to administratively extend the old permit until coverage is obtained under the new permit Another option would be to grandfather the old permit (as with the Construction General Permit adopted on September 2, 2009). Assuming SWRCB adopts the Weed Permit in November 2012, we would recommend an effective date of September 2013 to allow transition to the new permit and to allow water agencies to continue the necessary applications for weed and algae control.

Response 1.1
The draft General Permit will be proposed for adoption by the State Water Board at its February 19, 2013 meeting. If adopted as proposed, it will become effective on December 1, 2013. The purpose of the delay is to allow: (1) enrollees under Water Quality Order No. 2004-0009-DWQ to have continued permit coverage throughout the 2013 application season while preparing their new application for coverage under this General Permit; (2) new enrollees to prepare and submit their applications as well; and (3) Water Boards' staff to process the applications and issue Notices of Applicability.

Comment 1.2
The Draft Aquatic Weed Control Permit should clarify the roles of State Water Board and Regional Water Board staff in the review and approval of permit packages in order to reduce potential permit processing delays that may arise. A solution would be for SWRCB to take the lead and coordinate with all RWQCBs proactively.

Response 1.2
Staff amended Fact Sheet Section II.A of the General Permit to clarify State and Regional Water Board staff roles.

Comment 1.3 [SF2]
Language that identifies the time allotted to issue an NOA or a provisional NOA is needed. Example: "An NOA or a provisional NOA will be issued on or before

90 days have elapsed since submittal of complete permit package. If a submittal is deemed incomplete, SWRCB staff will notify the permittee within 30 days of submittal." [Permit item II.C.]

Response 1.3
See Response 1.1. Section II.C, Limitations and Discharge Requirements, and Section II.A.3, Fact Sheet provide the process and timing for review and public comment on an Aquatic Pesticide Application Plan submitted as part of an application for coverage and subsequent issuance of an NOA. Within 90 days of receipt of an application, the State Water Board's Deputy Director of the Division of Water Quality (Deputy Director) will either issue a Notice of Applicability (NOA) or deny the application.

Comment 1.4 [SF3]
Is this Table 1? Values for Penoxsulam, Imazapyr, Triclopyr and Sodium Carbonate Peroxyhydrate are needed. If not available, so state and list rationale why. [Permit item VI.A. Table 3].

Response 1.4
This is the correct Table 3. Tables 1 and 2 are on page 1. Table 3 lists only constituents that have receiving water limitations. Table 4 lists constituents that have receiving water monitoring triggers (Imazapyr and Triclopyr). Penoxsulam and Sodium Carbonate Peroxyhydrate do not have receiving water limitations or triggers, thus, they are not listed in either Table 3 or Table 4. Section VI of the Fact Sheet (Attachment D) provides the rationale for receiving water limitations and triggers.

Comment 1.5 [SF4]
All these values are based on the most restrictive, not necessarily applicable designated beneficial use. This is different from the previous permit where the beneficial use determined the WQO. Need to add a column for Beneficial Use Designation and assign an Inst. Max value specific for that particular designation. [Permit item VI.A. Table 3]

Response 1.5
The Water Quality Control Plans or Basin Plans require implementing the most stringent applicable objective necessary to ensure that surface water and groundwater do not contain chemical constituents, toxic substances, radionuclides, or taste and odor producing substances in concentrations that adversely affect domestic drinking water supply, agricultural supply, or any other designated beneficial use for a specified water body. The beneficial uses have been added to Table 3 in order to clarify this. The most stringent beneficial use applicable to a water body will be applied to determine compliance with the permit.

Comment 1.6 [MB5]
This is an example of ignoring the MUN (70 ug/L) and "Other than MUN, Warm or Cold (780 ug/L) beneficial use designation shown on page 8 of the previous

permit. The receiving water limitation must be consistent with the designated beneficial use [Permit item VI.A. Table 3].

Response 1.6
See Response 1.5.

Comment 1.7 [MB6]
What is this? Cite reference [Permit item VI.A. Table 3]

Response 1.7
The citation has been changed to USEPA Water Quality Criteria, 1986.

Comment 1.8 [SF7]
Suggest biotic ligand model (BLM) model as an alternative and a more accurate tool. It takes into account not just hardness (as the formula to the left does), but also the critical parameters of pH and dissolved organic carbon. Accordingly, it gives a much more accurate picture of copper behavior. [Permit item VI.A, Table 3]

Response 1.8
Comment noted. Neither the California Toxics Rule (CTR) nor the State Water Board Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP) includes BLM as a method for calculating metals criteria. When the BLM is added to either the CTR or the SIP as a method to calculate copper concentrations, the permit will be amended to include BLM.

Comment 1.9 [SF8]
This is an example of the MUN designation being applied to all water bodies. If a WQO does exist for Warm or Cold and this is where the material is used, the MUN designation is not applicable. Need to add a column for Beneficial Use Designation and assign a Inst. Max value for that particular designation. [Permit item VI.A. Table 3]

Response 1.9
See Response 1.5.

Comment 1.10 [MSB9):
Insert: “In the absence of Receiving Water Limitations” [Permit item VII.]

Response 1.10
Staff has inserted the recommended language.

Comment 1.11 [MB10]
Page 7, Section VII. “BMPs measures” is the incorrect syntax. Suggested change: “BMP measures.”

Response 1.11
Staff deleted the word "measures."

Comment 1.12 [MB11]
State status of the other 10 herbicides and if not applicable, so state and give rationale. [Permit item VII.]

Response 1.12
See Response 1.4.

Comment 1.13 [SF12]
Add language that states that the Permittee will be notified within 30 days of any deficiencies. [Permit item VIII.C.]

Response 1.13
The APAP will be posted on the State Water Board's website for a 30-day comment period. Thus, we may not be apprised of all of potential or claimed deficiencies in the APAP until the comment period has ended. However, as a standard operating procedure, staff will review the APAP within 30 days of its receipt and notify the applicant of any deficiencies found by staff during the review.

Comment 1.14 [SF13]
Asking for the APAP to describe the amount of material that will be applied is not possible as this is determined just before application and can range widely depending on many factors. Suggestion: strike reference to "amount." [Permit item VIII.C.6]

Response 1.14
Staff deleted "*and amount*" in the sentence. However, staff added the type and amount of algaecide and aquatic herbicide used to be reported in Section VIII.E, Algaecide and Aquatic Herbicide Application Log.

Comment 1.15 [SF14]
A minimum amount is not always the best choice as this may result in re-emergence. Suggestion: Replace "minimum" with "appropriate rate of application consistent with product label requirements" [Permit item VIII.C.11.b]

Response 1.15
Staff modified the language as shown below:

"If there are no alternatives to algaecides and aquatic herbicides, Dischargers shall use the minimum amount of algaecides and aquatic herbicides that is necessary to have an effective control program and consistent with the algaecide and aquatic herbicide product label requirements."

Comment 1.16 [SF15]
Need location and time specificity. Example: When acrolein is used accordingly to label direction, fish kill may result in the treated water body. Suggestion: Add "outside the treatment area" after "fish kill". [Permit item VIII.C.11.e]

Response 1.16
The requirement to provide a description of measures that will be used for preventing fish kills when using algaecides and aquatic herbicides applies to all

algaecides and aquatic herbicides, not just to acrolein. Since acrolein is highly toxic to fish and wildlife, it is not allowed for use in drainage areas that discharge to ponds, lakes, streams, tidal marshes, and estuaries. However, other aquatic herbicides are allowed for direct applications to these water bodies. Thus, the requirement is appropriately worded.

Comment 1.17 [SF16]
See earlier comment. Suggestion: Change minimum to "appropriate rate of application consistent with product label requirements" [Permit item VIII.C.12.a]

Response 1.17
See Response 1.15.

Comment 1.18 [SF17]
Reference and preference to "limited life span is not appropriate. In some cases, a long lasting material is desirable. Example: Fluridone applied at a low concentration and maintained overtime is an efficacious method to treat submersed weeds. Suggestion: End sentence at "application." [Permit item VIII.C.12.b]

Response 1.18
Concur. Staff made the suggested edit.

Comment 1.19 [SF18]
This language may not be consistent with the 90 day approach presented earlier. Example: If SWRCB staff don't get a review done before the closure period ends, an NOA must be issued.

Suggestion #1 Add "or the completion of staff review, whichever comes first" after "….comment period."

Suggestion #2 Add" provisional NOA" after "NOA" on line 3 of this paragraph.

Potential timing issue: The new permit will be considered by the SWRCB in Nov 2012 and that the new permit requires that a permit package be submitted 90 days before aquatic herbicide application. Recognize that typical aquatic herbicide applications can occur as early as April 1 which would require a permit package submittal on or before Jan 1. If the new permit is not available until Dec 1, this leaves only 30 days for permittees to prepare and submit a permit package by Jan1 in time for the 90 days to elapse before the first application on April 1.

This would mean that Board staff would have only 30 calendar days during the holiday season to review as many as 120 permit packages. Is this realistic? [Permit item VIII.D.]

Response 1.19
See Responses 1.1 and 1.3[MJW1].

Comment 1.20 [SF19]
Awkward. Suggest: “To reduce the impacts to water quality, Dischargers shall consider and if feasible implement alternatives to the use of algaecides and aquatic herbicides that are identified in the APAP.” Global change: replace “chemical” with “algaecide and aquatic herbicide”. [Permit item IX.A.8.]

Response 1.20
Concur. Staff made the suggested edits.

Comment 1.21 [SF20]
Remove reference to yearly as some instruments do not call for this. Suggestion: Replace “at least yearly” with “consistent with manufacturer's recommendations." [Permit item IX.A.10.e.]

Response 1.21
Concur. Staff made the suggested edit.

Comment 1.22 [MSB21]
Add “one or more of the following:” in front of “revising”. [Permit item IX.C.4.a.]

Response 1.22
The sentence has been revised to read:

“The investigation shall include, but not be limited to evaluating the need to implement one or more of the following actions: revising and improving the existing BMPs, revising the mode of application, using less toxic algaecide and aquatic herbicide products, or selecting alternative methods for algae and aquatic weed control, etc.”

Comment 1.23 [SF22]
The toxicity of an herbicide may have nothing to do with its detection in the receiving water. Further, the selection of less toxic herbicide doesn’t mean it will not be detected, and if detected, still not toxic to some degree. Suggestion: replace “less toxic” with “different (i.e., less mobile, more efficacious, etc)” [Permit item IX.C.4.a.]

Response 1.23
The intent of the investigation is to determine the cause of exceedance and to evaluate alternatives including using less toxic algaecides and aquatic herbicides that would not result in exceedance of receiving water limitations or triggers. The General Permit does not mandate the use of “less toxic” pesticides; it only requires that their use as alternatives to the pesticides that cause the exceedance be evaluated.

Comment 1.24 [SF23]
See previous comment on “minimum.”. Suggestion: Replace “lowest amounts” with “appropriate rate of application consistent with product label requirements.” [Permit item IX.C.5.a.iii.b)]

Response 1.24
Staff amended the language consistent with Response 1.15.

Comment 1.25 [SF24]
See previous discussion. Suggestion: Replace "precise minimum quantity" with "appropriate rate of application consistent with product label requirements for" [Permit item IX.C.5.b.]

Response 1.25
See Response 1.15.

Comment 1.26 [MSB26]
Clarify. Suggestion: Replace "added to pesticides during" with "mixed with pesticides prior to…" [Attachment A definition for "**Adjuvants"]**

Response 1.26
Concur. Staff made the suggested edit.

Comment 1.27 [MSB27]
Hard to read and unclear. Reword. Suggest change to: ….Includes impacts that occur within Waters of the US on non-target organisms as a result of algaecide or aquatic herbicide residue. These effects are to organisms not listed as controlled on the product label or not expected to be present. Examples of these effects may include: [Attachment A definition for "**Adverse and Toxic Effect**"]
Response 1.27
Concur. Staff made the suggested edit.

Comment 1.28
Need consistent use of terms. Replace "aquatic pesticide" with "algaecide and aquatic herbicide" (Global change)

Response 1.28
Concur. Staff made the suggested edits.

Comment 1.29 [SMB29]
See previous comment. Use consistent terminology

Response 1.29
Concur. Staff made the suggested edit.

Comment 1.30 [SF30]
Include a diagram of flowing water treatment area. [Attachment A definition for "**Treatment Area"**]

Response 1.30
The sampling locations for both flowing and static waters are described in the Attachment C, Section II.B.

Comment 1.31
Delete. Unused. [Attachment A definition for "**Biological Pesticide**"]

Response 1.31
Concur. Staff made the suggested edit.

Comment 1.32 [SF32]
Add all other beneficial uses and make description, definition, and add abbreviation consistent with Basin Plans or SWRCB definitions. Note these definitions will be needed in the table per comments on beneficial use designation. [Attachment A definition for "**Cold Freshwater Habitat**"]

Response 1.32
Staff deleted all definitions for beneficial uses because they are already defined in Basin Plans.

Comment 1.33 [MSB 33]
See previous comments on terminology consistency [Replacing "pesticide" with "algaecide and aquatic herbicide"].

Response 1.33
Concur. Staff made the suggested edit.

Comment 1.34 [MSB34]
Make terminology consistent. Use "algaecides and aquatic herbicides"

Response 1.34
Concur. Staff made the suggested edit.

Comment 1.35 [MS35]
See comment above [Replacing "pesticide" with "algaecide and aquatic herbicide"].

Response 1.35
Concur. Staff made the suggested edit.

Comment 1.36 [MB36]
Delete "s" [Attachment A, definition for "Treatment Area", delete "s" in phrase "aquatic weed control~~s~~"]

Response 1.36
Concur. Staff made the suggested edit.

Comment 1.37 [MSB37]
Not always true as achieving injury to stunt or reduce rate of growth is sometimes all that can be done. Suggest that "lethal doses" be replaced with "an appropriate rate of application consistent with product label requirements" [Attachment A, definition for "Treatment Area"]

Response 1.37
Concur. Staff made the suggested edit.

Comment 1.38 [MB38]
This sentence is a little confusing. Suggest delete and change to "It is the responsibility of the Discharger to define the treatment area for each algaecide and aquatic pesticide application." [Attachment A, definition for "Treatment Area"]

Response 1.38
Concur. Staff made the suggested edit.

Comment 1.39 [MB39]
Page A-4, Attachment A, Definitions, Warm Freshwater Habitat and Water Contact Recreation. Good to see these. Add others as appropriate per comments to tables regarding beneficial use designation.

Response 1.39
See Response 1.32.

Comment 1.40 [SF40]
Do you mean 1 through 6, not a through f? [Attachment A definition for "Waters of U.S."]

Response 1.40
Yes, staff made the suggested edit.

Comment 1.41[MSB41]
Replace "will" with "would." [Attachment C item II.B.2. Event Monitoring]

Response 1.41
Concur. Staff made the suggested edit.

Comment 1.42 [SF42]
Inconsistent use of terms. Suggest replacing the first sentence with: "During event and post event sampling, a log shall be kept of the water conditions within the treatment area." [Attachment C, the short paragraph below item III.A.9.]

Response 1.42
Table C-1 requires visual monitoring during all three sampling events including background, event, and post-event sampling, not just event and post-event sampling. No change is necessary.

Comment 1.43 [SF43]
This is: inconsistent with USGS recommendations. Recommend that "or at mid water column depth if the depth is greater than approximately 3 ft." [Note 4 for Table C-1]

Response 1.43
Concur. Staff made the suggested edit.

Comment 1.44 [SF44]
Clarify that no sampling for sodium carbonate Peroxyhydrate is required. [Note 7 for Table C-1]

Response 1.44
Only the parameters requiring sampling are listed. Sodium carbonate peroxyhydrate is not listed as one of the parameters. Therefore, no sampling is required for this constituent.

Comment 1.45 [SF45]
This report is not defined. Suggest that "summary monitoring report" is replaced with "data used to prepare the SMR" [Attachment C, item IV.A.2.]

Response 1.45

Revised as indicated in red text: "*Upon written direction ~~request~~ of the State Water Board or the ~~appropriate~~ Regional Water Board, the Coalition or Discharger shall submit ~~a summary monitoring report.~~ information as specified."*

Comment 1.46 [MSB46]
Delete "showing" and insert before "map" the following: "or table describing"….[Attachment C, item IV.B.e.]

Response 1.46
It will be difficult to identify the treatment areas with only narrative descriptions. Thus, a map is necessary to show the location of each treatment area.

Comment 1.47 [MSB47]
Remove asterisk or define. [Attachment C, item IV.B.f]

Response 1.47
Application Event is defined in Attachment A under the definition of Application Area.

Comment 1.48 [SF48]
Delete. This is a reiteration of section IV.B.1.b above. [Attachment C, item IV. B.1.i].

Response 1.48
Concur. Staff made the suggested edit.

Comment 1.49 [SF49]
Delete. This is a reiteration of section B.1.f above. [Attachment C, item IV.B.1.j]

Response 1.49
See Response 1.50 below.

Comment 1.50 [SF50]
This can be an enormous amount of data. Suggest insert 'Summary of " in front of "algaecide." . [Attachment C, item IV.B.1.j]

Response 1.50
Concur. Section IV.B.1.j now reads: "Summary of algaecide and aquatic herbicide application log."

Comment 1.51 [MSB51]
Insert "If so notified" in front of "The". [Attachment C, item IV.B.3.]

Response 1.51
Per 40 CFR 122.41(l)(4)(ii), the permittee must submit all monitoring results, including those results from monitoring activities that are beyond the minimum monitoring requirements specified in the General Permit.

Comment 1.45 [SF52]
From a practical standpoint, most labs do not report estimates when <RL and >MDL. If <RL, report typically indicates ND (not detectable). [Attachment C, item IV.C.2.]

Response 1.52
This is required by SIP section 2.4.4. Reporting Protocols.

Comment 1.53 [MSB53]
If these terms are used as synonyms, then this needs either to be defined early or the term “Coalition or Discharger” needs to globally replace Discharger. [Attachment C, item IV.D.1.]

Response 1.53
As defined in Attachment A, a coalition is a collaborative monitoring partnership of dischargers to develop a monitoring plan that addresses the monitoring requirements. A coalition is only responsible for complying with the monitoring and reporting requirements, not the other requirements of the General Permit which an individual discharger must still comply with. Thus, the term "Coalition” must not be replaced with “Discharger.”

Comment 1.54 [SF54]
This text supports the use of WQOs that are specific to designated beneficial uses as called for by our comments in the tables. No change needed. [Attachment D, item V.B.2.b]

Response 1.54
Comment noted.

Comment 1.55 [SF55]
See comment above related to WQOs as per the beneficial use and this being used in the tables. No change needed. [Attachment D, item VI.B]

Response 1.55
Comment noted.

Comment 1.56 [MSB56]
Remove or define asterisk. [Attachment D, item VI.B]

Response 1.56
Staff deleted the asterisk.

Comment 1.57 [SF57]
This statement seems true only in the absence of a designated beneficial use. WQOs cannot be assigned indiscriminately. [Attachment D, item VI.B]

Response 1.57
Use of the most stringent objective results in the protection of not just one or a handful of beneficial uses, but all of the beneficial uses of a specific receiving water body. See Response 1.5.

Comment 1.58 [SF58]
The range of WQOs based on the designated beneficial use should be presented. Default to the lowest WQO is unnecessarily conservative and not consistent with the concept of WQOs specific to a particular designated beneficial use. [Attachment D, item VI.B.1]

Response 1.58

See Response 1.5.

Comment 1.59 [SF59]
All these WQO values are based on the most conservative, not necessarily applicable designated beneficial use. This is different from the previous permit where the beneficial use determined the WQO. See previous comment. Need to add a column to identify the designated beneficial use-specific WQO. [Attachment D, Table D-2]

Response 1.59
See Response 1.5.

Comment 1.60 [MSB60]
See all applicable comments on Table 3. [Attachment D, Table D-2]

Response 1.60
See Response 1.5.

Comment 1.61
See earlier Table 1 [Table 3] comment on source. [Attachment D, Table D-2]

Response 1.61
See Response 1.5.

Comment 1.62 [MSB62]
See earlier Table 1 comment on the use of the BLM. [Attachment D, Table D-2]

Response 1.62
See Response 1.8.

Comment 1.63 [SF63]
Do all RWQCBs have the same dissolved oxygen (DO) objective? Clarify as needed. [Attachment D, item VI.B.1.]

Response 1.63
The General Permit's DO limitation is stated narratively because DO objectives differ per water body. It is infeasible for the General Permit to list all of the US waters in California and provide the DO objectives for each of them. Thus, the Discharger must get the DO objective for the water that they will be treating with algaecide and aquatic herbicide from the Regional Water Boards' Basin Plans to see if the discharge is in compliance with the DO limitation for that water body.

Comment 1.64 [MSB64]
Add "EPA" [Attachment D, item VI.B.2.]

Response 1.64
Staff added "U.S.EPA."

Comment 1.65 [SF65]
If this is requested, then so state in the appropriate M&RP table (it is not currently included). [Attachment D, item VI.B.2.c]

Response 1.65

This is an oversight. Staff changed the General Permit language to read: "*Therefore, this General Permit does not have a monitoring trigger or a monitoring requirement for sodium carbonate peroxyhydrate.*" Due to the addition of imazamox as an active ingredient, the discussion on sodium carbonate peroxyhydrate is now in Attachment D, item VI.B.2.d.

Comment 1.66 [MSB66]
Not applicable to this permit. Delete. Global. [Attachment D, item VII.B. refers to "biological pesticide"]

Response 1.66
Concur. Staff made the suggested edits.

Comment 1.67 [SF67]
Remove reference to "and/or toxicity" as this is not part of the existing proposed permit. [Attachment D, item VIII.E.]

Response 1.67
Concur. Staff made the suggested edits.

Comment 1.68 [MSB68]
Delete the asterisk or define the term. [Attachment D, item X.]

Response 1.68
Attachment A contains a definition for "Treatment Area."

Comment 1.69 [SF69]
See earlier comments. Delete "minimum effective." [Attachment D, item X.]

Response 1.69
See Responses 1.15, 1.17, and 1.24.

Comment 1.70 [SF70]
Need a category for those that currently have a permit, but are required to resubmit a revised NOI and APAP. [Attachment E, item I]

Response 1.70
See Response 1.1.

Comment 1.71 [MSB71]
Delete this and replace with "are used to treat" so that there is consistency with the instructions. [Attachment E, item IV.]

Response 1.71
Concur. Staff made the suggested edits.

Comment 1.72 [MSB72]
See global comment on change to algaecide and aquatic herbicide. [Attachment E, item V.]

Response 1.72
Staff did a global search of "aquatic pesticide", and made necessary replacement. However, we kept the title unchanged since Attachment A provides a definition of Aquatic Pesticide: "Aquatic pesticides in this permit are limited to

algaecides and aquatic herbicides labeled for aquatic use to control aquatic weeds or algae."

Comment 1.73 [SF73]
Need more space in this box to list all Aquatic pesticides that may be used by an applicator. [Attachment E, item V.B.]

Response 1.73
Concur. Staff made the suggested edit.

Comment 1.74 [SF74]
With change made in the NOI form, this is OK. [Attachment E, item A.1 on Instruction for NOI]

Response 1.74
Comment noted.

Comment 1.75 [SF75]
This is the same as A1 except that it is controlled by an entity other than the discharger. Need to change text here to be consistent with text in the NOI form. [Attachment E, Section IV. Item A.1 on Instruction for NOI]

Response 1.75
Staff changed the text to be consistent with the text in the NOI.

Comment 1.76 [SF76]
Replace “check” with “list.” [Attachment E, Section V item A.1 on Instruction for NOI]

Response 1.76
Concur. Staff made the suggested edit.

2. Comment Letter 2 – Orange County Water District

Comment 2.1
The general aquatic pesticide permit covers application of aquatic pesticides to waters of the United States and including the other listed water bodies (page A5). We recommend that the RWQCB have the authority to evaluate site-specific applications to determine whether a body of water is considered "waters of the United States" in assessing if an entity must apply for the general aquatic pesticide permit and/or evaluate what bodies of water fall under the definition of "waters of the US" for purposes of compliance monitoring and best serves the objective of the aquatic pesticide general permit and ensures that resources are allocated to comply with the intent of the regulation.

Response 2.1

Section VIII.D. of the General Permit provides that State Water Board staff will coordinate with Regional Water Board staff to review the application package for completeness and applicability to the General Permit. Thus, Regional Water Board staff will have the opportunity to evaluate site-specific applications to determine whether a body of water is a water of the United States or not.

Comment 2.2
The general permit lists 8 chemicals with receiving water limitations and 2 chemicals with receiving water monitoring triggers. Are these 10 aquatic pesticides the only chemicals permitted for use under this general permit? May other aquatic pesticides be used and if yes, what is the approval process?

Response 2.2
The General Permit includes 12 active ingredients of algaecides and aquatic herbicides as specified in Section II.A: 2,4-D, acrolein, copper, diquat, endothall, fluridone, glyphosate, imazamox, imazapyr, penoxsulam, sodium carbonate peroxyhydrate, and triclopyr Triethylamine . These are all the active ingredients of algaecides and aquatic pesticides that have current registration status in California and are labeled for use in natural water ways. Dischargers can use any aquatic pesticide products with these 12 active ingredients. Following is the process for adding new active ingredients to the permit:

a. Manufacturer registers product in California through the California Department of Pesticide Regulation (DPR);
b. After registration in California, manufacturer requests staff to add product to the permit;
c. Staff requests product information from DPR and reviews information for potential impacts to water quality;
d. Staff amends the permit to add product and necessary requirements (receiving water limits/triggers, best management practices, monitoring, etc.) to the permit to protect water quality;
e. Staff processes the amended permit for State Water Board adoption; and
f. State Water Board adopts amended permit, which becomes effective immediately if no significant comments are received on the draft permit and USEPA has no comments. Else, the permit becomes effective after 100 days.

Nonylphenol is not an active ingredient in aquatic pesticides; but it is a surfactant commonly used for aquatic pesticides.

Comment 2.3
Confined recharge basins: As shown on the attachment, OCWD maintains many isolated recharge basins to spread and percolate water for groundwater recharge. Many of the basins (located north or east of the Santa Ana River) are isolated and do not have a "downstream" water body that may be affected by application of the aquatic pesticide. The off-river basins along the Santa Ana River are connected and not part of the main stream of the river. These off-river basins may terminate into a larger basin or be diverted to other recharge facilities. Water is percolated for recharge and in general, diverted water for spreading does not reach or mix with other water bodies. Are applications to these recharge basins require public notice as specified by the permit?

Response 2.3
The General Permit only covers applications to waters of the United States. Confined recharge basins are not waters of the United States. Thus, the General Permit does not cover pesticide applications to confined recharge basins.

Comment 2.4
Affected governmental agencies: The permit does not define who are affected governmental agencies for purposes of the pre-application notification.

a. Confined recharge basins: Since aquatic pesticide treated water will remain in the confined basin and not released to downstream or adjacent entities, who would be the governmental agencies for notice? OCWD recommends that notice to governmental agencies not be required for enclosed (confined) recharged facilities.
b. For applications that may occur at the Wetlands, are the governmental agencies those located along the Santa Ana River downstream of the wetlands? Are governmental agencies the cities and county? Ohters?

Response 2.4
Affected governmental agencies means those agencies that use or manage the water that receives pesticides, e.g. cities, counties, water districts, irrigation districts, State agencies such as the Department of Boating and Waterways, Department of Fish and Game, etc.

As stated in Response 2.3, confined recharge basins are not waters of the United States. Thus, pesticide applications in those basins cannot be covered under this General Permit.

When applying to wetlands that are waters of the United States dischargers will need to notify those governmental agencies that will be potentially affected by their aquatic pesticide applications so that those agencies could take appropriate actions to avoid any temporary effects from the pesticide applications.

Comment 2.5
Calendar year notice: The permit requires annual year notice, prior to the first application of aquatic pesticides to the potentially affected agencies. Since OCWD does not routinely apply algaecides or aquatic herbicides, we will not have defined dates or locations. Applications would be applied only as needed if other BMPs have not been successful. Since specific dates and locations (e.g., specific recharge facility or the wetlands) are unknown at the start of the year, how will notification be made to be accurate and in compliance with permit notification requirements? Similarly, the specific type of aquatic pesticide will not be known until the need arises for application of the algaecide. OCWD suggests that for entities covered by the general permit that do not have a routine schedule for aquatic pesticide application to include language that allows for 15-30 days pre-notice of planned application. Applications to confined (enclosed) recharge basins should not require calendar notice.

Response 2.5
Staff revised the draft permit to require notification of potentially affected agencies 15 days prior to the first application of aquatic pesticides.

Comment 2.6
Submit APAP at least 90-days before expected permit coverage: OCWD recommends that the draft permit, like previous permits, provide for continuous coverage under the old permit until the discharger is covered by the new permit. Continuous coverage is needed because the new permit has timelines that will leave the permittee without any coverage during the interim of receiving coverage. For example: (1) submit APAP 90-days before expected permit coverage, (2) 30-day public review of the APAP, and (3) time required for the SRWCB to complete their review process and issue the Notice of Applicability (NOA). OCWD recommends that the new permit allow for continued coverage during the transition period for the discharger to obtain coverage under the new permit.

Response 2.6
See Response 1.1 above.

Comment 2.7
Monitoring locations and treatment area: For entities such as OCWD, identifying the specific monitoring location and treatment area with GPS coordinates (page C-4) will be very challenging as advance knowledge of "where" treatment to GPS coordinates will not be possible. Since OCWD will rarely have the need to apply aquatic pesticides, we must be covered by the general permit and have the ability to respond to unplanned environmental changes (excessive rapid growth or aquatic blooms) to a recharge basin or the wetlands area. In OCWD's APAP, GPS coordinates will be provided of each recharge basin and of the entire wetlands; however, identifying by GPS coordinates "where" application will take place is not realistic. OCWD may specify general locations within a recharge basin where specific water quality samples may be taken. The locations may be refined at the time of actual sampling.

Response 2.7
Staff revised the General Permit sentence on Page C-4 as shown in red: “Monitoring location information shall include a description of the treatment area, GPS coordinates if feasible, and algaecides and aquatic herbicides being applied.”

Comment 2.8
Background monitoring: The monitoring and reporting program requires background monitoring to be collected upstream at the time of application or up to 24-hours in advance of the application event (page C-4) and Table C-1 (page C-6). OCWO recommends that the time to collect background samples be increased up to 7-days prior to application. Many entities, like OCWO, have a separate Water Quality department or external contractor, who will be collecting water samples. If aquatic pesticide application is scheduled for a Monday, then Water Quality staff must either collect samples over a weekend or be scheduled

to arrive early on the day of application. Often, aquatic application may be planned for a specific day but conditions may warrant revising a schedule to another day of the week or addressing equipment failures. Twenty-four hours in advance of application seems very stringent given that post monitoring activities will occur on the day and following application.

Response 2.8
The purpose of background sample is to obtain background information on the receiving water quality just prior to the pesticide application. If the background sample is taken seven days before the pesticide application, it is highly likely that the receiving water quality at the time of application will be different from that of seven days prior, thus, rendering the background sample useless. The background sample can be taken immediately prior to the application.

Comment 2.9
Water Quality Samples: Table C-1 (page C-6) specifies that grab samples for physical and chemical parameters be collected at the surface (footnote 4). It is recommended that measurements of field parameters and collection of water samples be below the surface of the water (e.g., 1-foot) and not at the surface of the water.

Response 2.9
Staff revised Note 4 as shown in red: *"Samples shall be collected* at three feet below the surface, or mid-depth if water body is less than six feet deep."

Comment 2.10
Legal Authorities - WDRs: The draft permit states that "this General Permit also serves as WORs" (page D-10). Please clarify if this permit covers aquatic pesticide application to land adjacent to water bodies to control weeds where pesticide residual may enter the adjacent water body due to rising water levels.

Response 2.10
The California Water Code uses the term "waste discharge requirements" which is the equivalent of the term "permits" as used in the Federal Water Pollution Control Act. (Wat. Code § 13374) Thus, WDRs and NPDES permits have the same meaning when discussing regulation of pollutants from point sources to waters of the United States.

As stated in Table 1, the General Permit covers only the discharge of residual algaecides and aquatic herbicide to waters of the United States. As such, it only covers applications of pesticides that are registered for aquatic applications. If you plan to apply or are applying pesticides labeled for terrestrial use only, you need to contact the Regional Water Board to determine whether you need WDRs.

3. Comment Letter 3 – The Essential Public Information Center, Upper Lake, California

Comment 3.1

Page 3, 5th paragraph: "This General Permit does not cover agricultural storm water discharges or return flows from irrigated agriculture because these discharges are not defined as 'point sources' and do not require coverage under an NPDES permit. This General Permit also does not cover other indirect or non-point source discharges from applications of algaecides and aquatic herbicides, including discharges of pesticides to land that may be conveyed in storm water or irrigation runoff."

COMMENTS/QUESTIONS: *The revised "Phase II Small Municipal Separate Storm Sewer System" permit (currently under review prior to approval by the SWRCB, scheduled for later this year) does call for monitoring of water quality impacts from non-point storm water runoff, as well as dry weather monitoring of point sources ("outfalls") for Illegal Discharge Detection and Elimination. However, the constituents required to be monitored do not include pesticide discharges. Also, the Sacramento River Basin Plan Amendment for Control of Nutrients in Clear Lake, requiring pollutant reduction (a.k.a. "nutrients") incorporates a Total Maximum Daily Load, the specification of which is questionable. For comments/questions on that issue, refer to Holly Grover at your offices.*

Long-term, cumulative impacts to water supplies in Clear Lake from a multitude of watershed activities, including adjacent agricultural operations, are not studied in an integrated manner, since each subsection of the federal Clean Water Act seems to have its own separate program. In the case of this ecosystem and ecoregion, the lack of integration can be seen in current conditions where the lake's health is so obviously suffering. Clearly (no pun intended) water quality in Clear Lake is worsening, as increasing costs of drinking water treatment evidence. Please use the authority granted to you by law to address the ecosystem impacts of "nuisance weed" eradication in Clear Lake.

Response 3.1

We concur that a watershed approach is the best way to solve our water quality problems. Towards that end, we work closely with other programs at the Water Boards and have forwarded your comments to our Irrigated Lands, Storm Water, and TMDL Program staff. We will continue coordinating with these programs as we try to find efficient and effective ways of addressing these issues without duplicating each other's efforts.

Comment 3.2

Page 4, 2nd paragraph: "To obtain authorization under this General Permit, Dischargers must submit to the State Water Resources Control Board (State Water Board) a complete application that consists of the following:" and item 3 "An Aquatic Pesticide Application Plan (APAP)."

COMMENTS/QUESTIONS: The County of Lake, Department of Public Works, which administers this NPDES permit for aquatic pesticide applications in Clear Lake, provided a document titled "Clear Lake Integrated Aquatic Pesticide Management Plan," in 2004. Does that document fulfill the requirements of the APAP (is it accepted/approved as such)? Since that document was also accompanied by a "Programmatic Environmental Impact Report (EIR)" (and appendices) but the documents have not been reviewed by the Central Valley Regional Water Quality Control Board staff responsible for the implementation of this federal CWA mandate, will staff undertake that review, and provide input opportunities to determine changes that might be required to ensure permit compliance?

a. *Will the existing APAP be revised (or require revision) for this application?*
b. *Will the existing Programmatic Environmental Impact Report for the existing APAP require revision? Who makes that decision?*

Response 3.2
The APAP in this General Permit requires more information than Order 2004-0009-DWQ did. Thus, Lake County must submit a new APAP to comply with the new General Permit application package.

An environmental document is not required to get coverage under the General Permit. It is only required when a discharger applies for an exception to meeting priority pollutant limits for copper and acrolein as allowed by the State Water Board's SIP section 5.3 Thus, if Lake County does not apply for the SIP 5.3 exception, it does not need to submit an environmental document (negative declaration, MND, or EIR).

The Regional Water Board staff processed applications under the 2004 Order. Under this General Permit, State Water Board staff will process applications. As stated in Section II.C of the General Permit, after receipt of an application package, State Water Board staff will post the APAP on the Web for 30 days and coordinate with Regional Water Board staff in reviewing the application package for completeness and applicability to this General Permit.

Comment 3.3
Page 4, 3rd paragraph: "The NOA will specify the permitted algaecide and aquatic herbicide active ingredients that may be used, and any region-specific conditions and requirements not stated in this General Permit. Any such region-specific conditions and requirements shall be enforceable."

COMMENTS/QUESTIONS: *Who will determine "region-specific conditions and requirements not stated in this General Permit"? What are the criteria for such determinations? Note that Clear Lake waters are used for irrigation of food crops and habitat management in Yolo County.*

Response 3.3

Regional Water Board staff will determine region-specific conditions that may be included in the NOA. Determinations will be based on protection of the receiving water's beneficial uses.

Comment 3.4
Page 8, 1st paragraph (A. Application Schedule): "The Discharger shall provide phone number or other specific contact information to all persons who request the Discharger's schedule. The Discharger shall provide the requester with the most current application schedule and inform the requester if the schedule is subject to change. Information may be made available by electronic means, including posting prominently on a well-known web page."

Page 8, 2nd paragraph (B. Public Notice Requirements): "Every calendar year, prior to the first application of algaecide or aquatic herbicide, the Discharger shall notify potentially affected governmental agencies. The notification shall include the following information:

"1. A statement of the discharger's intent to apply algaecide or aquatic herbicide(s);
"2. Name of algaecide or aquatic herbicides;
"3. Purpose of use;
"4. General time period and locations of expected use;
"5. Any water use restrictions or precautions during treatment; and
"6. A phone number that interested persons may call to obtain additional information from the discharger."

COMMENTS/QUESTIONS: *Since this calls for notification of "potentially affected governmental agencies," the actual public is not necessarily notified. Since there are private properties on the Clear Lake shoreline that have private water systems that may be affected by herbicide applications, the availability of discharge schedules and plans must be provided to the property owners for protection of their health and safety. The availability of contact and schedule info from the primary permit issuer's web site (Lake County Department of Water Resources), along with monitoring reports, should be a requirement for permit compliance.*

Response 3.4
It would be difficult for dischargers to identify everybody that could be affected by their application. Instead of requiring dischargers to do this, the draft permit in Section VIII.B, Public Notice Requirements, requires dischargers to post their notification on their website, if available. In addition, Section VIII.B requires among other things, that dischargers provide a phone number that interested persons may call to obtain additional information from the dischargers.

Comment 3.5
Page 8, 3rd paragraph (C. Aquatic Pesticides Application Plan (APAP)): "Dischargers shall submit an APAP at least 90 days before the expected day of permit coverage.

This is to allow posting of the APAP for a 30-day comment period, staff to review APAP and respond to comments, and the Deputy Director to issue the NOA."

COMMENTS: *See comments at item 2, above. And note: the contents of the APAP do include a requirement for cumulative, long-term monitoring of combined effects of quantic herbicides with other chemical constituents of the "receiving water body" on the biological life forms -- including bioaccumulation effects. This requirement should be specified in the permit and be implemented in the same way that the NPDES for stormwater management have been in the first cycle of the permit (iterative, self-determined, monitored by CVRWQCB, revised). To the best of my knowledge, there is no program addressing that requirement by the permit holder (County of Lake).*

Response 3.5
During the permit renewal process, staff has reviewed monitoring results from 2004 to 2008, and did not find any long term trend in the increase of residual aquatic pesticide concentrations in the receiving water.

Moreover, according to USEPA pesticide registration documents, the pesticide ingredients labeled for direct in-water use have a short half-life and are not expected to cause long term impacts. Thus, the General Permit does not require a long-term study. When bioassessment becomes a standard requirement in NPDES permits, State Water Board staff will propose its addition to the General Permit.

Comment 3.6
Page 10, 1st paragraph (D. APAP Processing, Approval, and Modifications): "Upon receipt of an APAP, staff will post it on the State Water Board's website for a 30-day public comment period. . . . If comments are received, staff will work with the Discharger to address the comments to allow the Deputy Director to issue an NOA as expeditiously as possible. Permit coverage will begin when the Discharger receives the NOA."

COMMENTS/QUESTIONS:
a. *See comments at item 6 [3.5], above.*
b. *The existing plan requires substantial editing and review; inasmuch as Lake County Department of Water Resources is continuing to issue project permits under the previously approved permit, and has continued to do so past the official "expiration" of that permit, addressing the APAP and additional monitoring considerations should be allowed to afford the public an opportunity to participate in development of a locally effective and accepted approach to managing aquatic pesticide applications in Clear Lake.*
c. *The public would appreciate an opportunity to work on resolving the monitoring and other issues addressed in the APAP to provide permit enforcement options beyond the current level of enforcement (review of annual report by regional water quality control board).*

Response 3.6
See Response 3.2.

Comment 3.7
Page 10, 2nd paragraph: "Major changes to the APAP shall be submitted to the Deputy Director for approval. Examples of major changes include using a different product other than what is specified in the APAP, changing an application method that may result in different amounts of pesticides being applied, or addition or deleting BMPs."

COMMENTS/QUESTIONS: *See comments at item 6 [3.5], above. What is the form or method of submitted requests to the Deputy Director for approval? What is the form or method for updating the APAP as a consequence of designing a "pilot" or "trial" project to use materials or methods not approved in the APAP?*

Response 3.7
Dischargers can use the Notice of Intent (NOI) form to revise their APAP. Dischargers must check Box B "Change of Information" in Section I of the NOI form, fill in rest of the information, attach a supplement to the APAP that provides the actual changes to the APAP, and submit the NOI form and supplement to DWQ's Deputy Director

This General Permit covers only aquatic pesticide products that are currently registered in California for aquatic applications. The active ingredients of these products are specified in this General Permit. If a discharger needs to use a product not already listed in its approved APAP, the addition of pesticide product will need the Deputy Director's approval.

Comment 3.8
Page 11, 1st paragraph (E. Algaecide and Aquatic Herbicide Application Log): "The Discharger shall maintain a log for each algaecide and aquatic herbicide application."

COMMENTS: *What are the record retention requirements for log data? The current Clear Lake APAP (equivalent?) states that there will be a GIS database maintained, but there is apparently no oversight to ensure that the data is retained or used for any purpose. Database requirements should include integration with a system that would allow comparison and analysis of long-term trends and impacts.*

Response 3.8
Section IV.A of the Standard Provisions in Attachment B states, "The Discharger shall retain records of all monitoring information, including all calibration and maintenance records, 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 Director at any time. (40 C.F.R. §122.41(j)(2).)"

Comment 3.9
Page 12, item 10(f): "Each Discharger shall file with the State Water Board and the appropriate Regional 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."

QUESTIONS: *What are the criteria for selecting the monitoring events? Where are records maintained? What independent observations are provided and used, and by whom?*

Response 3.9
The Monitoring and Reporting Program (MRP) in Attachment C prescribes all the monitoring requirements in the General Permit, Section II contains the criteria for selecting monitoring locations.

The General Permit requires dischargers to submit monitoring results in an annual Report to Deputy Director and the appropriate Regional Water Board Executive Officer. At the present, Water Board staff will maintain paper copies of annual report. Eventually, dischargers will need to submit self-monitoring results electronically into the California Integrated Water Quality System (CIWQS) (see item IV.B.2 of Attachment C) and the results will be maintained electronically there hence.

Regarding independent observations, our goal is to inspect 10 percent of the total number of dischargers every year.

Comment 3.10
Page 14, item 4(a): "Each Discharger must conduct additional investigations when the chemical monitoring shows exceedance of any receiving water limitation or monitoring trigger. The additional investigations shall identify corrective actions to eliminate exceedance of receiving water limitations or monitoring triggers caused by the algaecide or aquatic herbicide application. The investigation shall include, but not be limited to, revising and improving the existing BMPs, revising the mode of application, using less toxic algaecide and aquatic herbicide products, or selecting alternative methods for algae and aquatic weed control."

QUESTIONS: *Are there records of any additional investigations performed in Lake County since the initial permit was issued in 2003? Results of these investigations? Changes in BMPs, selection of alternatives, et cetera?*

Response 3.10
The 2004 Order did not require additional investigations. Thus, Lake County did not have such an additional investigation. It is a new requirement only in the General Permit.

Comment 3.11
Page 14, item 4(b): "Upon completion of an algaecide and aquatic herbicide project, public entities and mutual water companies listed in Attachment G of this General Permit shall provide certification by a qualified biologist that beneficial uses of receiving waters have been restored."

QUESTIONS: *What are the credentials required for a "qualified biologist"? In Lake County, who carries that title or authorization? What is the method of reporting restoration of beneficial uses of the receiving waters, who is notified?*

Who oversees the implementation of the monitoring and implements the "revision of control measures" referred to in the following section item 5 [Corrective Action]? Would these changes or corrections impact the approved APAP (or equivalent, "Clear Lake Integrated Aquatic Plant Management Plan," if in fact the document is the APAP equivalent)? How do such changes become integrated into existing approved plans?

Response 3.11
We have added a definition in Attachment A of the General Permit to define "Qualified Biologist":

"Qualified Biologist
A qualified biologist is a biologist who has the knowledge and experience in the ecosystem where the algaecide or aquatic herbicide is applied so that he or she can adequately evaluate whether the beneficial uses of the receiving waters have been restored upon completion of the algaecide and aquatic herbicide application project."

The General Permit requires the certification only for the dischargers listed in Attachment G. These dischargers have obtained the exception for meeting the priority pollutant limitations for copper and acrolein. Currently, Lake County does not have such an exception, thus, it must comply with all limitations in the General Permit.

Regarding overseeing implementation of control measures, item IV.D of the MRP in Attachment C requires 24-hour and 5-day reporting of any non-compliance to the State Water Board and appropriate Regional Water Board. So, both State and Regional Water Boards will oversee the implementation of monitoring and revision of control measures.

If dischargers revised their BMPs as part of the corrective measure, they will need to revise their APAP. As specified in Section VIII.D of the General Permit, major changes to the APAP include changing BMPs. Such major changes need to be submitted to the Deputy Director for approval.

Comment 3.12
Page B-3, Section III. Standard Provisions - Monitoring. (Also see item 8, above.)

"Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity (40 CFR §122.41(j)(1))."

QUESTIONS: *What are the criteria (and how are they selected) for choosing which events to monitor and how are they defined as "representative" in specific permit implementation oversight mandates of the "Clear Lake Integrated Aquatic Plant Management Plan"?*

Response 3.12
Table C-1 specifies the sample types (visual, physical, chemical monitoring), sample type requirements (background, event, and post-event), and frequency of sampling. Samples taken from a representative monitoring location as defined in Attachment A of the draft permit and in compliance with Table C-1 would ensure collection of representative samples.

Comment 3.13
Page D-4, paragraphs 4 & 5 "In August 2001, Waterkeepers Northern California (Waterkeepers) filed a lawsuit against the State Water Board challenging several aspects of Order No. 2001-12-DWQ. Major aspects of the challenge included the emergency adoption of the Order without compliance with CEQA and other exception requirements of the Policy; failure to address cumulative impacts; and failure to comply with the California Toxics Rule (CTR). [40 CFR §131.38]

"In a settlement of the Waterkeepers' lawsuit, the State Water Board agreed to fund a comprehensive aquatic pesticide monitoring program that would assess receiving water toxicity caused by aquatic pesticides and alternatives for pesticide use. The State Water Board contracted with the San Francisco Estuary Institute (SFEI) to conduct the program. SFEI published the final report on February 5, 2004."

[*Excerpted from: "**San Francisco Estuary Institute Aquatic Pesticide Monitoring Program Phase 2 (2003) Final Conclusions for Weed Control Aquatic Pesticides:***

"Use of the limited data gathered during the two pesticide application seasons that the APMP has existed should be limited to screening purposes only to identify where further risk characterization or research may be needed. APMP is not yet of sufficient spatial or temporal extent to directly inform regulatory change. Due to the limited time and budget of the project, no definitive conclusions can be drawn from the data accumulated to date. APMP generated chemical characterization, toxicity, and bioassessment data. The chemical characterization and toxicity data can be used for screening purposes. In complex field situations, bioassessments require multiple years of data before even preliminary conclusions can be drawn from them."] [Emphasis added.]

COMMENTS/QUESTIONS: *What provisions are made for bioassessment studies, identification of sensitive "zones" for restricted applications and*

additional ecological monitoring of non-target species (such as Tules) in shoreline applications? See the "Clear Lake Integrated Aquatic Plant Management Plan" (2004) recommended – but not necessarily implemented -- strategy and note that no reporting has been provided to identify concerns of local management involving public participation.

Response 3.13
The General Permit does not have a bioassessment study requirement. This is because, as part of the pesticide registration process, USEPA and the California Department of Pesticide Regulation (DPR) have evaluated data submitted by registrants to ensure that a product used according to label instructions will cause no harm or adverse impact on non-target organisms that cannot be reduced or mitigated with protective measures or use restrictions.

Moreover, the General Permit requires the dischargers to implement BMPs to eliminate any impact to non-target organisms and plants (item VIII.C.12.a) or cause adverse effects to non-target organisms and plants. As stated in Response 3.5, when bioassessment becomes a standard requirement in NPDES permits, State Water Board staff will propose its addition to the General Permit.

Comment 3.14
Page D-5, 4th paragraph, item a: "The application of pesticides directly to waters of the United States in order to control pests. Examples of such applications include applications to control mosquito larvae, aquatic weeds, or other pests that are present in waters of the United States; and"

COMMENTS/QUESTIONS: (1) Some "pests" can be understood as disease-bearing "vectors" -- such as mosquitos; a few aquatic weeds can be understood as threatening to the entire water supply, such as Hydrilla. However, I would like to know what procedure is used to define the "threat" of non-hazardous plants such as pondweed, making that "threat" so significant that it warrants poisoning the surrounding waters and adding to the cumulative chemical mixture of the ecology. (2) What agency is given the authority for that definition?

Response 3.14
The permit is a general permit that covers a certain group of dischargers. Specifically, the General Permit covers the point source discharge of algaecide and aquatic herbicide residues resulting from algae and aquatic weed control applications. Most of the enrollees in the General Permit are resource agencies with the remainder being home owners associations or similar entities. The General Permit does not contain specific criteria for determining the "threat" of non-hazardous plants or aquatic weeds to water use as such determinations would be specific to location, water usage, and plants... It would be infeasible to include every site-specific determination in the General Permit. Thus, the General Permit defers this determination to the resource agencies and other enrollees that would be conducting the control program. However, the General Permit does require dischargers to examine all other possible alternatives before choosing pesticides as the control measure (see Section VIII.C.12).

Comment 3.15
Page D-6, 5th paragraph: "As part of the registration process of pesticides for use in California, USEPA and the California Department of Pesticide Regulation (DPR) evaluate data submitted by registrants to ensure that a product used according to label instructions will cause no harm or adverse impact on nontarget organisms that cannot be reduced or mitigated with protective measures or use restrictions. Registrants are required to submit data on the effects of pesticides on target pests (efficacy) as well as non-target effects. Data on nontarget effects include plant effects (phytotoxicity), fish and wildlife hazards (ecotoxicity), impacts on endangered species, effects on the environment, environmental fate, degradation byproducts, leachability, and persistence. Requirements that are specific to use in California are included in many pesticide labels that are approved by USEPA."

COMMENTS/QUESTIONS: *The Clear Lake Advisory Committee was asked in May, 2012, to "consent" (in correspondence with the applicant, the term "approval" was requested) to allowing use of a FIFRA-approved but not DPR-approved formula of an aquatic pesticide that is already permitted in this jurisdiction in its liquid form. The FIFRA label indicated that the pesticide is "toxic to fish." No provision for monitoring ecotoxicity before, during, and after the "experimental" application was provided by the applicant. The Clear Lake Advisory Committee was unable to support the applicant, although in theory the proposed formulation would be more effective at eradicating the target species than the existing approved formulation, and would reduce impacts to drinking and recreation water outside the designated treatment area(s). What mechanisms are in place for incorporating local public participation in endorsing/approving/accepting new formulations in "experimental" or "pilot" programs, as overseen by the Central Valley Regional Water Quality Control Board's pesticide program? What bioassessment requirements are mandated for such usage? What monitoring and reporting plans are defined for this process?*

Response 3.15
As stated in Response 3.7, the General Permit covers only aquatic pesticide products that are currently registered in California for aquatic applications. As such, the General Permit does not cover "experimental" or "pilot" programs needed to determine the efficacy and toxicity of new pesticides. In fact, the NPDES regulations do not have provisions for "experimental" or "pilot" programs. However, such programs may still proceed if an NPDES permit is issued by the Water Boards before the "experimental" or "pilot" programs are conducted. The draft permit would specify the requirements including bioassessment, if necessary, to protect water quality. The public may participate during the comment period on the draft permit for the "experimental" or "pilot" programs.

Comment 3.16
Page D-29, 4th paragraph: "The State Water Board, pursuant to the Porter-Cologne Act and the federal Clean Water Act, customarily requires the Discharger to conduct toxicity monitoring. In fact, both Acts anticipate Discharger

self-monitoring." *[See first comment, below.]* "However, this General Permit does not require toxicity testing based on the 2004 toxicity study funded by the State Water Board and data collected from 2004 to 2008." *[See second comment, below.]*

COMMENTS: *First, there is no independent monitoring of the self-monitoring, which is allegedly performed by County personnel, with no identified criteria for monitoring event selection or protocol documentation. Second, see comments at item 12(a), 12(b), and 12(c), above.*

Response 3.16
The NPDES program relies on self-monitoring by dischargers. It would be economically infeasible for the Water Boards to conduct the amount of monitoring required of dischargers. However, Water Board staff conduct regular inspections of dischargers to ensure compliance with their permits. Part of the inspection includes review of self-monitoring reports that dischargers have submitted. The inspections may also include sample collection which depends on the compliance history of the discharger. For the General Permit, our goal is to inspect 10 percent of the total number of dischargers every year as stated in Response 3.10. See also Response 3.12 regarding criteria for monitoring event selection and Section IV, Reporting Requirements, of the MRP for protocol documentation.

For Items 12(a), 12(b), and 12(c) see Responses 3.13, 3.14, and 3.15, respectively.

Comment 3.17
Page D-34, 1st paragraph: "The State Water Board encourages public participation in the WDR adoption process."

COMMENT: *As a dedicated member of the public, resident/voter/tax payer in Lake County, California, USA, I can attest to how difficult it is to participate in the process of developing the regulations and implementation processes for environmental protection of natural resources in the State of California and the County of Lake.*

The State's "official" proclamation of intent -- to "encourage" public participation – is undermined by the actuality of limited education and outreach to develop the capacity for that important component of program achievement. I encourage the State's water quality management teams and staff to take a serious look at the overall ecological asset that is sorely neglected in the Upper Cache Creek Watershed and Clear Lake Basin.

Seventy years of data gathering and scientific analysis of discrete components of the lake, such as mercury, and boron, and phosphorus -- never integrated, but infinitely studied -- have not resulted in changing the culture that owns and operates the watershed lands.

Increasing degradation of our natural resources demands more holistic and collaborative efforts. I sincerely hope you and the entire staff in our regional water quality control board will take these comments into consideration.

Response 3.17
Comment noted.

4. Comment Letter 4 – Riverside County Flood Control and Water Conservation District

Comment 4.1: Order, Table 2, Page 1
To ensure that the District and other dischargers have time to prepare the required documents to obtain coverage under the proposed Draft Permit, the District recommends that the Effective Date be set to 12 months after the Adoption Date.

Response 4.1
See Responses 1.1 and 1.2 above.

Comment 4.2: Order, Section C.3, Page 4
The Draft Permit states that "After the application is deemed complete, the State Water Board's Deputy Director of the Division of Water Quality (Deputy Director) will issue a Notice of Applicability (NOA)." However, Section II.C states that there is a 30-day posting period for the APAP.

The District recommends also including the 30-day review period in the description of the application process on Page 4 of the Order.

Response 4.2
Section VIII.D of the General Permit describes the 30-day posting requirement. Thus, it is not necessary to repeat it in Section II.C.

Comment 4.3: Attachment C, Pages C-2 and C-3, Attachment D, Page D-3
The Draft Permit specifies that dischargers shall conduct samples in "each environmental setting (flowing water and non-flowing water)." Due to the semi-arid to arid climatic conditions within Riverside County, application events may occur when there is no water present. If there is no water present, please specify if monitoring is required.

Response 4.3
If there is no water in the receiving water within the sampling time frame specified in the General Permit, sampling would not be feasible because of the absence of water. However, if water becomes present due to rain events, excessive irrigation, dam releases, such that pesticides applied when there was no water in drainages could leach into these drainages, then the discharger is required to collect samples to determine compliance the permit.

Comment 4.4: Attachment C, Table C-I, Page C-6

Item 4 in Table C-I specifies "Samples shall be collected at the surface of the waterbody." If there is no water present during the application event, please specify if monitoring is required

Response 4.4
See Response 4.3 above.

Comment 4.5: Attachment C, Item IV.B.I.b
The Draft Permit states that the Annual Report shall contain "A summary of monitoring data, including the identification of water quality improvements or degradation, and recommendations for the improvements to the APAP (including proposed BMPs) and monitoring program based on the monitoring results."

Please include language specifying that recommendations for improvement will be based on water quality degradation as a result of the application and if appropriate. The District also suggests including, if applicable, a discussion similar to text in Page C11, Attachment D.2.h:

"If applicable, explain why the Coalition or Discharger believes the noncompliance could not have been caused by exposure to the algaecides and/or aquatic herbicides from the Coalition's or Discharger's application".

Response 4.5
Staff revised the General Permit language as indicated in red: "*A summary of monitoring data, including the identification of water quality improvements or degradation* as a result of the algaecide or aquatic pesticide application if appropriate, *and recommendations …*"

Comment 4.6: Attachment C, Item IV.D.2.h
In Item H, Section D.2, Line 3, "and or" should be written as "and/or."

Response 4.6

Staff has deleted the word "and" in the referenced sentence.

5. **Comment Letter 5 – Big Valley Rancheria Band of Pomo Indians**

Comment 5.1
Thank you for providing the opportunity to comment on the General Permit No. CAG90005. The Tribe is in agreement with strengthening any requirements for pesticide applications to our local waters. Water quality and the sustaining of the native plants and fishes of our waters is a priority for the Big Valley Band of Pomo Indians. Long term pesticide use creates unintended consequences and we want to see the strongest controls over what is allowed to be used and when it is allowed to be used.

Response 5.1
Comment noted.

6. **Comment Letter 6 – General Public, Scott Cressey**

Comment 6.1

Could you provide more detail as to the required number of pesticide residue samples to be taken in a flowing water habitat during the post-application monitoring (number of samples to be taken downstream of the pesticide application, and distance between samples).

Response 6.1
For post-event monitoring, the discharger must take at least one post-event sample within the treatment area within one week after the application event. The discharger may take more than one post-event samples as long as it is within one week timeframe. If the discharger takes more than one post-event sample, all analysis results must be included in the annual report.. Preferably, the sample should be collected at the spot where the pesticide was applied. However, any location downstream of the point of application would be appropriate.

Comment 6.2
Page C-6 (Table C-1) and page D-30 of the Fact Sheet state that "six consecutive application" events need be monitored per year (except for glyphosate), and then if the sample analysis results are within the receiving water's limitations for that chemical, sampling shall be reduced to one application event per year for that chemical and setting. Can this requirement drop the word "consecutive" and simply require that six application events be monitored? This would greatly facilitate the monitoring process. Should one monitor the first four application events, then miss the 5th application event for whatever reason, one could not sample the next two application events to achieve the required six consecutive monitored applications, but would have to start over. If a minimum of six application events must be monitored in a season to be representative of the applications, it shouldn't have to be consecutive events to achieve this.

Response 6.2
The intent of the requirement is to have six consecutive results of nondetection. Thus, staff has changed "application events" to "sampling events" in pages C-6 and D-30.

7. Comment Letter 7 – Napa County Flood Control and Water Conservation District

Comment 7.1
The Napa County Flood Control and Water Conservation (District) requests clarification of the language regarding applicability of the Statewide General National Pollutant Discharge Elimination System (NPDES) Permit for Residual Pesticide Discharge to Waters of the United States from Algae and Aquatic Weed Control Applications. Specifically, the District request further clarification of what constitutes a discharge of algaecides and aquatic herbicides and their residues and degradation byproducts to waters of the United States?

Under permit from the State Department of Fish and Game, the District has actively been treating non-aquatic, invasive species such as Arundo donax (Giant Reed) and Lepidium (Perennial Pepperweed) throughout the Napa River

Watershed with an aquatically-approved form of glyphosate and on occasion with an aquatically-approved form of imazapyr. Arundo spreads rapidly through riparian corridors reducing the hydrological capacity of streams and flood control channels. Lepidium also spreads rapidly in riparian and wetland areas precluding establishment of native flora. The majority of the District's projects are above the ordinary high water level (OHWL); however, there are instances when it is necessary to treat patches of invasive plants below the OHWL. Treatment occurs during the dry season, when water is absent, but if treatment is proximal to water, the District has developed best management practices (BMPs) to avoid overspray or drift into nearby water. Please provide improved clarification in the permit whether, and under what conditions, organizations such as ours would be required to apply for coverage under this permit in order to conduct important non-aquatic invasive species management activities between the top of bank and water's edge, or if an exemption could be granted for non-aquatic applications such as ours.

Response 7.1

According to the Sixth Circuit Court order, pesticide applications at, near, or over water must be covered an NPDES permit. It is up to the applicator to determine whether the application will actually result in a discharge of biological or residual pesticide to a water of the United States. Due to the site-specific nature of pesticide applications, it is infeasible for the General Permit to specify which application must be or must not be covered by the permit. . As stated in Response 2.10, the General Permit only regulates the application of pesticides registered for aquatic applications. If you are applying pesticides that are labeled for terrestrial use only, you will need to contact the Regional Water Board to determine whether your application needs to be covered by another permit.