

April 4, 2005

Environmental Protection Agency Mail Code 4101T 1200 Pennsylvania Avenue, NW Washington, DC 20460 Submitted by Email: ow-docket@epa.gov

Re: Interpretive Statement on Application of Pesticides to Waters of the United States in Compliance with FIFRA, <u>Docket ID# OW-2003-0063</u>.

With all due respect, we are appalled that the agency has chosen to dismiss or ignore the serious concerns raised in our original comments for this docket ID number submitted on October 10, 2003, as well as our comments of a related issue submitted on July 21, 2004 ("Labeling Statements on Products Used for Mosquito Control." Docket ID# OPP-2004-0018). Aside from the legal arguments regarding EPA's inappropriate interpretation that the broad mandates of *Federal, Insecticide, Fungicide, Rodenticide Act* (FIFRA) trump those of the *Clean Water Act* (CWA), we view these two recent actions as integrally related. The bottom line is that the agency has no basis or data to support its assessment that there will be no unreasonable harm to public health and the environment.

Pesticide advocates are asking the agency to interpret the use of pesticides in U.S. waters in a way that simply disregards the environmental laws and protections that have been hard fought and scientifically substantiated, as assessed by the agency itself, and result in the protection of public health and the environment from the deleterious long and short effects of pesticide exposure. Yet, on what basis is the agency justifying this move? The agency's determination that FIFRA trumps CWA and that the agency has the right to make such a determination in the first place will most certainly be debated in congress and by the courts. But aside from those contentions, what evidence does the agency have and what assessment has it done to show that unreasonable harm will not be the result of this rule?

We recognize that the push for this rule originates in the agency's laudable effort to ease the burden of public health officials in combating the West Nile virus (WNv). However, CWA protections are critical to help maintain a balanced approach to the management of WNv and provide for short and long-term public health protections.

We submit these comments on behalf of Beyond Pesticides, a national network committed to pesticide safety and the adoption of alternative pest management strategies that reduce or eliminate a dependency on toxic chemicals, New Jersey Environmental Federation, Clean Ocean Action, and Agricultural Resources Center.

We write in opposition to the agency's proposed rule that the application of pesticides to waters of the U.S. consistent with FIFRA do not require a National Pollutant Discharge Elimination System (NPDES) permit under the Clean Water Act.

MISSING DATA

We request the following data from the agency before this proposed rule moves forward:

- 1. What risk assessments have been done for the widespread effects of spraying pesticides on drinking water or wetlands that will increase under the Interim Guidance? If none, how can we weigh the risks and benefits of the exemptions to CWA regulation proposed in the Interim Guidance?
- 2. How will local conditions be considered in order to yield more accurate risk assessments or more efficient risk abatement?
- 3. If the Safe Drinking Water Act (SDWA) does not require testing for mosquito adulticides, and the CWA, which provides for prevention of contamination of water supplies from pollutants like pesticides, will be circumvented under the Interim Guidance, how will drinking water sources be protected from pesticide contamination?
- 4. If suedo-autonomous mosquito abatement districts are not held accountable for label violations to the municipalities, counties, or the state and therefore do not come under the jurisdiction of the regional or federal EPA (as demonstrated in Paonia and North Fork Mosquito Control Districts in Colorado and EPA Region 8 see letter sent to the EPA Inspector General's office February 22, 2005), then how does the agency conclude that the rule will benefit rather than harm public health and the environment?
- 5. What mechanisms are in place to receive and/or investigate reports about misguided or otherwise ill-suited mosquito management practices? What mechanisms are in place to ensure that the effects of the rule do not result

We make the following arguments to support our position:

1. FIFRA and CWA Have fundamental differences and distinct purposes.

- a. The purposes of both statutes, while similar are clearly distinct and nonequivalent.
- b. The CWA statute is more stringent than FIFRA. If one is to take precedence over the other, clearly it should be the stricter of the two.
- c. FIFRA label precautions do not automatically satisfy the requirements of CWA.
- 2. Pesticides are pollutants.
- 3. FIFRA labels are insufficient to protect local waterways.
- 4. Lack of oversight under CWA sends the wrong message to vector control officials that pesticide contamination of water is not of concern and that adulticiding of mosquitoes is a more effective control than other methods.
- 5. Damage from common practices despite warnings on FIFRA labels.
- 6. Public health is made less secure by looser regulations of mosquito control.

FUNDAMENTAL DIFFERENCES BETWEEN FIFRA AND CWA

We believe that FIFRA and CWA are complementary laws that do not cause confusion. As long as these two statutes have fundamentally different standards and methods in determining whether

a pesticide will have unreasonable adverse effects on the environment and/or human health, then it is not acceptable to claim that satisfaction of one automatically satisfies the other – especially when the satisfaction proposed is for the weaker of the two statutes.

The purposes of both statutes, while similar are clearly distinct and nonequivalent. The protective purpose of CWA is "[to restore and maintain] the chemical, physical and biological integrity of the Nation's waters," 33 U.S.C. § 1251(a). FIFRA's purpose is similar in that it seeks to protect human health and the environment from harm caused by pesticides through a pesticide registration system but it is not specifically charged with ensuring the chemical, physical and biological integrity of U.S. waterways.

As stated by the court in <u>Headwaters, Inc. v. Talent Irrigation District</u>, 243 F.3d 526, 531 (9th Cir. 2001), "[t]o resolve whether a FIFRA label controls whether a permit is required under CWA, [the court] must interpret the two statutes 'to give effect to each ... while preserving their sense and purpose." The court further explains, "[w]hen two statutes are capable of co-existence, it is the duty of the courts ... to regard each as effective." <u>Id.</u> (quoting <u>Resource Invs., Inc. v. U.S. Army Corps of Eng'rs</u>, 151 F.3d 1162, 1165 (9th Cir. 1988)).

The CWA statute is more stringent than FIFRA. CWA § 301 has a "zero discharge" standard, meaning any amount of discharge, no matter how small, without a permit, constitutes a violation of the CWA. (See Natural Resources Defense Council v. Costle, 568 F.2d 1369, 1374 (1972)). Risk assessment, on the other hand, used under FIFRA is weaker than a "zero harm" standard. Risk/benefit allows a certain amount of pollution (i.e. risk) in exchange for controversial calculations of benefit and use a threshold of harm (usually one-in-a-million) that can vary upon EPA discretion. Since the CWA statute is more stringent in its oversight of U.S. waterways, FIFRA should not be allowed to override the CWA.

FIFRA label precautions do not automatically satisfy the requirements of CWA. As the Court in Headwaters explains, "...a FIFRA label and a NPDES permit serve different purposes. FIFRA establishes a nationally uniform labeling system to regulate pesticide use, but does not establish a system for granting permits for individual application of pesticides. The CWA establishes national effluent standards to regulate the discharge of all pollutants into the waters of the United States, but also establishes a permit program that allows, under certain circumstances, individual discharges. FIFRA's labels are the same nationwide, and so the statute does not and cannot consider local environmental conditions. By contrast, the NPDES program does just that." Headwaters at 531 (9th Cir. 2001). Put simply, FIFRA's broad labeling requirements do not provide adequate protection against specific, individual impacts to water bodies regulated under CWA.

EPA itself has stated that compliance with a FIFRA label does not ensure compliance with all other laws, such as the CWA. In the Amicus Brief filed in the Headwaters case, the agency stated exactly that. "[I]n approving the registration of Magnacide H, EPA did not warrant that a user's

are, respectively, 220 and 6.4 times EPA's threshold for "acceptable" risk. EPA has taken no action to cancel the use of the chemical.

¹ For example, in a 1999 EPA memo during the reregistration review for Pentachlorophenol (or penta), EPA stated its findings that children exposed to penta treated wood posed lifetime cancer risks as high as 2.2 in10,000 and that contact with the treated wood posed a cancer risk of 6.4 in one million. These risks

compliance with the pesticide label instructions would satisfy all other federal environmental laws." <u>Headwaters</u>, 243 F.3d at 531. <u>League of Wilderness v. Forsgren</u>, 309 F.3d 1181 (9th Cir. 2001) is also worth noting. In that case, the court rules that the aerial application of insecticides over streams and rivers requires a CWA permit.

Without the complimentary oversight of CWA, there is essentially no protection of waterways whose aquatic ecosystems might be particularly vulnerable to certain pesticides. For example, pesticides containing synthetic pyrethroids are extremely toxic to mosquitoes, but they are equally toxic to lobsters, shrimp, nymphs and zooplankton (with LC_{50} values less than 1.0 parts per million). Such pesticides are also deadly to fish, tadpoles, and frogs – all of which may reside in the same aquatic environments that are permitted for use under FIFRA (such as swamps and marshes).

Under jurisdiction of the CWA, (and more specifically NPDES), changes in the chemical composure of waterways are monitored, measured, and generally protected from adverse affects from the application of pesticides. FIFRA, on the other hand, has little information or power over the actual use of a pesticide once it is registered, except that its use must comply with the warnings on the label. In applying a pesticide in or over a waterway, there may be indirect effects such as the killing of beneficial, non-targeted biota, increases in cumulative toxicity levels and combinations of separately applied pesticides that synergize to increase the overall levels of toxicity. Such indirect affects can impact waterways differently. Each waterway should be monitored separately upon the application of pesticides to ensure that the integrity of the aquatic ecosystem is maintained. These dangers are insufficiently guarded by FIFRA alone.

PESTICIDES ARE POLLUTANTS

By not recognizing that pesticides can be pollutants to the environment, and to waterways in particular, the agency is doing a great disservice to conservation and environmental protection. In contradiction to the agency's reasoning, we believe that Congress did make an exhaustive list of every single pollutant and that it did not intend for pesticides to be excluded from its definition of pollutant (even as "chemical wastes"). This is apparent in CWA § 502(6)(13), which reads,

"The term 'toxic pollutant' means those pollutants, or combinations of pollutants, including disease-causing agents, which after discharge and upon exposure, ingestion, inhalation or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will, on the basis of information available to the Administrator, cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunctions in reproduction) or physical deformations, in such organisms or their offspring."

As Senator Edmund Muskie, a primary sponsor of the CWA, stated: "Sometimes a particular kind of matter is a pollutant in one circumstance, and not in another" (117 Cong. Rec 38,838). This statement underscores the importance of considering each discharge of pesticide on a case by-case basis. Since FIFRA does not specifically consider the composure of individual water bodies, or consistently test and regulate the synergy of products, multiple applications, or the

simultaneous use of several products with distinct purposes (i.e. an herbicide used in the same time period as a larvicide), the need for dual jurisdiction is apparent. Dual jurisdiction will provide the public with a secured state of safety.

Just because a toxic chemical, or pesticide, (and its residue) has an intended and perhaps useful purpose registered by FIFRA does not mean it cannot be classified as a chemical waste. Recent case law supports this view. In <u>Headwaters</u>, the Court held that the residue from acrolein, a toxic chemical that is lethal to fish and other wildlife but beneficial in killing aquatic weeds, "left in [the] water after its application qualifies as a chemical waste product and thus as a 'pollutant' under CWA," <u>Headwaters</u>, 243 F.3d at 533.

In <u>Hudson River Fisherman's Ass'n v. City of N.Y.</u>, 940 F.2d 649 (2d Cir. 1991), the Court reasoned that chlorine, an antimicrobial pesticide, is indeed a pollutant because: (1) "chlorine inhibits much of the life in the aquatic food chain...," and (2) even "the EPA, the agency charged with the administration of the [CWA], in its published regulations and guidelines cites chlorine as an example of a 'pollutant'" Id. at 1101-02 (citing 49 Fed. Reg. 37998, 38028 (1984)).

The Agency further argues that pesticides applied consistent with FIFRA are "on the contrary to" a waste when "applied to perform their intended purpose of controlling target organisms in the environment." This raises the question of efficacy. By this logic, a pesticide that fails to perform its intended purpose is a chemical waste. Complete EPA evaluation of test data on the actual effectiveness of adulticides used for public health mosquito control uses is lacking. Furthermore, a number of studies cast serious doubt on the efficacy of aerial sprays and fogging outside of controlled environments even when used in accordance with label instructions (Vaidyanathan, R. 1997. *J. Am. Mosq. Control Assoc.* 13(4):348-355; Mount et al. 1996. *J. Am. Mosq. Control Assoc.* 12 (4):601-608; Pimentel, David. *BioScience* Vol. 36, No. 2. American Institute of Biological Sciences, 1986.).

FIFRA LABELS ARE INSUFFICIENT TO PROTECT LOCAL WATERWAYS

Of utmost importance, EPA's consideration of this issue must take into account the clarity of the labels themselves and whether or not such labels can adequately protect U.S. waterways to the same degree that the CWA would protect such waterways and their ecosystems.

Due to severe toxicity to fish and aquatic organisms, EPA distinctly requires the labels of the chemicals used in adulticides to state: "do not apply directly to (or over) water". Yet, in a technical provision under the EPA Label Review, it allows such aquatic applications of adulticides, even though the chemicals used are proven to be harmful to aquatic ecosystems (EPA Label Review Manual Chapter 9, section 1.C). In a 2001 conference on the issue, the EPA admitted the discrepancy between the label precaution (do not apply to water) and the actual use of the adulticide. Mosquito control directions... were... "presumed to have their own set of aquatic precautionary statements. This point is not clear on labels themselves; it is only discussed in EPA's Label Review Manual." (EPA 2001 Region II Inter-Regional Mosquito Control Conference Issue III, Recommendation 3 available at http://www.epa.gov/oppf ead1/cb/ppdc/2003/mosquitocont.htm.)

At that same conference, it was noted in EPA recommendations that, "[T]he goal of aquatic hazard statements is not to prevent absolutely any residues from ever reaching water and possibly harming some aquatic organisms. Rather the purpose is to enable the user to recognize and minimize risks, in the context of carrying out an effective public health pest control program." Id.

This lack of clarity between law, intention, and use is simply unacceptable. More unacceptable, is that highly toxic organophosphates (such as chlorpyrifos, malathion, fenthion, and naled) and pyrethroids (such as permethrin, sumithrin, and resmethrin) are allowably – through a technical provision – being deposited into our waterways despite the known hazards to aquatic life of such deposits, without any oversight from the agency that is in charge of maintaining integrity U.S. waterways, the CWA.

The Agency's consideration of the circumstances of how a pesticide is applied (i.e. its consistency with FIFRA requirements) is absolutely relevant but should not be the only measure upon which a pesticide may or may not be harmful to an aquatic ecosystem. EPA's proposal for circumstance (2) is too broad and would endanger our waterways with the deposit of chemicals known to be toxic to fish and other wildlife into waterways without proper oversight from the CWA. Circumstance (2) reads: "The application of pesticides to control pests that are present over waters of the United States that results in a portion of the pesticides being deposited to waters of the United States; for example, when insecticides are aerially applied to a forest canopy where waters of the United States may be present below the canopy or when insecticides are applied over water for control of adult mosquitos".

An example of how FIFRA-approved labels do not protect our wetlands and waterways follows. EPA's fact sheet on synthetic pyrethroids distinctly states, "...pyrethroids are toxic to fish and to bees". (EPA, April 17, 2002.) Yet, the product website for Anvil, a synthetic pyrethroid popularly used by public agencies for widespread mosquito control, brags that, "It's perfect for use around inlets, creeks, swamps and marshes...." (Clark Mosquito Control Products, Inc. http://www.cmosquito.com/cmcp/Anvil.asp last visited 10/5/03).

The FIFRA approved label for both Anvil 2+2 ULV and Anvil 10+10 ULV, which are commonly used aerial and ground application mosquito sprays, state: "Cleaning of equipment or disposal of wastes must be done in a manner that avoids contamination of bodies of water or wetlands. This product is toxic to fish. For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark." However, under "Use Areas" the label also reads, "For use in mosquito adulticiding programs...in vegetation surrounding parks, woodlands, swamps, marshes, overgrown areas and golf courses." (EPA Reg. No. 1021-1688-8329 and 1021-1687-8329).

Swamps and marshes both typically contain surface water and are defined as types of wetlands (The Stony Brook-Millstone Watershed Association, www.thewatershed.org, last visited 10/5/03). The Army Corps of Engineers, the agency that regulates under the CWASec§404, defines a wetland as, "Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas" (Environmental Laboratory. (1987).

"Corps of Engineers Wetlands Delineation Manual," *Technical Report Y-87-1*, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS. p.A14). Surface water is then defined as: "Water present above the substrate or soil surface." Id. A12.

In the United States, wetlands such as marshes and swamps are considered essential components of the natural system and the "filters" of our entire aquatic ecosystem. They harbor groups of species that play a fundamental and imperative role in feeding the rest of the environment. In fact, the disappearance of wetlands has so alarmed biologists that Congress has instituted a national "no net loss" requirement for land management. As Montana's Department of Public Health points out, "Maintaining the natural functions of wetlands and restoring impaired wetlands to natural healthy fully functioning wetlands should be of vital concern to the public and mosquito control agencies." (MT Dept. of Health, Wetlands, http://www.dphhs.state.mt.us/last-visited-10/5/03.)

In the label analysis of just two commonly used insecticide products (Anvil), we find that the only enforcement protection mechanism under FIFRA to protect aquatic life is vague and non-specific (i.e. do not *contaminate wetlands*, do not apply to areas where *surface water* is present, for use in swamps and marshes) despite the toxicity to fish, crustaceans and invertebrates. FIFRA alone does not adequately protect and nurture the species and ecosystems found in U.S. waterways and wetlands in the same manner as does CWA under the permitting process of NPDES.

As a NPDES permit under CWA necessitates a deeper level of specificity in its regulation of the application of pollutants in or over U.S. waterways, it could also be argued that fewer lawsuits would result from the complimentary adoption of both FIFRA and CWA statutes.

LACK OF CWA OVERSIGHT SENDS THE WRONG MESSAGE

The bolstered popularity of widespread public aerial spraying, fogging and ground application of organophosphates (such as chlorpyrifos, malathion, fenthion, and naled) and synthetic pyrethroids (such as permethrin, sumithrin, and resmethrin), coupled with the public concern over West Nile virus, has led the spraying of aquatic environments to become common practice of many municipal mosquito programs, despite the warnings on the labels.

EPA's proposal sends the wrong message to governing bodies across the country. By allowing pesticides to be deposited in and over waterways without a permit the agency is in effect promoting the use of adulticides rather than larvicides. This is mainly because is well recognized that adulticides are cheaper and easier (though largely ineffective and potentially dangerous) than the implementation of a coherent integrated pest management program based on prevention and the biology of the pest (California Dept. of Health Annual Report, August 2001. p.38-42). If one of the intentions of the agency is to put policies in place that better protect public health from mosquito borne disease and transmission, then it must promote the best practices for mosquito and aquatic management that are proven to have the best results. Prevention and larval control as advocated by the American Mosquito Control Association and the Centers for Disease Control and Prevention (CDC) are the two primary ways municipalities can fend off mosquitoes. Given this fundamental fact, coupled with the fact that there are known hazards associated with the

deposition of adulticides specifically to aquatic organisms, it is perverse for the agency to choose mosquito control over environmental protection and proper management.

DAMAGE FROM COMMON PRACTICES DESPITE WARNINGS ON FIFRA LABELS

As the EPA is aware, the number of studies on the impacts of pesticides on aquatic ecosystems and their surrounding area has waned since the phasing out of organocloride products, such as DDT, some 20 to 30 years ago.

However, a lack of current studies does not mean that harm is not occurring. One recent study out of University of California at Berkeley showed that synthetic pyrethroids are not breaking down as presumed, but instead accumulating in creek sediments to levels that are toxic to freshwater bottom dwellers. This study, supplied to the agency by Beyond Pesticides on June 16, 2004, has broad implications for the health and sustainability of freshwater ecosystems and should alert the agency to the potential effect adulticidal spraying with pyrethroids may be having in the environment.² Two studies, one in Georgia and one in California's San Joaquin valley, based on USGS water quality testing results, revealed higher than acceptable concentrations of pesticides (sometimes more than 10 times higher than proposed limits), which are believed to be adversely affecting aquatic life. The studies both listed malathion and chlorpyrifos; two very popular adulticides (U.S. Geological Survey Water-Resources Investigations Report 94-4183. Northwest Coalition for Alternatives to Pesticides and Washington Toxics Coalition. Poisoned Water. 2002). Widespread use of both synthetic pyrethroids and organophosphates over our waterways, without proper oversight of the NPDES under the CWA, will undoubtedly result in unacceptable concentrations. Again, how is the agency assuring the public that this rule will not result in unreasonable harm?

PUBLIC HEALTH IS MADE LESS SECURE BY LOOSER REGULATIONS OF MOSQUITO CONTROL

With this rule, the agency is making the erroneous assumption that the spraying of pesticides (or adulticides in the case of mosquitoes) results in higher protection of public health despite any damage it may cause. The fact is however, that making the application of pesticides in and over waterways easier for mosquito control applicators does not better serve the public, for two main reasons. (1) CDC states that the spraying of adulticides is the least efficient control method for mosquitoes. This rule promotes the use of adulticides over other methods. (2) There is no evidence that the spraying of pesticides in and over waterways for adult mosquitoes (a) reduces or prevents the transmission of West Nile virus incidents, and (b) will not result in unreasonable damage to the local aquatic ecosystem or drinking water sources. In fact, by allowing adulticides to be used over waterways despite label warnings and without oversight under the CWA, the agency is encouraging the uninhibited use of adulticides over more effective methods of mosquito management such as integrated mosquito management, that can better protect public health from mosquito borne illnesses.

CONCLUSION

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² Weston, D. P. et al., "Distribution and Toxicity of Sediment-Associated Pesticides in Agriculture-Dominated Water Bodies of California's Central Valley," *Environ. Sci. & Tech.* 2004.

In conclusion, we ask EPA to immediately assess the actual and potential impacts the rule will have on U.S. waterways, on all areas where NPDES permits are currently required, and on the oversight of any proliferation of pesticide spraying likely to result from this rule. We also ask the agency to promptly reply to each of our concerns, including the list of missing data. As a matter of common law as well as common sense, we identify the need for regulation of our aquatic environments by both FIFRA and CWA. These are statutes with different standards and approaches that serve complementary but different purposes. For this reason, the two should not be "harmonized" down to the lowest statutory standard nor should one trump the other, as proposed by the EPA. We ask EPA to set a standard of limited and precautionary use of pesticides to protect our waterways and environment, our health, and the health of our children.

We understand that policymakers and citizens are concerned about the juggling involved in proper land management and that the public should be protected from health threats like West Nile virus. Unfortunately, this rule helps neither. As organizations in daily communication with the public, we also know that people are equally concerned about the wide scale application of pesticides and its associated health and environmental hazards. The misuse of pesticides toxic to aquatic organisms over our national waterways is unacceptable. This rule pushes EPA out of line with its mandate to prevent unreasonable harm to human health and the environment given that its own risk assessment process determines harm will result. Further, the agency proposes that the untold damage go undocumented. Lastly, EPA's proposal sends the wrong message to municipalities across the country, particularly on the use of adulticides. Mosquito control must come into the 21st century. It is the duty of the federal government to help reduce – not make easier – the spraying of toxic pesticides in order that more effective methods of mosquito and land management are sought and adopted. The dual jurisdiction of NPDES under CWA and label registration under FIFRA is imperative to ensure the preserved integrity of public health and our natural environment.

Sincerely,

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