TESTIMONY OF
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Introduction

Good morning, Mr. Chairman and members of the Subcommittee. I am Ben Grumbles, Acting Assistant Administrator for Water at the U.S. Environmental Protection Agency (EPA).

I am pleased to have the opportunity to discuss EPA's role in public health mosquito control. I would like to explain our role in informing and educating the public on ways to control mosquitoes and I would also like to discuss the current guidance on the National Pollutant Discharge Elimination System under the Clean Water Act (CWA). I am accompanied today by Adam Sharp, Associate Assistant Administrator of the Office of Prevention, Pesticides, and Toxic Substances, who will assist on pesticide-specific issues. EPA is pleased to appear today with Centers for Disease Control and Prevention (CDC), and the National Institutes of Health (NIH) – our federal partners in public health issues.

Federal Pesticide Regulatory Program

The Environmental Protection Agency is responsible for protecting human health and the environment from potential pesticide risks and ensuring that pesticides meet today's more stringent safety standards and offer benefits to society. Under the statutory framework of the Federal Insecticide, Fungicide, and Rodenticide Act ("FIFRA"), EPA regulates the sale, distribution, and use of pesticides in the United States. Before registering (licensing) a new pesticide or new use for a registered pesticide, EPA ensures that the pesticide, when used according to label directions, can be employed without posing unreasonable risks to human health and the environment. All pesticides must undergo a rigorous registration procedure where EPA assesses a variety of potential human health and environmental effects associated with use of the product. The producer of the pesticide must provide data from tests done according to EPA guidelines. The Agency is also continuing to review older pesticides – those initially registered prior to November 1984 – to ensure that they meet current scientific and regulatory standards under a process called reregistration. Reregistration considers the human health and ecological effects of pesticides and results in actions to reduce risks that are of concern. EPA also is reassessing tolerances – pesticide residue limits in food – to ensure that they meet the safety standard established by the Food Quality Protection Act of 1996 (FQPA).

Limiting Mosquito-borne Diseases

Mosquito-borne diseases such as malaria, dengue fever, and West Nile virus, affect millions of people worldwide each year. Since it first appeared in the United States in 1999, West Nile virus has spread to nearly every State. The spread of West Nile virus has brought increased attention to public health mosquito control activities. In 2003, there were more than 9,800 reported human cases of West Nile virus in the United States reported to CDC. As of September 24, 2004, more than 1,600 cases have been reported to CDC.

The Environmental Protection Agency's role in public health mosquito control is to ensure that State and local public health departments and vector control agencies – the mosquito control professionals front lines – have access to effective mosquito control tools that they can use without posing unreasonable risk to human health and the environment. EPA also encourages nonchemical mosquito prevention efforts, such as eliminating standing water around the home that provides breeding sites. Through its outreach efforts, the Agency also empowers the public by promoting an understanding of mosquitoes, the benefits of control measures and the public's role in preventing mosquito-borne diseases. EPA also believes it is important that the public be notified and informed when vector control professionals are applying pesticides so individuals can take appropriate precautions to reduce their exposure. We encourage consumers to read the label directions and precautions for the proper use of insect repellents and insecticides.

EPA provides much of its outreach and technical support through its Web pages with information about mosquito control and pesticides that may be used in control

programs. EPA's fact sheet on controlling mosquitoes around the home registered more than 37,700 hits from April through August of this year. EPA's regional field activities have established a network with State and local health officials to maximize communication and cooperation. Other EPA regional activities have included monitoring product composition, environmental monitoring of ambient water bodies, and surveillance of ground and aerial applications of pesticides.

EPA promotes integrated pest management (IPM) techniques. IPM is an effective and environmentally sensitive approach to pest management that relies on a combination of commonsense practices. IPM programs use current and comprehensive information on the life cycles of pests and their interactions with the environment. This information is used in combination with available pest control methods, by the most economical means, and with the least possible hazard to people, property, and the environment. IPM programs take advantage of all pest management options possibly including, but not limited to, the judicious use of pesticides.

Mosquito control officials seek to reduce the source by eliminating the habitat or modifying the aquatic habitat to prevent mosquitoes from breeding. This includes sanitation measures where artificial containers, such as discarded automobile tires or anything else that can collect water and become mosquito habitats, are collected and properly disposed. Habitat modification may also involve management of impounded water or open marshes to reduce production and survival of the flood water mosquitoes. Mosquito control officials often apply biological or chemical *larvicides* to the aquatic habitats. To have the maximum impact on the mosquito population, larvicides are applied during those periods when immature stages are concentrated in the breeding

sites and before the adult forms emerge and disperse. Modifying or eliminating the habitat, combined with proper use of larvicides, can reduce or eliminate the need for *adulticide* applications. Adulticides are applied by truck-mounted or aircraft-mounted sprayers that dispense very fine “ultra-low volume” aerosol droplets that kill mosquitoes on contact. Adulticides are short-term solutions for when source reduction and larviciding have been inadequate or not feasible. With resources for information and an availability of effective tools, the public health officials can make the right choices that will protect human health and the natural environment.

Storm Water Ponds

Storm water retention ponds have received attention regarding their potential as breeding grounds for mosquitoes. Storm water retention ponds (both wet and dry) represent one important class of controls that are used to address storm water runoff. These ponds are beneficial in that they provide a high level of flood control and storm water treatment, have relatively low maintenance requirements, and are practical for areas with high water tables or poorly percolating soils. Properly designed, operated, and maintained ponds do not contribute to significant increases in mosquito populations. Guidance for wet pond design often suggests a minimum pool depth and establishment of predacious native species in the area such as dragonflies and mosquito fish to help control insect populations. Pesticide application is typically viewed as a last resort to control insects on these basins.

Regulatory Update

EPA's pesticide regulatory programs evaluate the safety of all pesticides to ensure that they meet stringent health and environmental standards required today for pesticides. For all mosquito control products, as well as any other pesticide, registration is the process through which EPA examines: the ingredients of a pesticide; the intended application site and directions for use; and, supporting scientific studies for human health and the environmental effects and exposures. The Agency is also required by law to reassess the potential human health and ecological effects of pesticides registered prior to November 1984, and take regulatory action to eliminate unreasonable risks. EPA is currently re-evaluating pesticides employed in public health mosquito control programs to determine if any changes in pesticide use are necessary. In reassessing these products, the Agency applies the most current scientific standards, and gives special consideration on potential exposure risks to children who may be more vulnerable to risks from pesticides.

We are also taking steps to improve the label language on pesticide products used in wide-area application for the control of adult mosquitoes. The new language will help public health and vector control officials optimize mosquito control techniques while ensuring that use of these products will not pose unreasonable risks to public health or the environment.

The EPA-sponsored National Pesticide Information Center (NPIC), staffed by scientists, continues to respond to West Nile virus inquiries. In 2003, NPIC received 1,817 calls related to West Nile and mosquito control. As of August 2004, NPIC has responded to more than 1,300 inquiries. Furthermore, NPIC's West Nile Virus

Resource Page registered 182,000 hits in 2003 and currently has had more than 104,000 hits in 2004.

Building Partnerships for New Tools

Recognizing the expanding need to develop new tools to respond to potential public health threats, EPA recently met with representatives from Department of Defense (DOD), Department of Agriculture (USDA), Agency for International Development (USAID), the National Institutes of Health (NIH), and the Centers for Disease Control and Prevention (CDC) to facilitate cooperation and coordination among the federal agencies involved in public health pesticides. The new committee discussed ways to pool resources, share information, and encourage development of new techniques and products. Both DOD and NIH are devoting resources to research new methods of control, including finding public health uses for pesticides that are already registered for other purposes. Also participating were representatives from the USDA-sponsored Interregional Research Project No. 4 (IR-4) whose experience with reduced-risk pesticides and information on “minor uses” in agriculture could lend the group expertise in developing similar “minor-use” registrations of pesticides for public health purposes. The committee is scheduled to meet again in December to continue addressing the need for new public health pesticides as efficiently and effectively as possible.

Working with this committee is EPA Pesticide Program’s Public Health Official who helps to ensure implementation of the public health and aggregate risk provisions of pesticide laws. The Public Health Official serves as liaison between the Pesticide

Program and other Federal agencies and actively participates in regulatory activities pertaining to public health pest control issues.

Pesticides and the National Pollutant Discharge Elimination System

EPA recognizes that in the recent past questions arose about the appropriate role of the Clean Water Act in addressing application of pesticides to water, including for mosquito control. CWA prohibits anyone from discharging pollutants through a "point source" into waters of the United States unless they have a National Pollutant Discharge Elimination System (NPDES) permit. The NPDES permit involves limits on what can be discharged, monitoring and reporting requirements, and other provisions to ensure that the discharge does not adversely affect water quality or people's health. The permit specifies general requirements of CWA provisions tailored to activities that discharge pollutants.

Applying pesticides is lawful under FIFRA so long as the application is done in a manner consistent with the pesticide's label instructions. Pesticide labels generally do not require that applicators obtain NPDES permits before using pesticides, including those pesticides that contain label directions allowing direct application to bodies of water. Recent citizen lawsuits have further focused attention on this matter. In addressing these concerns, the Agency, in 2003, issued guidance on circumstances under which NPDES permits are not required for applying pesticides to water. The guidance states EPA's position that, for pesticides applied to waters of the United States in compliance with FIFRA, an NPDES permit is not required in two circumstances:

"(1) 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 or aquatic weeds that are present in the waters of the United States.

(2) 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 mosquitoes."

At the time we issued this guidance, the Agency solicited public comment, and is currently in the process of reviewing those comments. The Agency is evaluating ways to ensure that FIFRA and CWA continue to achieve important environmental goals and to advance the protection of public health while reducing potential areas regulatory confusion.

In closing, Mr. Chairman, I would like to thank you and the Subcommittee for inviting EPA to participate in this hearing. We look forward to working with you and our partners from the CDC and NIH to continue this important work of environmental protection while increasing protection of public health. Adam and I would be happy to answer any questions that you may have.

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