

MOSQUITO AND VECTOR CONTROL POLICY ISSUES

Local, state, and federal governments often consider legislation and regulations that can impact a mosquito and vector control agency's ability to carry out responsive and effective control strategies to protect public health. Below are some of the key policy issues that the Mosquito and Vector Control Association of California (MVCAC) regularly monitors and engages in.

Invasive Mosquitoes and Imported Diseases

Climate change has created more favorable environments for invasive *Aedes* mosquitoes to develop and they continue to spread throughout the state. In 2023, for the first time, locally transmitted dengue cases were reported in southern California. While there have been travel-associated cases of dengue in the state, local transmission is now a new reality that mosquito districts have to contend with. Surveillance and treatment for invasive *Aedes* mosquitoes are very expensive and labor-intensive, and mosquito and vector control districts throughout the state are saddled with skyrocketing costs. Some districts with *Aedes* activity report spending a significant amount of their budget to control the spread of invasive mosquitoes and protect public health.

Public Health Pesticide Use and Availability

Mosquito and vector control districts use Integrated Vector Management (IVM), an evidence-based, data-driven decision making tool used to suppress vector-borne diseases. IVM includes the use of public health pesticides in a safe and environmentally sensitive manner. Public health pesticides used for mosquito and vector control are different from agricultural pesticides. Current public health pesticides are susceptible to limits on available chemistry and mosquito districts face challenges with pesticide resistance. It is critical that mosquito control experts have continued access to public health pesticides and there is a focus on developing new products.

Innovative Technologies

As invasive mosquitoes continue to spread throughout the state, mosquito control professionals are increasingly using innovative but costly technologies to prevent the spread of serious diseases. One innovative control method involves using drones to optimize field operations and enable mosquito control agencies to easily detect mosquito habitats and make precise control treatments. Other innovative technologies include irradiation and *Wolbachia*, which are Sterile Insect Techniques. Having the ability to use innovative technologies as part of an Integrated Vector Management program is critical for protecting public health.



biological

physical

preventive

practices

Vector Management

education

surveillance

chemical

control

Mosquito and Vector Research

The California Vector-borne Disease Surveillance Gateway (CalSurv) is an essential tool in fighting vector-borne diseases. It is recognized in statute (AB 320 – Quirk) as the statewide surveillance database critical to preventing the spread of mosquito-borne diseases. Housed at UC Davis, CalSurv curates local and statewide data to enable 80+ mosquito and vector control and public health agencies to make informed decisions on public health interventions. The state's ongoing support for this online interactive platform is essential as it enables real-time collection, visualization, and analysis of data on vector-borne diseases.

Pollinator Protection

When the risk of disease transmission is high, adult mosquito control applications are made before dawn or after dusk to target mosquitoes when they are most active and avoid day-active pollinators such as butterflies and bees. MVCAC supports science-based efforts to ensure pollinator populations are protected and we work to ensure that legislation and regulations do not have unintended impacts that limit efforts to protect the public from mosquito-transmitted diseases.

Stormwater Management

Balancing strict water quality objectives with public health and safety protections is increasingly complex for stormwater practitioners. Urban stormwater conveyance infrastructure is often a significant source of mosquito production. It is important that trash capture devices are designed so that mosquito control professionals can access and inspect them and apply mosquito control treatments needed to protect public health. MVCAC engages with the State Water Resources Control Board to review trash capture devices during the application phase and works to foster collaboration among stormwater professionals, municipal planners, public health officials, and mosquito and vector control districts.

Stakeholder Collaboration

MVCAC works with water districts, utilities, property owners, and cities and counties throughout the state to increase awareness about the importance of public health mosquito control. We partner on multi-beneficial goals such as limiting urban runoff, serve as a subject matter expert on vector-related issues, and work to increase collaboration so that Californians are protected from mosquitoes and the diseases they can transmit.

