



Good morning, Mr. Chairman and Members of the Subcommittee. My name is David Brown. I am a member of the Mosquito and Vector Control Association of California (“MVCAC”), an Association comprised of 57 public health agencies responsible for the control of mosquitoes and other vectors. I Co-Chair the Association’s Integrated Pest Management Committee, and I am also the Manager of the Sacramento-Yolo Mosquito and Vector Control District. I welcome this opportunity to provide information to this committee regarding West Nile Virus in California, the status of control operations, and some hurdles agencies face regarding maintaining effective control measures now and in the future

West Nile virus was first detected in New York City in 1999. Since that time it has steadily moved west, with California finding its first infected birds and mosquitoes last year. This year, as of October 1, 2004, West Nile virus has been detected in 57 of the 58 counties of California, with 654 humans infected and 18 deaths. There have been 419 equine cases, with 177 of the horses dying from the infection or requiring to be euthanized. Most of the human infections have been located in the southern part of the state, but as the virus becomes more established, Northern California is expected to face serious consequences as well.

Despite having what could be characterized as the most comprehensive mosquito control programs in the United States, California’s unique blend of wetlands, agriculture, and dense urban populations create a public health challenge when addressing mosquito populations. Mosquito control districts have significantly increased surveillance for mosquitoes, dramatically increased control responses in areas where the disease has been detected, and increased education to residents in the communities they serve. Many mosquito control districts have already spent their entire operating budgets against West Nile virus and anticipate depleting their reserves, which will leave California facing serious consequences from this and other mosquito-borne diseases next year.

Adequate funding for mosquito control is critical to fully implement control measures that allows mosquito control districts and other interests to work together to provide wildlife habitat, feed our nation and the world, and protect the public health by controlling mosquitoes. Mosquito control districts have been committed to working with our partners in our respective communities to maintain the quality of life the residents of California have come to expect. Adequate funding has not always been available, however, particularly with the budget woes with which California has faced. Continuing to use the most comprehensive and integrated mosquito control measures recognized throughout the world requires adequate and stable funding, and mosquito control districts in California, or areas that require mosquito control, have not had this since Proposition 13 was passed several years ago. This needs to be resolved to protect the residents of California.

The comprehensive methods used to control mosquitoes include the principles of Integrated Pest Management (IPM). These principles include physical, biological, and chemical control. However, due to recently implemented federal regulations and court decisions, the ability for mosquito control districts to fully employ the principles of IPM have been compromised.

For example, there are several issues relative to the Clean Water Act’s National Pollutant Discharge Elimination System (NPDES) permitting process that are creating difficulties for public health agencies responsible for mosquito control to adequately perform their jobs. Storm water discharge requirements require the construction of devices that are called “Best Management Practices” (BMP’s) that often create habitat for mosquitoes. These BMP’s are often densely vegetated swales or devices that are designed to filter runoff water. Unfortunately, they are designed without any consideration for the potential of mosquito development, and provide excellent egg laying sites for female mosquitoes. In addition to this, the lack of maintenance programs either due to insufficient funding or basic disregard result in the need for direct pesticide applications to address mosquito populations. This is completely counterintuitive to their purpose (applying pesticides to water that is supposed be filtered for purity?), and could be resolved by incorporating good design and maintenance programs into the plans that would sharply reduce the need for pesticide applications. It should be noted mosquitoes at these sites has been implicated in the transmission of West Nile virus.

Further complicating this issue are circuit court rulings that some states have interpreted to mean that NPDES permits are required for the application of federally registered pesticides to Waters of the United States. For example, some states in the Ninth Circuit have developed NPDES permits for the legal application of pesticides to



waters, suggesting this is a “discharge” of a “pollutant” to a water way. In California and Washington, there are currently NPDES permits for the application of herbicides, and a separate permit for the application of mosquito control agents. Idaho, also in the Ninth Circuit, does not issue NPDES permits, yet USEPA will not grant them one, which leaves them in double jeopardy

This interpretation will and has had serious implications to mosquito control. Vegetation management is a critical tool used in any comprehensive IPM plan for mosquito control. However, mosquito control agencies in California have discontinued using this tool due to the substantial costs of water quality monitoring required under an NPDES permit for the application of herbicides. In addition, the herbicide permit in California has been challenged in court, claiming current water quality standards have not been met, which would suggest a significant increase in monitoring costs. Public health agencies cannot afford the costs or potential liability, and have abandoned vegetation management in many aquatic sites.

Increased vegetation in aquatic sites tends to lead to increased mosquito development, as well as reduce the effectiveness of overall mosquito control. Dense vegetation reduces the effectiveness of biological control agents (fish cannot adequately seek out and feed upon mosquito larvae), and vegetation inhibits larvicides from reaching the water surface where mosquito larvae reside.

In fact, vegetation management alone will often eliminate the need for mosquito larvicides by allowing wave action to disturb the surface, disrupting the stagnant habitat that mosquito larvae require.

The NPDES permit that exists in California for mosquito control creates further concerns for the future of effective mosquito control. First, the permit currently provides protection for the application of mosquito larvicides, and is silent on the application of pesticides for adult mosquitoes. This is of concern to public health officials, since there is no other effective means of quickly reducing an adult mosquito population in times of serious infestations or epidemics. However, all of the current lawsuits filed under the Clean Water Act in the country against mosquito control operations, most notably in New York and Idaho, have included the applications of both mosquito larvicides **and** mosquito adulticides, exposing public agencies to the threat of litigation we cannot afford.

Mosquito control in the state of Idaho, which is also in the Ninth Circuit, faces an even more troubling situation. Idaho does not administer the NPDES program, relying instead on USEPA to administer and issue NPDES permits. However, a mosquito control district in Idaho, currently facing a lawsuit because of not having an NPDES permit for the application of mosquitocides, has yet to receive any notification from the EPA as to whether they need a permit or not for their pesticide applications!

Second, the permitting process has the potential of prohibiting certain larvicides that are currently used for mosquito control. For example, the state of Washington has prohibited a certain larvicide based on dubious “scientific” information, despite objections from public health officials and a complete and thorough registration review by the USEPA. This practice will eventually result in an over-reliance of the only remaining larvicide and promote resistance development in the mosquito population. This is contrary to effective pest management, and California mosquito control professionals, with few remaining larvicides left in the market place, can ill-afford the loss of any tools.

Another issue involving the lack of effective public health pesticides to control mosquitoes in California, where we often share pesticides concurrently used in agricultural operations, is very real. Congress recognized this concern about the lack of public health pesticides by unanimously passing the Food Quality Protection Act. However, provisions in this act addressing the review of current public health pesticides and the need for development of future compounds for public health has never been funded, leaving public health agencies without all of the tools they need.

These issues pose concerns about the future of effective mosquito control to protect the public health for the residents in California. We believe, however, that steps can be taken to address these issues before they become insurmountable.

First, to ensure adequate funding is available for mosquito control, the Mosquito Abatement for Safety and Health (MASH) Act should be fully funded. This legislation, passed and signed into law, has yet to receive any appropriation from congress. One in five people in California are not protected by a mosquito control program, and the state of California, with its own financial woes, does not have adequate funding to address this shortfall. Fully funding the MASH Act would address not only this shortfall in California, but address other states concerns as well.

Second, storm water discharge requirements should fully implement measures to address the potential



growth of mosquitoes from the development of BMP's. Requiring engineers that design these BMP's to work with public health agencies should address not only water quality objectives, but reduce mosquito production as well. An example of how this can work is demonstrated by legislation recently chaptered into law in California. AB 1982, introduced by Assemblymember Lois Wolk, requires the California Department of Fish and Game to incorporate best management practices on land they manage that are designed to preserve wetland values, yet reduce mosquito development. Similar efforts should be made under storm water discharge requirements.

Third, the USEPA should immediately undertake a rulemaking clearly stating that the application of pesticides is not a discharge of a pollutant and therefore is not subject to the provisions of an NPDES permit. The MVCAC has been working with the American Mosquito Control Association (AMCA) to address this situation, and is in full support of a petition put forth by the AMCA to EPA to perform such a rulemaking. To date, the agency has failed to respond to the AMCA's petition. The "Interim Statement and Guidance" document released by EPA essentially stating that the application of pesticides is not a discharge of a pollutant and therefore does not require an NPDES permit is a good start, but is nothing more than a memo in parts of the Ninth Circuit and has not been given deference by water quality agencies in these states. USEPA should clearly state its position by acting on the petition submitted by the AMCA and immediately perform a rulemaking.

Lastly, congress should fully fund the provisions of the Food Quality Protection Act relative to public health pesticides. This will ensure public health agencies in California and the rest of the country will have the tools they need to do the job they are mandated to perform.

The presence of West Nile virus in California will not be the only threat our residents will face in a global community where diseases can be transported by a single flight of a commercial airliner. Ensuring we have effective control measures in place not unduly hampered by vague regulations or unfunded legislation is of benefit not only to California, but to the rest of the nation as well.

Thank you for the opportunity to address these issues.