

## ...Mosquitoes



There is historical evidence that many mosquito-borne disease outbreaks have been associated with wetlands.



From the early California gold rush days in 1840-70s, malaria was associated with swampy areas, known today as wetlands.



In California, major encephalitis outbreaks occurred in the late 1950's and mid-1980's, causing several deaths, and is strongly linked to wetland habitats.



In 2003, West Nile virus was first discovered in California in national wildlife refuges along the Salton Sea in Imperial County.



Shortly after its discovery in Imperial County, West Nile virus, the most serious vector-borne threat California has seen in 50 years, spread rapidly and was detected in urban areas along the Rio Hondo and San Gabriel River corridors and Whittier Narrows wildlife preserve.

## How Can Communities Help Maintain Healthy Wetlands?

Residents must become active in maintaining healthy wetlands in their community by:

- Maintaining the wetland's water quality by not dumping human or animal waste.
- Preventing wetland degradation by not contaminating storm runoff water sources, such as catch basins and gutters with grass clipping, trash, fertilizers and other harmful chemicals.
- Reducing sedimentation by not dumping soil or fill material in wetlands.
- Avoiding displacing native animal and plant species by not releasing exotic animals and plants into wetlands.

## Where Can I Get Further Information?

Information and assistance can be obtained by contacting your mosquito control agency. Call 1-877-WNV-BIRD (968-2473) and enter your zip code to determine the mosquito control agency nearest you. Additional information may be obtained via the following publications:

UCANR Publication 8125 by Marco Metzger, Ph.D., CDHS-VBDS

UCANR Publication 8117 by William Walton, Ph.D., UC Riverside

UCANR Publication 7451 by Bruce Eldridge, Ph.D., UC Davis

These documents can be found at <http://anrcatalog.ucdavis.edu>

This brochure is provided by the Mosquito and Vector Control Association of California.



## Mosquito and Vector Control Association of California

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# Wetlands In Your Neighborhood –

## The Hidden Challenge...



**MVC**  
MOSQUITO AND VECTOR CONTROL  
ASSOCIATION  
OF CALIFORNIA



*Wetlands provide numerous benefits to our communities, but if poorly designed and left unmanaged, produce mosquitoes and other nuisance organisms, endangering public health and safety.*

### ***What Is A Wetland?***

Wetlands occur in every state in the nation. They vary in size, shape and type because of differing climate, vegetation, soils and hydrologic conditions.

Wetlands are transitional lands between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is often covered by shallow water during some parts of the year.

Three general categories of wetlands are recognized: 1) natural wetlands, 2) constructed (treatment) wetlands and 3) created wetlands.

### ***How Do Wetlands Benefit People?***

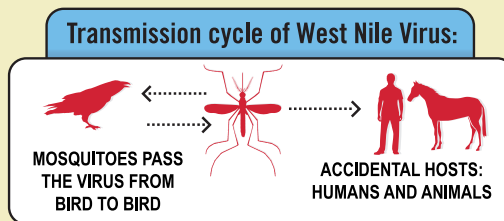
Wetlands provide benefits to us by improving water quality, storing floodwater, offering habitat for wildlife, supporting biodiversity, providing valuable open space and creating recreational opportunities.

### ***What Are The Drawbacks To Wetlands In Urban Areas?***

Increasing connection between wetlands and residential/commercial areas have increased the ability of vectors (mosquitoes, rodents and other mammals) to enter and transmit diseases in urban environments.

Mosquito to wild bird interactions in a wetland habitat can maintain and amplify various encephalitis viruses known to infect humans and animals.

Wetland habitats may also provide breeding sources of nuisance insects, annoying nearby residents and reducing intended recreational activities.



### ***Is Adequate Funding Needed To Maintain And Manage Wetlands?***

Yes. Wetlands and other aquatic projects that benefit or enhance the environment must meet the mandates of public health agencies



responsible for controlling mosquitoes and vector-associated diseases.

To be successful, wetland projects should proceed only if adequate, long-term funding is provided throughout the life of the project for continuous management of water quality, aquatic vegetation and mosquito control.

### ***If Not Properly Managed, Can A Fine Be Imposed?***

The California Health and Safety Code clearly defines and empowers mosquito and vector control districts, enabling them if necessary, to file abatement notices and impose punitive fines up to \$1,000 per day until the public nuisance is abated by the responsible property owner.