



# Best Management Practices to Ensure Development Plans Eliminate Mosquito Breeding

Developers and planners play an important role in protecting public health by following best management practices to reduce mosquito breeding and protect residents from mosquito-transmitted diseases. Mosquito and vector control districts should proactively work with planners and developers to provide technical guidance and tailored information about mosquito control best practices that is specific to the land use.

Incorporating BMPs into the planning process will help ensure proper water management including conveyance of drainage structures, limitation of emergent vegetation and access for mosquito surveillance and control. Articulating the importance of factoring mosquito control into the planning and development process will help reduce public nuisance-related fines, costly fixes and retrofits and the need for abatement actions.

It is also important to communicate the benefits of proper BMP implementation such as maintaining the health and well-being of residents and how reduced mosquito populations translate to economic benefits. For example, the lack of mosquitoes near commercial shopping developments correlates to enjoyable customer shopping.

## ✓ **Share General Information about the Public Health Impact of Mosquitoes**

Many planners and developers may not know that mosquitoes have a significant impact on human health. Sharing information about the debilitating and deadly impact of West Nile virus is important as is communicating that there are no human vaccines to protect against many mosquito-transmitted viruses which can have long-term health and economic consequences.

## ✓ **Communicate Specifics About Geography, Type of Vector and Disease Presence**

Providing a summary of mosquito biology along with the types of vectors, their seasonal behaviors and disease trends near the development site will help developers tailor the BMPs appropriately. For example, it is important to explain that *Aedes aegypti*, which can transmit Zika, chikungunya and dengue, are active in late summer and early fall.

## ✓ **Reinforce the Need for all Developments to Include Three Universal BMPs**

While all plan checks and technical guidance will need to be tailored appropriately, there are universal BMPs that need to be shared with developers and planners so they can incorporate them into all developments.

1. **Remove all standing water.** Since mosquitoes need water to complete their life cycle, it is critical to design drainage systems to eliminate water that stands for longer than 72 hours.
2. **Limit vegetation and debris.** Vegetation or debris in or on water increases mosquito habitat, mosquito production, biting pressure and risk of mosquito-borne disease. Development plans should remove vegetation or use designs to limit it in water.
3. **Ensure access.** Mosquito control technicians need access to standing water sources for mosquito inspection and treatment. All developments must ensure safe and easy access to water sources, basins or vaults to allow for effective inspection and mosquito treatment.

### ✓ Tailor Plan Checks and Recommendations According to Land Use

Depending on the type of land use, the development will require specific guidance and recommendations in the plan check analysis. Best management practices for the following land uses can be found in the [CDPH Best Management Practices for Mosquito Control in California, pages 5-19](#).

- Agricultural irrigation and drainage
- Dairies
- Rice fields
- Stormwater systems
- Managed wetlands
- Urban and suburban mosquito sources

Positioning mosquito and vector control districts as partners with planners and developers will help forge a productive working relationship and pave the way for successful outcomes. Throughout the process it is important to reinforce this message from the CDPH BMP plan:

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***“Effective mosquito-borne disease surveillance and mosquito control to protect public health are dependent upon factors that may fluctuate temporally and regionally. Such factors include mosquito and pathogen biology, environmental factors, land-use patterns, resource availability; strategies that incorporate BMPs are the most effective means by which mosquito control can be conducted and individualized to specific situations.”***

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