

What is West Nile Virus?

West Nile virus (WNV) is transmitted by female mosquitoes. It is prevalent in parts of Asia, Eastern Europe, Africa, and the Middle East and was first detected in the United States during 1999 in New York City. The virus spread rapidly across the United States and was reported in humans, mosquitoes, birds, and other animals in 44 states by the end of 2002. West Nile virus continues to spread and officials expect the virus to become firmly established throughout the continental United States by the end of 2003. In California, WNV was found in mosquitoes and birds in August of 2003, and one human case of unknown origin was reported in 2002. West Nile virus is closely related to St. Louis encephalitis virus which is found in the United States, including the San Gabriel Valley.

How Do People and Animals Get West Nile Virus?

West Nile virus is transmitted to people and animals by infected mosquitoes. Only certain species of mosquitoes carry the virus and very few mosquitoes are actually infected. A mosquito first becomes infected by feeding on a wild bird that has virus in its blood. The mosquito transmits WNV in its saliva when it bites another person or animal. Humans and horses are "accidental hosts" for WNV; mosquitoes that bite them do not become infected. The virus is most prevalent from May to October when mosquitoes are most abundant.

In *rare* instances, West Nile virus can be transmitted through blood transfusion, organ transplants, and from mothers to fetuses and breast feeding infants. Pregnant and nursing mothers are encouraged to avoid mosquitoes. Consult a physician for additional information.

Which Animals Get West Nile Virus?

An infected mosquito can bite any animal, but not all animals will become infected. The disease most often affects birds, but occasionally causes disease in other animals as well. Dogs and cats only rarely show illness if infected with WNV.

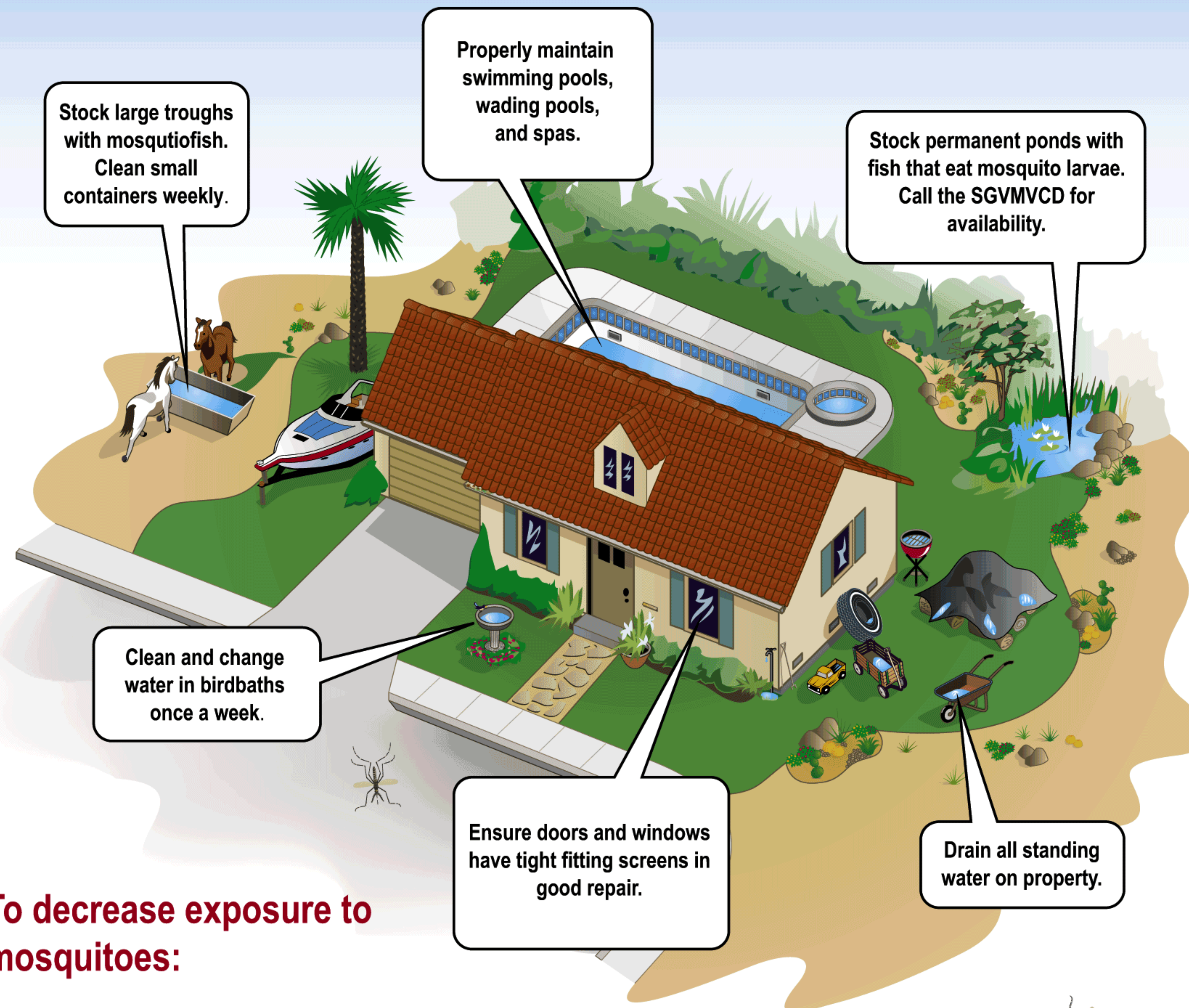
Birds

Wild birds are the animals from which mosquitoes primarily acquire the virus. Although many birds that are infected with WNV will not appear ill, WNV can cause serious illness and death in some birds. The most severe illnesses are seen among the corvids (including crows, jays, ravens, and magpies). Dead American crows are the most commonly reported bird infected with WNV.

Horses

Horses are also susceptible to WNV. The disease does not seem to be specific to a particular breed or age of horse. Clinical signs of disease consist of central nervous system abnormalities similar to those caused by infection with Eastern equine encephalitis (EEE) and Western equine encephalomyelitis (WEE) and is fatal approximately 30% of the time. A WNV vaccine is now available for horses.

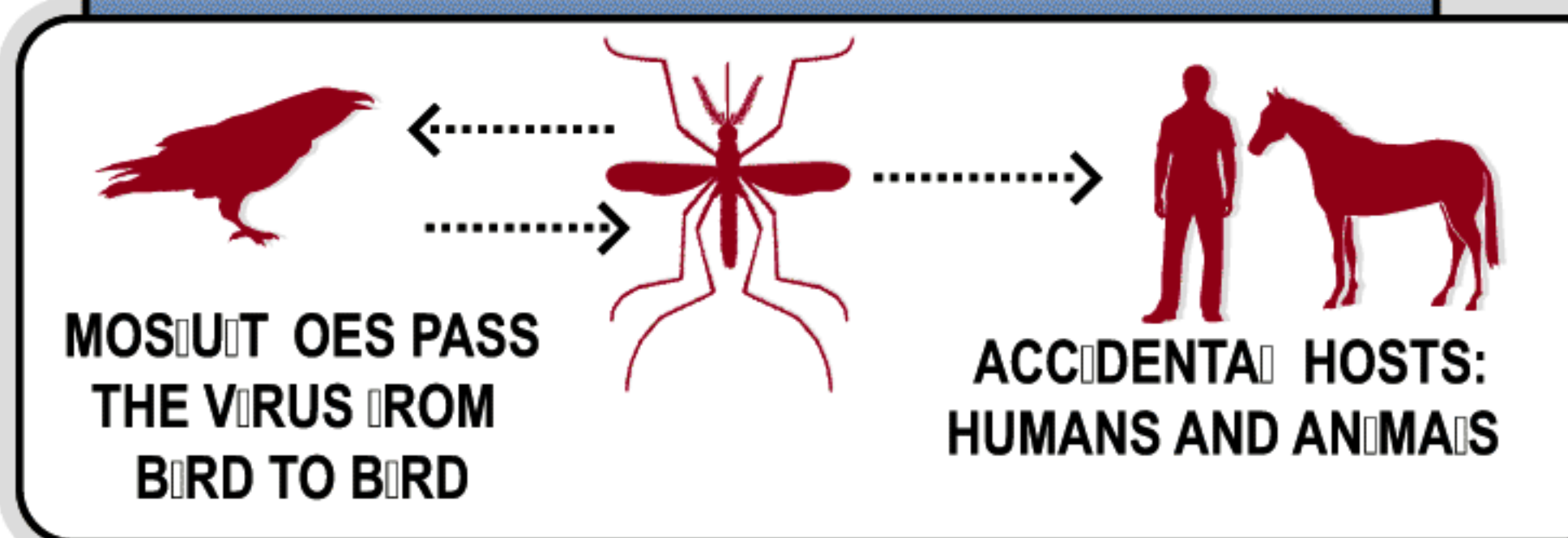
How can I protect myself and my family from West Nile Virus?



To decrease exposure to mosquitoes:

- > **Avoid outdoor activity at dawn and dusk during the mosquito season (May to October). This is particularly important for the elderly.**
- > **Wear loose fitting long pants and long sleeve shirts when outdoors**
- > **Use approved mosquito repellents containing DEET. Be sure to read and follow the manufacturer's directions for use.**

Transmission cycle of West Nile Virus:



What You Can Do to Help

Eliminate Backyard Mosquito Breeding Sources

- 1) Properly maintain swimming pools and spas by filtering, cleaning, and chlorinating regularly. Report neglected or abandoned pools, hot tubs, or fish ponds to the San Gabriel Valley Mosquito & Vector Control District.
- 2) Routinely check and empty any containers that may hold water in your yard. Store inverted or indoors.
- 3) Clean and change water in birdbaths at least once a week.
- 4) Stock ornamental ponds, fountains, and water gardens with mosquitofish and remove excess vegetation. Contact the District for mosquitofish availability.
- 5) Seal septic tank covers and other openings tightly to prevent adult mosquitoes from entering to lay eggs.
- 6) Regularly clean rain gutters of debris to prevent water from puddling.
- 7) Avoid over-irrigating lawns and fields. Drain or fill low areas that accumulate water.
- 8) Repair broken or leaking faucets and watering equipment.
- 9) Contact the District if you are having problems with mosquitoes.

Dead Bird Surveillance Program

If you find a bird that has recently died, particularly a crow or other corvid (i.e. raven, jay, or magpie) please call the California Department of Health Services hotline at 877-WNV-BIRD. Not all birds will qualify for testing; however they will record all reports of dead birds. To move or discard a carcass, wear rubber or latex gloves. If gloves are not available, use a plastic bag turned inside-out over your hand and invert the bag to surround the bird. Seal and discard in the trash if the bird will not be picked-up for testing.

What are the symptoms of West Nile Virus?

Most people who are infected with WNV have no symptoms. Of those who become ill, mild symptoms may include fever, headache and body aches, nausea, a skin rash on the trunk of the body, and/or swollen lymph nodes. Symptoms of mild illness will generally last a few days. In severe cases, encephalitis (inflammation of the brain), meningitis (inflammation of the membrane surrounding the brain), and meningoencephalitis (inflammation of both the brain and the membrane) may occur. Severe symptoms may include high fever, headache, neck stiffness, disorientation, coma, tremors, paralysis, and possibly death. Neurological damage may be permanent. At greatest risk are the elderly and those who have weakened immune systems.

The time between the mosquito bite and the onset of illness (the incubation period) ranges from 5-15 days in humans. It is estimated that 1 in 150 people who are infected with WNV will require hospitalization.

West Nile virus may affect birds and other animals. Birds, particularly crows and jays, infected with WNV can become ill and die, however most infected birds do survive. West Nile virus does not appear to cause extensive illness in dogs or cats.

What is the San Gabriel Valley Mosquito & Vector Control District doing to prevent the transmission of West Nile virus in the Valley?

We cannot prevent WNV from entering the San Gabriel Valley; however, reducing the mosquito population reduces the chance of WNV transmission and infection. The San Gabriel Valley Mosquito & Vector Control District routinely surveys for mosquito-borne diseases such as West Nile and St. Louis encephalitis and Western equine encephalomyelitis. Adult mosquitoes are routinely trapped and tested for these viruses. Sentinel chicken flocks are strategically placed throughout the Valley and are tested every 10 days for infection. Wild bird surveillance provides an opportunity to test important reservoir hosts for infection with WNV. Our Technicians survey the District every weekday for sites where mosquitoes may breed and eliminate or control these as necessary. The District provides free home and yard inspections for mosquito sources and provides mosquitofish to interested residents for placement in ponds, water gardens, and watering troughs.



The District works to educate the public by participating in local community events and hosting lecture programs for local schools, civic organizations, and homeowners and neighborhood associations. Please contact the District if you or your association would like to request a speaker for an event or a tour of the District, free of charge.

San Gabriel Valley Mosquito & Vector Control District
1145 N. Azusa Canyon Road
West Covina, CA 91790
626-814-9466
www.sgvmosquito.org

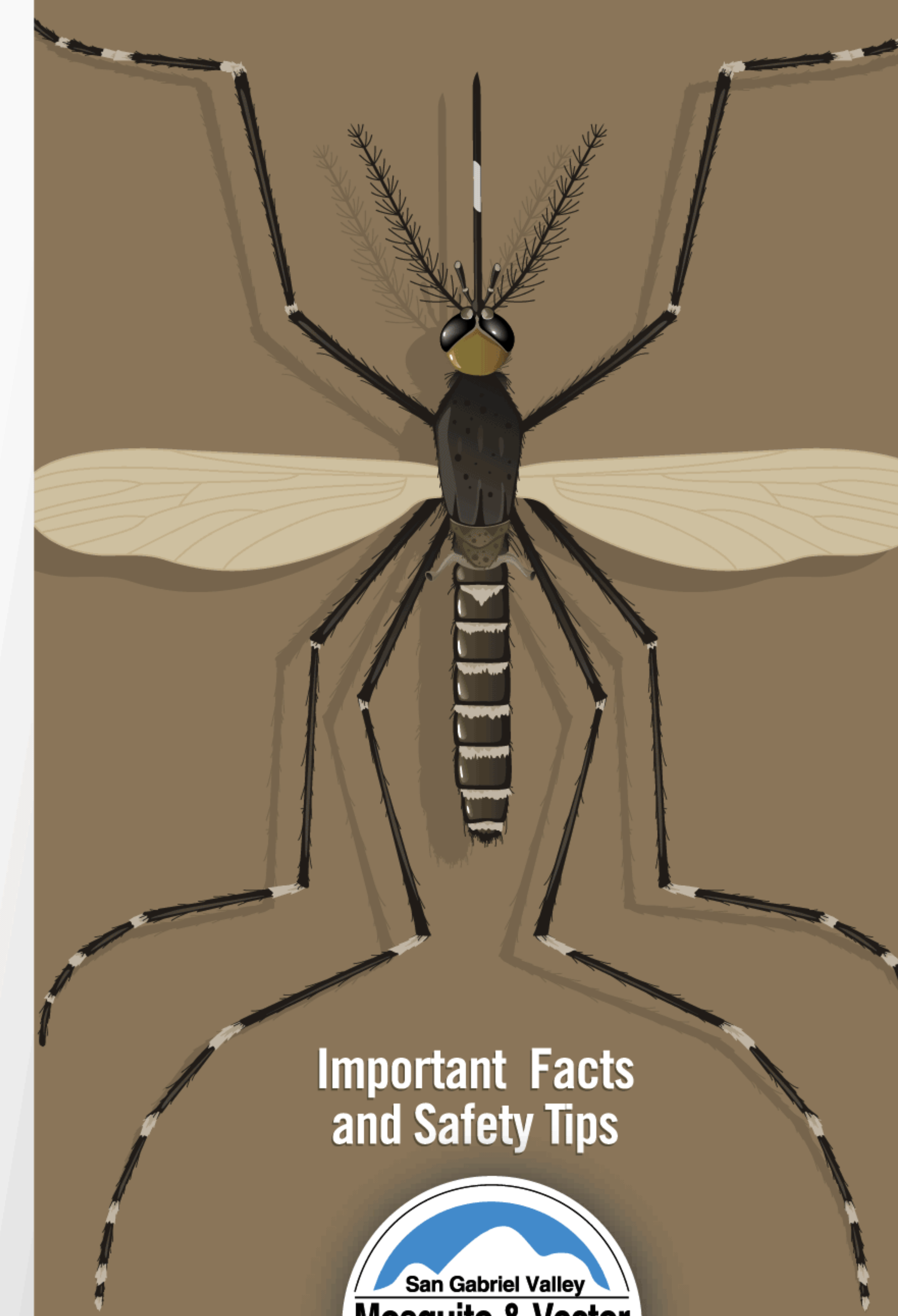


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West Nile Virus

Protect yourself and your family



Important Facts and Safety Tips



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More Information:
LA County WNV Hotline: 800-975-4448
<http://lapublichealth.org/acd/VectorWestNile.htm>
www.cdc.gov/ncidod/dvbid/westnile

To Report Dead Birds:
877-WNV-BIRD (968-2473)
www.westnile.ca.gov

WNV in Horses:
WNV in Horses:
CDFA Animal Health Branch: 916-654-1447
www.cdfa.ca.gov/ahfss/ah/wnv_info.htm

