AMCA
THE AMERICAN MOSQUITO CONTROL ASSOCIATION

Individuals enhancing the health and quality of life through the suppression of mosquitoes, other vectors and pests of public health importance.

A Partner in the EPA's Pesticide Environmental Stewardship Program

July 20, 2011

Water Docket
Environmental Protection Agency
Mail Code 2822T
1200 Pennsylvania Ave. NW
Washington, DC 20460

Attn: Docket Number: EPA–HQ–OW–2010–0257

The American Mosquito Control Association (AMCA) membership welcomes the opportunity to provide a mosquito control perspective in reviewing the Reasonable and Prudent Alternatives (RPAs) proposed by NOAA National Marine Fisheries Service as part of the consultation process outlines in the draft Pesticide General Permit issued by EPA.

The AMCA is a not-for-profit professional association of 1700 public health officials, academicians, county trustee/commissioners and mosquito control professionals dedicated to providing leadership, information and education leading to the enhancement of health and quality of life through the suppression of mosquito and other vector transmitted diseases and the reduction of annoyance levels caused by mosquitoes and other vectors and pests of public health importance. This is accomplished through the use of integrated mosquito management procedures, which includes the use of duly registered public health pesticides, when warranted.

General Comment. The "DRAFT Endangered Species Act Section 7 Consultation Biological Opinion on the U.S. Environmental Protection Agency's Proposed Pesticides General Permit" requires the Agency to develop and implement an NMFS-approved monitoring plan. The draft further states that. "The plan shall include sampling and analyses for the presence of pesticide pollutants in representative habitats where and when endangered or threatened species, or designated critical habitat may be exposed to discharges of pesticide pollutants as authorized by the proposed general permit, including non-target waters of the U.S. into which these discharges may flow. The report shall be submitted to NMFS OPR and will summarize annual monitoring data and provide all raw data."

This proposed codification of monitoring requirements is directly at odds with Agency attempts to make permitting as minimally resource-intensive as possible while protecting the integrity of the waters of the State. These new NMFS requirements, unless successfully challenged by EPA, will ultimately result in on-site monitoring costs for mosquito control entities. These costs were never intended by the Agency.

Although the BiOp portion of the PGP will only initially affect those unauthorized states/territories, the other 44 states will be required to institute permitting programs at least as stringent in the longer term. Thus, the enormous new resource requirements engendered by the expansion of NPDES jurisdictional scope in the guidance will now be further compounded by potentially ruinous monitoring burdens to be required within that expanded jurisdiction that can't be met by any foreseeable federal, state or local resources.

The enormity of this problem should impel all stakeholders to ensure that data sets driving BiOp RPAs are valid and based on verifiable usage/exposure patterns obtained from end-users and industry sources. The manifest gravity of vector-borne disease prevention, coupled with that of protection of listed species, makes the reliability of that data critical to the goals of all interested parties.

The Agency should be prepared to assess all of the Waters of the U.S. specified under this guidance prior to implementation of state/local government entity public health pesticide applications to control mosquitoes and other potential disease vector species. Furthermore, the Agency should provide clear guidance to applicators charged with ensuring that pests and invasive species are controlled without adverse impacts on endangered/threatened species inhabiting the same ecosystem.

Comment, Line 5379 - The Service states,"…based on our review of the best scientific and commercial data available, it is NMFS' Biological Opinion that….". The absence of citations for any validated risk assessments based upon reliable usage rates and dosages would appear to belie that statement. NMFS cannot elaborate on risks to listed species not having conducted scientifically acceptable risk assessments. Indeed, even a cursory review of a wealth of available risk evaluation literature (including EPA's Reregistration Eligibility Decisions for malathion, naled and various pyrethroid adulticides) would have dramatically altered their conclusions regarding the use of public health pesticides and the need for an extensive monitoring program by the Agency.

Comment, Line 4078 – Mosquito control pesticides applied to protect humans from mosquito-borne disease or during disease outbreaks may also confer protection upon wild and domestic animals at risk from the very same disease. Applications that NMFS states hurt Salmon maybe actually protect other listed species like birds etc. The Service should coordinate development of BiOp RPAs and Reasonable and Prudent Measures (RPMs) with the U.S. Fish and Wildlife Service to ensure that RPAs/RPMs are both internally consistent and not contradictory with service goals.

Comment. A number of incorrect statements are contained in the document. These need to be corrected if the RPAs are to achieve full validity:

> **Line 4081** – The term "*Bacillus thuringiensis*" should more accurately read "*Bacillus thuringiensis israeliensis*". Many subspecies of *Bacillus thuringiensis,* such as *kurstaki* and *aizawai* (targeting moths) and *tenebrionis* (targeting beetles) are used in agriculture and do not affect mosquito larvae. Conversely, the *Bacillus thuringiensis israeliensis* used in mosquito control has no effect on agricultural pests. These bacterial controls are very specific to their target with very few non-target effects. It is essential and appropriate to separate these control modalities in discussions to avoid confusion and improper regulatory policy.
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> **Lines 4082/4083** – Temephos and methoprene are not used for mosquito adulticiding,
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> **Line 4086** – The document states that pyrethrins are used as larvicides as cited from "Anonymous 2003". This is not presently the case as "Pyrenone Tossits", the last labeled usage of pyrethrins for mosquito larviciding was cancelled in 1989 (http://www.pesticideinfo.org/Detail_Product.jsp?REG_NR=00473600002&DIST_NR=004816)

Comment, Lines 4130/4131 - NMFS states that, "The EPA did not identify any differences in the timing, pesticide formulations or application rates to be used between geographic regions for any use pattern." The Service should recognize that the label requirements of temperature for most adulticides stipulates that they be applied at >50°F. This eliminates a great many needed control applications during the cooler periods. This would particularly pertain to the majority of control applications cited in Idaho and New Hampshire (Lines 4142-4143). This temperature restriction would preclude treatments during some periods when Salmon are present (Lines 4138-4139) as mosquito control applications typically made during the cooler parts of the day (dawn /dusk).

Comment, Lines 5467/5468 - To more accurately reflect treatment realities, the line should read "that the *discharge* will not occur in the *species* area at that time of year."

Comment, RPA#1 –The service should post properly-derived NOAELs, if available, for all labeled mosquitocides for listed or surrogate species to which they refer so that mosquito control districts can determine whether they could possibly trip this threshold. It is imperative that the Agency identify the surrogate species for each chemical tested, as it would be impracticable to identify a NOAEL for all of the species in question. It is equally important that NOAELs be taken in their ecologic context, as they are only meaningful on a population level. In the absence of NOAELs, the Agency should refrain from positing overly conservative thresholds bearing no possible relationship to actual usage patterns that would inordinately constrain mosquito control operations to no environmental avail.

Comment, RPA#2 Line 5575 - Predicting quantity and number of applications for mosquito control will be exceedingly problematic. Changing target species composition, rainfall, humidity, fluctuations in prevailing winds, availability of natural predation, destruction or modification of oviposition habitat are but a few variables that could significantly change control strategies over the operational period. Mosquitocide use patterns do not parallel those of herbicides or fungicides.

Comment, RPA#2, Line 5578 – "Identification of any waters of the U.S. to which pesticide pollutants are discharged…" must be clarified in terms of the pending guidance regarding jurisdiction involving "waters of the US."

Comment, Line 5428 "…are economically and technologically feasible…" How is this to be determined, particularly if pesticides used by mosquito control agencies are to be lumped in with those of agricultural users and homeowners?

An example would be the monitoring of permethrin. How is mosquito control usage of permethrin to be differentiated so that the actual discharger is being monitored? The EPA RED revised in 2009 states on page 6 that of all permethrin use, 30% is agricultural in origin, while 55% is applied by professional pest control operators, 41% is applied by homeowners on residential areas, and 4% is applied on mosquito abatement areas. Most of these applicators will not be required to fill out an NOI. Therefore, it will not be technologically feasible to separate permethrin waste streams from their discharge origin.

Comment, Line 6683 - Naturally occurring fish kills are quite common, whereas those of mosquitocide origin are exceedingly rare and involve gross label violations. Both scenarios are now linked, entailing further resource expenditure by requiring water quality data be taken to confirm naturally occurring fish kills. This is particularly problematic if no explicit guidance is stipulated regarding the number of fish required to constitute a kill, lethargy, etc.

The AMCA strongly supports the Services' charter to protect threatened and endangered species from adverse environmental impacts. Nonetheless, we also believe that decisions that can profoundly affect the health and well-being of humans and wildlife be made upon the best available evidence and the prudence to enact them in a sustainable manner for all concerned.

Sincerely,

Joseph M Conlon
Technical Advisor
American Mosquito Control Association