Public Hearing (11/2/10)

Oft Aqua. Animal Inv. Prmit

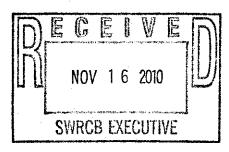
Deadline: 11/16/10 by 12 noon



November 16, 2010

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

Via electronic mail to commentletters@waterboards.ca.gov



Re: Comment Letter - Draft Aquatic Animal Invasive Species Control Permit

Dear Members of the State Board:

Thank you for accepting the following comments we submit on behalf of San Francisco Baykeeper ("Baykeeper") and our 1,500 members. We are writing to express our concerns over the draft Aquatic Animal Invasive Species Control Permit ("Draft Permit"), with the goal of minimizing discharges of pesticides into California's limited and critical water resources. Baykeeper requests that the following changes be made to the Draft Permit to ensure that the Permit incorporates all federal and state requirements and adequately protects water quality in the San Francisco Bay Region.

I. The Draft Permit should cover more pesticides used for the control of aquatic invasive species.

The Draft Permit only covers pesticides containing sodium hypochlorite for the control of invasive mollusks, and only covers two pesticide products. However, section 301(a) of the CWA prohibits the discharge of *any* pollutant to waters of the United States, except in compliance with an NPDES permit. In the Factsheet, the Background section mentions that there are other pesticide products in use to control other aquatic invasive species, and therefore, these other pesticide products should be covered by the Permit as well.

The SWRCB explains that in drafting this permit, (beginning as recently as July 2010), staff:

"[C]onducted a search for pesticide products used for aquatic animal invasive species control. Government agency websites were browsed to find pesticide products that are used in California. Representatives were contacted for more information... Working groups in the [Animal Nuisance Species Task Force (ANSTF)] have written animal invasive species management/ control plans. Management techniques were found in the ANSTF website for control of zebra and quagga mussels, New Zealand mudsnails, Chinese Mitten Crabs but pesticide products were not. Lampricides, like TFM, were suggested as the primary method for control of sea lampreys. The pesticide carbaryl was suggested as a likely effective chemical control of the European Green Crab... The

² At D-31.



¹ At 4.

Aquatic Invasive Species Permit San Francisco Baykeeper Comments Page 2 November 16, 2010

[California Department of Fish and Game (CDFG) Invasive Species Program] were aware of pesticide products still in development for control of zebra/ quagga mussels... State Water Board staff found that only products for zebra mussels and invasive fish species control are listed in the DPR database." At D-5-6.

Therefore, the Draft Permit excludes coverage for several pesticide products used for the control of aquatic invasive species in California, contrary to the purpose of the Permit to regulate all discharges of pesticides used for aquatic invasive species control. The Draft Permit omits coverage for lampricides,³ use of the "moderately to very toxic" pesticide carbaryl⁴ for the control of European Green Crab,⁵ and unspecified pesticides listed in the DPR database for the control of invasive fish species. The Factsheet admits "[t]here may be aquatic invasive species of concern in addition to mollusks and lampreys," and Chinese mitten and European green crabs, and the Draft Permit should cover additional pesticides used to control these other aquatic invasive species.

The SWRCB must continue to add additional pesticide products and receiving water limitations for ingredients as soon as possible to protect navigable waters as required under the CWA. Pursuant to 40 C.F.R. § 122.44(d)(1)(i), NPDES permits must contain limits that control *all* pollutants that are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any state water quality standard. Whenever the Permit is re-opened to include additional pesticide products or other updates, the SWRCB must also provide for full public review and comments. The Draft Permit should be updated regularly as better information on active and inert ingredients is gathered.

II. The Draft Permit should enumerate additional provisions enabling full public review and citizen enforcement.

The Draft Permit should enumerate additional provisions to enable full public comment and agency review.⁸ The public has a right to know about pesticide discharges before and after they occur.

• Before any discharge, an applicant's NOI and APAP should be made available online for public notice and comment for 30 days before the Board decides to issue a Notice of

³ See, e.g., http://pubs.usgs.gov/of/2006/1106/pdf/OFR2006-1106.pdf ("Concern has been expressed in recent years over the risk of lampricide applications to nontarget fauna. Of particular concern are several fish, mussel, amphibian, and other rare aquatic species listed as threatened, endangered, or of special concern by state and Federal agencies.")

⁴ http://pmep.cce.cornell.edu/profiles/extoxnet/carbaryl-dicrotophos/carbaryl-ext.html ("Carbaryl is lethal to many nontarget insects. The pesticide is more active in insects than in mammals. The destruction of honeybee populations in sprayed areas is sometimes a problem. Carbaryl is moderately toxic to aquatic organisms, such as rainbow and lake trout, bluegill, and cutthroat... Accumulation of carbaryl can occur in catfish, crawfish, and snails, as well as in algae and duckweed. Residue levels in fish were 140 fold greater than the concentration of carbaryl in water.") ⁵ "First detected in the San Francisco Bay in the late 1980s, the green crab has spread along 300 miles of coastal California." Factsheet at D-9.

⁶ At D-9.

⁷ See Factsheet at D-28-29, Sub-section (B), "ReOpener Provisions."

⁸ See 33 U.S.C. §§ 1251, 1311 & 1342.

Aquatic Invasive Species Permit San Francisco Baykeeper Comments Page 3 November 16, 2010

Applicability (NOA), allowing sufficient time for public input before approval may be granted. Only the APAP contains the specific technology-based effluent limitations, or BMPs for pesticide applications, and the APAP therefore must be included as part of the permit for public review and comment. 10

- Once issued, the NOA should also be made available online to inform the public about what specific pesticides may be used and any specific limitations.
- All monitoring reports and data generated under the Draft Permit should be made available to the public for review, just as DMRs are required to be. 11
- SMRs should be submitted monthly for periods in which any pesticide discharge occurs, as with most other DMRs and NPDES permits, and not merely on an annual basis as proposed in the Draft Permit.¹²
- The SWRCB should implement random testing for pesticide residue and BMP implementation.
- In order to reflect the statute of limitations codified at 28 U.S.C. § 2462, dischargers should be required to retain records for a period of five years. Any documents that dischargers are required to produce and retain should be available for public review pursuant to 33 U.S.C. § 1318(b).

III. The Draft Permit should contain a more complete antidegradation analysis.

The Draft Permit contains an incomplete antidegradation analysis. 14 The SWRCB argues that:

"The Regional Water Boards' Basin Plans implement, and incorporate by reference, both the state and federal antidegradation policies. The conditions of this General Permit require residual pesticide discharges to meet applicable water quality objectives. Waters of exceptional quality may be degraded due to the application of pesticides; however, it would only be temporary and in the best interest of the people of the State. 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 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." At 11.

The SWRCB Resolution No. 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. However, in the above antidegradation

⁹ At D-14, the Factsheet should add to the Section II Notification requirements that permit coverage will be effective when, under sub-point (A), the APAP has been *approved* by the State Deputy Director *and* after a 30-day notice and comment period.

¹⁰ See Waterkeeper Alliance, Inc. v. EPA, 399 F.3d 486 (2nd Cir. 2005).

¹¹ See 33 U.S.C. § 1318(b); Draft Permit at B-5 ("Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Regional Water Board or State Water Board for reporting results of monitoring of sludge use or disposal practices. 40 C.F.R. § 122.41(l)(4)(i).").

¹² At C-10.

¹³ Draft Permit at B-3, requires document retention for 3 years.

¹⁴ See requirements at CWA § 101(a); 40 C.F.R. § 131.12; SWRCB's Antidegradation Policy (Resolution 68-16); and CWC §§ 13146; 13247.

Aquatic Invasive Species Permit San Francisco Baykeeper Comments Page 4 November 16, 2010

analysis the SWRCB uses unsubstantiated assumptions to justify its conclusion that the Draft Permit complies with antidegradation policies. First, this analysis assumes that the conditions of the Permit fulfill and meet all applicable water quality objectives, when, for instance the Draft Permit does not provide a complete explanation of all applicable water quality standards and objectives and what they specifically require. At times, subsections included in the Findings section seem to summarily conclude that the conditions of an applicable water quality objective are met through the Permit alone, ¹⁵ without stating what the specific applicable water quality objective even is, much less what it specifically requires. Second, the excerpt assumes degradation to exceptional quality waters would only be temporary, when the Draft Permit allows applications "may be performed in a single, semi-continuous, or continuous treatment dosage" at the discretion of the discharger.

Third, the excerpt assumes that waters of exceptional quality degraded by the application of pesticides is "in the best interest of the people of the State," which is not necessarily true. Tourth, the excerpt assumes water quality standards and objectives will not be exceeded when the permit only covers one type of pesticide product and the receiving water may be subject to a barrage of chemicals not included in the "Receiving Water Limitations" table. Table 3 in the Permit lists only chlorine, when there are potentially thousands of active and inert ingredients used in pesticides. Therefore, an applicable water quality standard could be violated yet escape detection merely because a relevant ingredient was not listed. Fifth and finally, just because receiving water limitations are included does not mean all applicable water quality standards and objectives will be met. For example, the Draft Permit only covers one type of pesticide product, where more may be applied to control other types of aquatic invasive pests such as the European Green Crab. The presence of un-monitored ingredients in a given waterbody can act synergistically, or resulting in an exceedance of an applicable water quality standard or objective.

To further elaborate, in regard to the Draft Permit's prohibition of discharge of residual pesticides or their breakdown by-products to waters that are already impaired by the pesticides used for aquatic animal invasive species control and listed under Section 303(d), ²¹ this formulation is inadequate to protect the 303(d) list of impaired water bodies. Pesticide discharges can have additive or synergistic toxicological effects with other pesticides, a factor which FIFRA's risk assessment fails to take into account and will not be met through mere

¹⁵ E.g. The Factsheet lists the *Water Quality Control Policy for the Enclosed Bays and Estuaries of California*, but just summarily concludes that "[t]he requirements within this General Permit are consistent with the Policy." At D-19.

¹⁶ At D-17.

¹⁷ E.g. A given application of pesticides may not be in the best interest of the people of California when, for example, the Draft Permit gives no guidance as to how to calculate actionable threshold populations of pests. This determination is left to the discharger, and not necessarily knowing the threshold populations where a public health risk exists, a discharger could set the threshold too low and apply pesticides where it is not needed or where it is actually contrary to the best interests of the public at large.

¹⁸ At 14.

¹⁹ At 13-14.

²⁰ See, e.g., Factsheet at D-25. ("Residual active ingredients that do not contain pollutants for which there are applicable numeric CTR criteria may still have toxic effects on receiving water bodies. In addition, the inactive or "inert" ingredients of pesticides, which are trade secrets and have not been publicly disclosed, may also contain toxic pollutants or pollutants that could affect water quality.")

²¹ At D-19.

Aquatic Invasive Species Permit San Francisco Baykeeper Comments Page 5 November 16, 2010

adherence to label instructions. For this reason the SWRCB should disallow coverage for discharges into waters that are listed as impaired for any parameters known to exacerbate any deleterious effect on non-target organisms of the specific pesticide being discharged. This should include impairment for any pollutant parameter (such as mercury) that may increase an organism's susceptibility to pesticide toxicants, as well as water quality conditions (such as low dissolved oxygen) that may do so. Therefore, the SWRCB should also exclude from coverage under the Draft Permit all pesticide discharges to waters that: 1) are impaired for pesticides generally, 2) are impaired for substances known to exacerbate the harmful effects of pesticides, and/or 3) impaired by any constituent of the pesticide being discharged.

The SWRCB should undergo a complete antidegradation analysis by conducting a more thorough review of existing areas and existing practices where the potential exists for this Permit to result in a degradation of water quality standards. Ideally, the SWRCB should provide a more complete list of all applicable water quality objectives, what they each require relevant to the proposed activity, how activities performed pursuant to provisions of the Permit do or do not meet the relevant water quality standard, and whether the particular objective or standard requires further activity on behalf of the discharger.

IV. The Draft Permit should provide better guidance and oversight for implementing the "least intrusive method" and other pollution minimization measures.

The unequivocal purpose of the CWA is to eliminate the discharge of pollutants into navigable waters.²² Thus, the ultimate purpose of the SWRCB's draft Aquatic Invasive Species Permit is to eliminate the application of pesticide residues to California's waters to the maximum extent possible. The Draft Permit should explicitly require the use of the least toxic alternative or require that non-toxic methods of pest control be tried first, and set objective standards for BMPs. This is legally necessary under 40 C.F.R. 131.12(a)(2), which prohibits new or increased discharges to the nation's waters that are not necessary to accommodate important social or economic development.

A. The Permit should explicitly require the least toxic alternative.

Under the Draft Permit, the discharger has a duty to mitigate effects to water quality from pesticide applications and must take all reasonable steps to minimize or prevent any discharge.²³ This pollution minimization requirement and guidance for undertaking an alternatives analysis should be more explicit in the Permit. The Draft Permit currently states that:

"Dischargers are required to consider alternative control measures to determine if there are feasible alternatives to the selected pesticide application project that could reduce potential water quality impacts. If the Discharger identifies alternative control measures to the selected pesticide application project that could reduce potential water quality impacts and that are also feasible, practicable, and cost-effective, the discharger shall

²² See, 33 U.S.C. § 1251(a)(1).

²³ Draft Permit at B-1, citing, 40 C.F.R. § 122.41(d).

Aquatic Invasive Species Permit San Francisco Baykeeper Comments Page 6 November 16, 2010

implement the identified alternative measures. The selection of control measures that use non-toxic and less toxic alternatives is an example of an effective BMP." At D-22.

However, the Draft Permit should not merely suggest that selection of less toxic alternatives is an example of an effective BMP. Rather, in order to truly 'minimize' discharges of pesticides the Draft Permit should contain an explicit presumptive preference for non-toxic alternatives to pesticide use in every case. The discharge of pesticides to water should only be allowed in situations where non-toxic alternatives have been tried and found to be unsuccessful. In that case, the Permit should require that preference be given to the safest pesticide evaluated in the lowest effective amount. The Draft Permit should explicitly include these strict minimization requirements in Section VII.C.12, where the Permit lists requirements for examining the Possibility of Alternatives contained in the APAP. These least-toxic requirements could help clarify sub-point (b) suggesting dischargers use "the least intrusive method of pesticide application," and sub-point (d) suggesting dischargers apply "a decision matrix concept to the choice of the most appropriate formulation."24 The Draft Permit should give dischargers more guidance on what "a decision matrix concept" looks like, and define what an "appropriate formulation" of an alternatives analysis is by giving concrete guidance and prioritization criteria dischargers must abide by when deciding their preferred alternative. In the absence of numeric discharge limits, enforcement of these minimization requirements will be absolutely essential for protecting water quality.

B. The Draft Permit should set objective standards for BMPs.

The SWRCB should set objective standards for when pesticide use is allowed for control of aquatic invasive species and should develop guidelines regarding what comprises BMPs in this context. As currently written, the discharger has considerable discretion in deciding the resulting discharge of pesticides into California's waters through private choices and action plans developed in the APAP. The Draft Permit fails to specify or designate which practices are considered BMPs, favoring "flexibility" instead. Thus, neither the Permit nor the Factsheet actually describe the particular management technologies that will control each applicator's discharges. While "flexibility" is desirable in order to tailor BMPs to individual circumstances, it does not preclude the SWRCB from providing more demonstrative examples of applicable BMPs, pinpointing where approved BMPs can be found in the aquatic animal invasive species management context, and giving additional guidance as to what methodologies are least intrusive. The SWRCB could also revise the Draft Permit or promulgate a guidance document

²⁴ At 15-16.

²⁵ At D-22.

²⁶ E.g. The Factsheet describes that the "Metropolitan Water District's Colorado River Aqueduct is one of the first sites that zebra and quagga mussels invaded in California. Sodium hypochlorite is used to kill quagga mussel larvae in the aqueduct. Since copious amounts of chlorine are required to kill adult quagga mussels, they are controlled instead by mechanical methods such as scrapping and water jetting, instead." At D-6. The Draft Permit should further explain these mechanical control methods in the BMP context. Similarly, the Factsheet mentions that in the control of Zebra mussels, "[p]reventing spread, most notably by trailored boat traffic, is the best way to control invasion of this species." At D-8. The Factsheet should explain what "trailored boat traffic" is and how it places in the spectrum of least intrusive control methods, and include explanations of other innovative approaches such as depleting oxygen from Asian clams by "placing rubber sheets over them." At D-9. The Factsheet should elaborate on other mechanical, biological, and/or chemical pesticide options to the greatest extent possible, and categorize

Aquatic Invasive Species Permit San Francisco Baykeeper Comments Page 7 November 16, 2010

to include prescribed categories of BAT/BCT for the control of different species, ²⁷ give lists and explanations of non-toxic alternatives that exist for control of each invasive species, and provide specific ways of reducing environmental impacts when pesticides must be used. As written, the requirements set forth in the Draft Permit are too generic to provide meaningful guidance on what specific practices reflect the application of technology that is the best available.

The Draft Permit needs to enumerate objective criteria for dischargers to evaluate and choose between BMPs, and needs additional guidance as to what some specific criteria require, such as guidelines to help the discharger establish densities for pest populations to serve as action threshold(s) for implementing pest management strategies. Not all pesticide applicators have experience in determining whether and when actionable thresholds of pest populations are met, and allowing the regulated party to define the terms of regulation appears to be illegal under the CWA. Instead, the Draft Permit should set objective, scientifically-derived guidelines for the establishment of 'action thresholds' allowing pesticide use. Furthermore, the SWRCB should specify that in calculating action thresholds, environmental and human health considerations should take precedence over those relating to economic, aesthetic, or other effects.

The Draft Permit should also further discuss various methods of pesticide application and attempt to categorize these generally according to the least harmful method. The development and implementation of site-specific control measures or BMPs in the APAP is the only place where the best available and practicable technologies will be selected and required to reduce or eliminate pesticide discharge, and thus, its requirements must also be enforceable as a limitation in the Permit.²⁹

V. The Draft Permit should require clear and enforceable standards for individual monitoring and toxicity testing.

The Draft Permit should require individual monitoring by dischargers in order to provide meaningful data with which to review each individual discharger's compliance with permit requirements and water quality standards. Federal law requires that all NPDES permits specify "[r]equired monitoring including type, intervals, and frequency sufficient to yield data which are representative of the monitored activity." 40 C.F.R. § 122.48(b). However, the Draft Permit provides that if "the Discharger elects in it APAP to undertake monitoring and reporting through a Coalition, then the Coalition will act on behalf of the Discharger with respect to monitoring

these control methods generally by the least intrusive method. E.g. the Factsheet mentions that "[e]xtensive trapping is the most attractive mechanism to control crabs." At D-9.

²⁷ Note that the Draft Permit merely concludes that the "BMPs required herein constitute Best Available Economically Achievable (BAT) and Best Conventional Pollutant Control Technology(BCT) and are intended to 1) minimize the area and duration of impacts caused by the discharge of pesticides in the target area and 2) allow for restoration of water quality and protection of beneficial uses of the receiving water to pre-application quality following completion of an application event." At 10. However, the Factsheet does not explain how unspecified BMPs meet the governing BAT/BCT standards set forth in 33 U.S.C. §§ 1311, 1314, and 1316. The Draft Permit should show its BAT/BCT analysis, and how it satisfies the relevant technology standard of the Act.

²⁸ Draft Permit at 15.

²⁹ See Waterkeeper Alliance, Inc. v. EPA, 399 F.3d 486 (2nd Cir. 2005).

Aquatic Invasive Species Permit San Francisco Baykeeper Comments Page 8 November 16, 2010

and reporting", 30 and encourages a collective Watershed Management Approach (WMA). 31 The permit should not substitute group monitoring for individual monitoring because it is unclear how or whether individual liability could result from Coalition monitoring that uncovers an exceedance of water quality standards. In order to determine the water quality impacts, data on each individual discharger, specifics on which pesticide products were used, 32 and each individual water body are needed--not just the entire watershed.

Ideally, the Draft Permit should require water quality monitoring before and after each pesticide application, and require submission of monitoring reports on a monthly basis.³³ Dischargers are rightfully required to conduct monitoring before, during and after the pesticide application to ensure that non-target organisms are not adversely affected by the pesticide. However, the Draft Permit undercuts its own monitoring requirements, stating that the State Water Board Deputy Director of the Division of Water Quality may "approve reductions in monitoring frequencies if the Discharger makes a request and the request is backed by statistical trends of monitoring data submitted."34 This provision does not enumerate the criteria with which the Deputy Director will approve or deny a request, while historically, the absence and lack of pesticide monitoring data supports the need for more, not less, monitoring requirements.

Finally, in the MRP attachment C, toxicity testing should be required of all dischargers regardless of whether chlorine is the only active ingredient in the aquatic pesticide used.³⁵ While SWRCB staff "found that sodium hypochlorite is the only active ingredient in all the pesticide products used to control zebra mussels,"36 the California Department of Fish and Game (CDFG) Invasive Species Program was also "aware of pesticide products still in development for control of zebra/ quagga mussels."37 Therefore, it is foreseeable that chlorine will not be the only toxicant that results from pesticide products that are used to control invasive mussels, much less all of the other aquatic animal invasive species not covered by the Draft Permit. Moreover, just because chlorine may be the only active ingredient listed, several inactive or inert ingredients may be present that also contain toxic pollutants or pollutants that could affect water quality.³⁸ Therefore, toxicity testing should be required for all dischargers.

The Draft Permit should require an actual deadline for corrective action. VI.

The "Corrective Action Deadlines" provision should be changed to include an actual deadline for changes to be made to BMPs before the next pesticide application event that results in a discharge. The Permit should omit the language currently allowing a corrective action "as soon

³⁰ See Draft Permit at C-2.

³¹ Draft Permit at C-6.

³² For this reason, it is also insufficient for the APAP to only require the discharger to list the "types" of pesticides to be used. The APAP should require that the specific pesticide products to be used must be listed, along with their active ingredients.

³³ See Draft Permit at C-10. Requires SMRs annually, whereas they should be required monthly or after each

At 18, (enables monitoring samples to be reduced from a minimum of 6 samples on a case-by-case basis.)

³⁵ At C-4.

³⁶ At D-6.

³⁷ At D-6.

³⁸ See, Factsheet at D-25.

Aquatic Invasive Species Permit San Francisco Baykeeper Comments Page 9 November 16, 2010

as possible thereafter" if it is not "practicable" for the discharger to change application measures before the next pesticide application. This language would allow an exceedance of a water quality standard or objective for an indefinite amount of time. Instead, where the discharger ("and Regional or State Board," should be additionally specified in the text of this provision), determines corrective action is necessary, an applicator should not be allowed to discharge pesticides any further until the corrective action is taken. The Corrective Action Deadlines provision needs an actually-enforceable deadline, such as the Discharger is prohibited from any further applications and has 30 days to undertake the corrective action.

Also note that the five-day written report should still be required when reporting non-compliance regardless whether an oral report was received within 24 hours. 40 No criteria for determining a waiver is provided for in the Draft Permit, leaving room for abuse of discretion, and lack of reviewability. In the case of adverse incidents, written documentation is necessary for the public to determine whether the discharger is in compliance.

VII. The Draft Permit should provide greater guidance and protections for endangered species.

The Draft Permit should explicitly prohibit discharges of pesticides in areas that could adversely affect listed species. Even though the Draft Permit provides that the Discharger is responsible for meeting all ESA requirements, ⁴¹ the Draft Permit still provides hyperlinks to NMFS, NOAA, and the U.S. Fish & Wildlife Service for the federal list of endangered species. ⁴² These hyperlinks should be included in the NOI Instructions to give dischargers more guidance where pesticide discharges could adversely affect listed species, and to provide information regarding requirements to obtain an ESA Section 10 "take permit," at 16 U.S.C. § 1539. The SWRCB should identify any pesticides known to be hazardous to a protected species in consultation with the EPA and Fish & Wildlife Service.

Toward that end, and in the case of the San Francisco Bay Region, the Permit should reference provisions of the recent pesticide use Injunction issued by the U.S. District Court, N.D., in May 2010, 43 under which the EPA must develop and distribute a brochure detailing new interim pesticide use restrictions. 44 The CBD lawsuit was based on scientific evidence demonstrating potential harm to specific Bay Area wildlife from the specific pesticides evaluated, and demonstrates how the ESA may impose additional requirements. Meanwhile, the Factsheet mentions that carbaryl was "suggested as a likely effective chemical control of the European Green Crab", 45 when the green crab was first detected in the SF Bay in the late 1980's and it has spread along 300 miles of coastal California. 46 Therefore, it is foreseeable that carbaryl could be

³⁹ Draft Permit at 21.

⁴⁰ See, Draft Permit at 20.

⁴¹ At D-19.

⁴² At 22.

⁴³ U.S. District Court Injunction: *CBD v. EPA* (Case No.: 07-2794-JCS); http://www.epa.gov/oppfead1/endanger/litstatus/stipulated-injuc.html

⁴⁴ http://www.epa.gov/espp/litstatus/use-limiation.html

⁴⁵ At D-6.

⁴⁶ At D-9.

Aquatic Invasive Species Permit San Francisco Baykeeper Comments Page 10 November 16, 2010

applied to waters in the SF Bay to control the European green crab, contrary to the pesticide use restrictions listed in the CBD injunction. Therefore, the Draft Permit or NOI form should include a hyperlink or somewhere reference the pesticide restrictions described in the EPA brochure or web-based interactive map.

CONCLUSION

Thank you for your consideration of these comments. We sincerely hope that with revisions, the draft Aquatic Invasives Species Permit will provide more transparency regarding implementation of BMPs, minimization and avoidance measures and least toxic alternatives, as well as provide more information showing the water quality impacts from individual and collective pesticide use. Please contact me if you have any questions about these comments.

Sincerely,

Naomi Kim Melver

Nam Melver

Associate Attorney, San Francisco Baykeeper