MOSQUITO POPULATIONS CAN BE KEPT FROM EXPLODING!
THE EFFORT TO DO THIS TARGETS THEM AT THE LARVAL AND PUPAL STAGES, BEFORE THEY BECOME AIRBORNE THREATS TO PUBLIC HEALTH.

Mosquitoes lay their eggs in or near water, or on soil that eventually will be flooded. Larvae and pupae can be found wherever there is standing water. A few items around your home where mosquitoes can breed include: old tires, street basins (storm drains), buckets, containers, neglected swimming pools, the bottom dish beneath flower pots, bird baths, perches, clogged rain gutters, children’s inflatable pools or other kids toys, decorative ponds, etc.

Most adult mosquitoes remain within one mile of where they hatched, although a few species range to 20 miles or more. Mosquitoes have been around since the era of dinosaurs. They’re not going away.

Mosquito borne diseases kill more people around the globe than any other single disease factor.

There are 3,500 species of mosquitoes around the world, 170 in North America. 24 mosquito species live in Sacramento and Yolo counties. Only the female mosquitoes bite us, the blood they suck provides protein for making eggs.

Female mosquitoes live from three to 100 days, males from 10 to 20 days. The female of most species can lay 100 to 300 eggs at a time, and she may lay 1,000 to 3,000 eggs during her lifetime.

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Mosquitoes need water to complete the first three stages of life that precede adulthood. These stages are: egg, larva, pupa. Remember, no stagnant water means no mosquitoes!

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MOSQUITO-BORNE DISEASES KILL MORE PEOPLE AROUND THE GLOBE THAN ANY OTHER SINGLE DISEASE FACTOR.

IN THE UNITED STATES, MOSQUITOES VECTOR – OR SPREAD – WEST NILE VIRUS, VARIOUS TYPES OF ENCEPHALITIS, DOG HEARTWORM, MALARIA AND DENGUE FEVER.
MOSQUITOES TRANSMIT DISEASES

Some of those, such as yellow fever and malaria, have been largely eradicated in the United States, although they have wiped out populations in the past. Other mosquito-borne diseases like dengue fever wreak havoc in other parts of the world and sometimes we see them in our area, too. However, they mainly affect people who have traveled to other countries and contracted the diseases there. Other forms of mosquito-borne encephalitis and dog heartworm — still turn up in this area.

But the main diseases of concern in the Sacramento Valley is West Nile virus, which first appeared in the U.S. in 1999 and is now in California. The virus can now be found in all 58 California counties, and it is now the number-one disease transmitted by mosquitoes. West Nile virus can be carried by various types of mosquitoes, the main ones being the common house mosquito (Culex pipiens) and the mosquito species (Culex tarsalis). When these mosquitoes bite birds infected with the virus, and then bite humans, they can transmit the disease. Both mosquitoes can be active and transmit the virus year-round, depending on temperature, can be active and transmit the virus.

For 80 percent of people infected with the virus, there are no symptoms; a person can harbor West Nile virus without even knowing it. But for the 20 percent of people who do get sick, the symptoms of infection usually last 3 to 4 days. These symptoms can include fever, headache, fatigue, muscle aches, occasional skin rash, eye pain, or reddened lymph glands, and can last for two to three weeks for most people. For approximately 1 in 150 infected people, a West Nile virus infection can develop into something far more serious, with symptoms that include fever, seizures, weakness, changes in mental status, and paralysis. In rare cases, West Nile virus can result in death. Age, pre-existing poor health, a suppressed immune system, high blood pressure and diabetes can make a person more susceptible to the virus.

In 2008, California registered 449 human infections, with 15 of those people dying. In late cases, West Nile virus is transmitted via organ transplant or blood transfusions, or by a mother transmitting the virus to her child. It cannot be transmitted by casual contact — touching, kissing or breathing. West Nile virus is transmitted by mosquitoes, which pick up the virus when they bite birds already infected by the virus. Some birds — specifically the corvid family, which includes crows, ravens, jays and magpies – are especially susceptible to it. Some birds – specifically the corvid family, which includes crows, ravens, jays and magpies – are especially susceptible to it. West Nile virus is transmitted by mosquitoes, which can pick up the virus when they bite a bird already infected by the virus. The virus can then spread to other birds, which can then spread the disease to other birds, which can then spread the disease to humans.

Marie spent two weeks in the hospital — partially blind, unable to eat. “There’s no cure for West Nile virus,” she said. “All they can do is treat your symptoms.” The doctors told her that her organs were shutting down, and that death was not an option.

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WHAT CAN THE PUBLIC DO TO PREVENT THE MOSQUITO POPULATION FROM EXPLODING?

Once you become aware that mosquitoes need standing water to develop and that mosquito prevention focuses on eliminating these breeding spots—along with keeping mosquito larvae and pupae from growing to adulthood where they can fly, bite, and infest—that you’re better equipped to eliminate these places in your environment where mosquitoes can breed.

THINK LIKE A MOSQUITO

Mosquitoes don’t really think; they’re more like a microchip with a set of programming: find bird or mammal, suck blood; find water, lay eggs. But knowing what mosquitoes look for around your home to further their species can help keep that local mosquito population explosion to a minimum.

STREET BASINS (STORM DRAINS) have been identified as problem areas where many mosquitoes breed. Drainage from lawns mixes with garden waste in street basins to provide the perfect environment—water and decaying organic waste—where mosquito populations explode. One remedy: Instead of piling your lawn and garden clippings in the gutter, put them in a garden waste container.

RAIN GUTTERS designed to catch and funnel rooftop runoff into drains can provide places for mosquitoes to breed, should they get obstructed with leaves and other material. Check your gutters to make sure that water can flow unimpeded, so mosquitoes won’t use them as a nursery.

GRASS PILES can create pools of standing water, which soon attract mosquitoes. When possible, place your grass piles in a garden waste container.

STANDING WATER: Remember that standing water produces mosquitoes. And it doesn’t have to be swimming pool-sized; even a glass of water will result in mosquitoes. Check your pet watering bowls, bird baths, buckets, old tires, and plant pots— if water can gather, mosquitoes will breed.

Help a neighbor: If you see conditions present for mosquitoes breeding on their property, bring it to their attention, and don’t be afraid to ask if you can help them correct the problem. And if you name a problem on your property but need help dealing with it, ask us to help you.

HOW TO PROTECT YOURSELF

Protecting yourself from bloodthirsty mosquitoes is a matter of common sense. The Sacramento-Yolo Mosquito & Vector Control District recommends following the 7 Ds of Mosquito Prevention to stay safe during months when mosquitoes are active.

DRAIN any standing water that may produce mosquitoes. Today’s puddle is tomorrow’s mosquito nursery.

DAWN and DUSK are times to avoid being outside. This is when mosquitoes are most active. Remember: When the sun goes up or it’s going down, that’s when mosquitoes are flying around.

DRESS appropriately by wearing long sleeves and pants when outdoors. Yes, on some hot days, it’s hard to think about wearing additional clothing—but those extra clothes may protect you from mosquito bites.

DEFEND yourself against mosquitoes by using an effective insect repellent, such as DEET (N,N-Diethyl-m-toluamide), Picaridin or Oil of Lemon Eucalyptus. Make sure you follow label directions! Repellents keep mosquitoes away, so they won’t bite you.

DOOR and window screens should be in good working condition. Keep doors closed and make sure your screens are free of holes. This will prevent mosquitoes from entering your home and biting you when you are asleep.

DISTRICT personnel are available to address any mosquito problem you may be experiencing. Call the District at 1-800-429-1022.

WHAT YOU CAN DO

SWIMMING POOLS ARE A MAJOR PLACE WHERE MOSQUITOES CAN BREED

ONE NEGLECTED SWIMMING POOL CAN RESULT IN MILLIONS OF MOSQUITOES WHICH CAN INFECT AN ENTIRE NEIGHBORHOOD PUTTING YOUR HEALTH AT RISK.

Use your containers! Green waste on the streets gets into drains and gutters, creating mosquito habitats.

You can request mosquitofish from the District for an un-maintained pool by calling 1-800-429-1022, or by going online at www.FIGHTtheBITE.net.

If you have a smaller portable or Doughboy pool, consider draining the water.

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In 1915, amid a growing awareness that mosquitoes transmit disease, the California Legislature adopted the Mosquito Abatement Act, which provided the impetus for creating mosquito abatement acts throughout the state. On June 18, 1946, the Sacramento County-Yolo County Mosquito Abatement District was formed to protect the public from mosquito-transmitted diseases and provide relief from serious pest nuisances. The name was changed in July 1990 to better reflect the District’s expanded services regarding ticks, yellow jackets and other vectors. The District is governed by a Board of Trustees; its members are appointed by municipal and county governments the District serves. The Sacramento-Yolo Mosquito & Vector Control District covers 2,013 square miles of territory. Its 74 employees are dedicated to providing safe, effective and economical mosquito and vector control in the two counties served by the District, which also emphasizes a strong program to inform and educate the public.

The District is a forward-thinking agency that employs Integrated Pest Management (IPM), a comprehensive scientific approach to implement vector control strategies and management tactics. The District has been honored twice with the IPM Innovator Award from the Department of Pesticide Regulation, for developing and promoting effective methods of mosquito and other pest control that reduce the risks associated with using traditional chemicals and promote a healthier environment.

IPM incorporates five components:

- **Public Information and Education** uses media, advertising, governmental affairs, community events, school programs and presentations to various organizations to inform people about mosquito control, West Nile Virus and prevention methods.

- **Mosquito and vector surveillance** monitors mosquito activity, mosquito populations, climate change and other environmental factors by testing mosquitoes, sentinel chickens and wild birds for the presence of virus or parasites; this information helps guide all control efforts.

- **Biological control** uses living organisms to control a biological pest. For example, the mosquitofish (Gambusia affinis), when placed in abandoned pools eats mosquito larvae before they grow to adulthood.

- **Physical control**, or manipulating the environment to reduce mosquito breeding sites, includes promoting effective drainage, controlling vegetation and timing irrigation appropriately.

- **Microbial and chemical control** is the prudent use of chemical compounds (insecticides) to reduce mosquito populations; these are used when biological control methods have not maintained mosquito numbers below a tolerable level.

Some other services the District provides:

- To keep neglected or un-maintained swimming pools from turning into breeding grounds for mosquitoes, the District will deliver mosquitofish to pools so the fish can eat mosquito larvae, before they turn into blood-sucking adults. Mosquitofish are offered free of charge for placement in pools, ponds, animal troughs or wherever else they may be needed. Street basins, or storm drains, are also major mosquito breeding spots, and yard waste placed at curbside can clog the basins, so the District actively encourages people to place yard and garden clippings in green waste containers instead of loose on the street.

- Another breeding spot is in cemeteries, where flower vases can allow water to stagnate. The District works with cemeteries to add water crystals to the vases that turn water into a gel that keeps flowers fresh and keeps them from turning into mosquito nurseries. The District encourages cemetery visitors to keep the water crystals in the vases.

- Other services include working with ticks that may transmit Lyme Disease and dealing with yellow jackets if they present a public health threat.

**ABOUT THE SACRAMENTO-YOLO MOSQUITO & VECTOR CONTROL DISTRICT**

1.800.429.1022
FIGHTtheBITE.net